

# REGION 7 REGIONAL INTEGRATED CONTINGENCY PLAN

## REGION 7 REGIONAL RESPONSE TEAM



**THIS DOCUMENT COMBINES REQUIREMENTS NEEDED FOR REGION 7's  
REGIONAL CONTINGENCY PLAN and  
AREA CONTINGENCY PLAN**

**January 2024**



Iowa



Kansas



Missouri



Nebraska



EPA



USCG



DOC



DoD



DOE



HHS



USDA



FEMA



DOI



DOT



DOL



DOS



GSA



DOJ



NRC

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 7 INTEGRATED CONTINGENCY PLAN

***TO REPORT A SPILL OR RELEASE***

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**National Response Center**  
**Emergency Response 24-Hour Number: (800) 424-8802**

National Response Center  
United States Coast Guard Headquarters  
Washington, DC

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**EPA Region 7 Regional Emergency Operations Center**  
**Emergency Response 24-Hour Number: (913) 281-0991**

United States Environmental Protection Agency  
Emergency Response Branch  
11201 Renner Blvd.  
Lenexa, KS 66219

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**United States Coast Guard**

**District Commander, Eighth District**  
**24-Hour Emergency Number: (855) GULF-SAR (485-3727)**  
Hale Boggs Federal Building, Room 1328  
500 Poydras Street  
New Orleans, LA 70130

**Sector Upper Mississippi River, Sector Commander**  
**24-Hour Emergency Number: (314) 269-2332**  
1222 Spruce Street, Suite 7.103  
Saint Louis, MO 63103

**Sector Lower Mississippi River, Sector Commander**  
**24-Hour Emergency Number: (901) 521-4822**  
2 AW Willis Avenue  
Memphis, TN 38105-1502

**Sector Ohio Valley, Sector Commander**  
**24-Hour Emergency Number: (502) 779-5400**  
600 Martin Luther King Jr. Place  
Louisville, KY 40202

**Marine Safety Unit Paducah**  
**24-Hour Emergency Number: (270) 217-0959**  
Commanding Officer  
225 Tully Street  
Paducah, KY 42003

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**Iowa Department of Natural Resources  
Emergency Response 24-Hour Emergency Number  
(515) 725-8694**

502 E. 9th Street  
Des Moines, IA 50319-0034

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**Kansas Department of Health and Environment  
Emergency Response 24-Hour Emergency Number  
(785) 296-1679  
(also call Kansas Division of Emergency Management 800-905-7521)**

Curtis State Office Building  
1000 SW Jackson Street  
Topeka, KS 66612

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**Missouri Department of Natural Resources  
Emergency Response 24-Hour Emergency Number  
(573) 634-2436**

2710 West Main  
Jefferson City, MO 65102

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**Nebraska Department of Environment and Energy  
Emergency Response 24-Hour Emergency Number  
(402) 471-2186 (8am-5pm)  
(402) 479-4921 (5pm-8am)**

1200 "N" Street, Suite 400  
Lincoln, NE 68509

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## DESIGNATION OF AREA COMMITTEE ON-SCENE COORDINATOR



### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7  
11201 RENNER BOULEVARD  
LENEXA, KS 66219

MAY 08 2015

OFFICE OF  
THE REGIONAL ADMINISTRATOR

### MEMORANDUM

**SUBJECT:** Designation of Area Committee On-Scene Coordinator

**FROM:** Mark Hague, Acting Regional Administrator  
Region 7

A handwritten signature in blue ink, appearing to read "Mark Hague", is written over the printed name and title of the sender.

**TO:** Robert W. Jackson, Acting Director  
Superfund Division

Pursuant to Section 311(j)(4) of the Clean Water Act and Delegation 2-91, I am hereby designating Eric Nold as the On-Scene Coordinator to lead the Area Committee. The National Oil and Hazardous Substances Contingency Plan Section 300.105 (c)(4) states that an OSC lead the Area Committee. In Region 7, the Area Committee is integrated with the Regional Response Team and the Area Plan is integrated with the Regional Contingency Plan to form the Regional Integrated Contingency Plan.

The Chief of the Emergency Response and Removal South Branch will continue to serve as the Region 7 Regional Response Team Co-Chair. The Chief of the Emergency Response and Removal North Branch will continue to serve as the Alternate Co-Chair of the RRT.

**DESIGNATION OF AREA COMMITTEE ON-SCENE COORDINATOR – ADDENDUM**



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 7**

11201 Renner Boulevard  
Lenexa, Kansas 66219

OFFICE OF THE  
REGIONAL ADMINISTRATOR

JUL 25 2019

**MEMORANDUM**

**SUBJECT:** Designation of Area Committee On-Scene Coordinator

**FROM:** James B. Gulliford, Regional Administrator  
Region 7

A handwritten signature in black ink, appearing to read "James B. Gulliford", is written over the printed name of the Regional Administrator.

**TO:** Mary P. Peterson, Director  
Superfund and Emergency Management Division

Pursuant to Section 311(j)(4) of the Clean Water Act and Delegation 2-91, I am hereby designating Eric Nold as the On-Scene Coordinator to lead the Area Committee. The National Oil and Hazardous Substances Contingency Plan Section 300.105(c)(4) states that an OSC lead the Area Committee. In Region 7, the Area Committee is integrated with the Regional Response Team and the Area Plan is integrated with the Regional Contingency Plan to form the Regional Integrated Contingency Plan.

Ken Buchholz, Chief, Assessment, Emergency Response and Removal Branch will continue to serve as the Region 7 Regional Response Team Co-Chair. Dave Williams, Chief, Response Removal and Emergency Preparedness Section will continue to serve as the Alternate Co-Chair of the RRT.

## LETTER OF PROMULGATION – CURRENT



### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 7

11201 Renner Boulevard  
Lenexa, Kansas 66219

NOV 07 2019

### LETTER OF PROMULGATION

In accordance with Section 311(j)(4)(C) of the Federal Water Pollution Control Act (commonly referred to as the "Clean Water Act" and cited herein as "CWA"), 33 U.S.C. § 1321(j)(4)(C), this Regional Integrated Contingency Plan, or RICP — a combined Regional Contingency Plan, or RCP, and Area Contingency Plan, or ACP — fulfills the statutory requirements for an ACP.

The functions of designating areas, appointing Area Committee members, requiring information to be included in the ACP, and reviewing and approving the ACP was delegated by Executive Order 12777, October 18, 1991, as amended, to the Administrator of the U.S. Environmental Protection Agency. Pursuant to a notice published in the Federal Register (57 FR 15198, April 24, 1992), the Administrator designated 13 geographic areas as the initial areas to be covered by ACPs. The area designated as EPA Region 7 (Iowa, Kansas, Missouri and Nebraska) was designated, and the Region 7 Regional Response Team, or RRT, was designated as the initial Area Committee. The Administrator's authority was re-delegated by EPA Delegation 2-91 to the EPA's Regional Administrators. For Region 7, this authority has been re-delegated to the Director of Region 7's Superfund and Emergency Management Division by Regional Delegation R7-2-091.

This RICP has been developed in consultation with all designated federal agencies and state governments. This RICP is updated annually by the Area Committee/RRT, under the direction of the EPA's designated Area Committee On-Scene Coordinator, Eric Nold. This RICP is effective immediately and supersedes any prior RICPs.

Comments and recommendations regarding this RICP are invited and should be addressed by email to Eric Nold, U.S. Environmental Protection Agency, Region 7, 11201 Renner Blvd., Lenexa, Kansas 66219, or by email to [nold.eric@epa.gov](mailto:nold.eric@epa.gov).

A handwritten signature in blue ink, reading "Eric Nold", is written over a horizontal line.

Eric Nold, Area Committee On-Scene Coordinator  
Response, Removal and Emergency Preparedness Section  
Superfund and Emergency Management Division

11/7/19  
Date

A handwritten signature in blue ink, reading "Mary P. Peterson", is written over a horizontal line.

Mary P. Peterson, Director  
Superfund and Emergency Management Division

11/7/2019  
Date

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## CLEAN WATER ACT DELEGATION

Regional Delegations Manual  
R7-2-091

TN 199  
04/01/2019

### CHAPTER 02 CLEAN WATER ACT (CWA)

#### Area Committee Designation and Preparation and Review of Area Contingency Plans

1. **AUTHORITY.** Pursuant to Section 311(j)(4) of the Clean Water Act and Section 4202(b)(1) of the Oil Pollution Act of 1990, the authority to:
  - a. Designate Areas;
  - b. Appoint Area Committee members;
  - c. Require information to be included in Area Contingency Plans; and
  - d. Review and approve such plans as defined in the National Contingency Plan (NCP).
2. **TO WHOM REDELEGATED.** These authorities are redelegated to the Director of the Superfund & Emergency Management Division.
3. **LIMITATIONS.** Pursuant to a notice published in the Federal Register, (*57 Federal Register* [FR] 15198, April 24, 1992), the Administrator has designated 13 initial geographic areas not covered by the Regional Response Teams, and the Regional Response Teams, as the initial Area Committees. Regional Administrators may designate different areas within their Regions and appoint different Area Committee members.
4. **REDELEGATION AUTHORITY.**
  - a. This authority may not be redelegated.
  - b. An official who redelegates an authority retains the right to exercise or withdraw the authority. Redelegated authority may be exercised by any official in the chain of command down to the official to whom it has been specifically redelegated.
5. **ADDITIONAL REFERENCES.** “Designation of Areas and Area Committees Under the Oil Pollution Act of 1990” (57 FR 15198, April 24, 1992).

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## LETTER OF PROMULGATION – ORIGINAL

### Letter of Promulgation

In accordance with the provisions of Section 311(j)(4)(c) of the Federal Water Pollution Control Act (Commonly referred to as the "Clean Water Act" and cited herein as "CWA"), 33 U.S.C. Section 1321(j)(4)(c), this plan fulfills the statutory requirements for the Region VII Area Contingency Plan (ACP). The functions of designating areas, appointing Area Committee members, and reviewing and approving the ACP as part of this Regional Integrated Contingency Plan (RICP) have been delegated by Executive Order 12777, October 22, 1991, to the Administrator of the Environmental Protection Agency (EPA) for the inland zone. This area has been designated as EPA Region VII (Iowa, Kansas, Missouri, and Nebraska) and the Area Committee has been designated as Region VII Regional Response Team (RRT), responsible for reviewing and developing the RICP under the guidance of Jim MacDonald, USEPA Region VII On-Scene Coordinator (OSC).

Comments and recommendations regarding this plan are invited and should be addressed to Jim MacDonald, OSC, U.S. Environmental Protection Agency, Region VII, 726 Minnesota Ave., Kansas City, Kansas 66101. This plan will be kept under review; changes, additional information, or corrections will be promulgated as necessary and will be consecutively numbered.



Regional Administrator  
U.S. Environmental Protection Agency  
Region VII

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## **DISTRIBUTION**

Electronic copies and/or hyperlinks to this Plan with all changes are posted annually to the [Region 7 Regional Response Team \(RRT\) website](#) and are distributed to the following: U.S. Environmental Protection Agency (EPA) Chairman of the National Response Team (NRT) in Washington, D.C. for NRT distribution; each of the member agencies of the Region 7 RRT listed in Appendix D to this Plan; the EPA/Headquarters (HQ) Emergency Planning Branch; the National Response Center (NRC); and the state, tribal, and federal natural resources trustees.

## **REVISIONS/UPDATES**

EPA Region 7 Integrated Contingency Plan (RICP) shall be reviewed and updated annually with a target completion date of January 31st. The plan shall be reviewed by the Regional 7 RRT, members of which makeup the Area Committee (AC), to ensure all information is current. Upon concurrence of state RRT/AC representatives, the Plan will be accepted as final and posted to the [Region 7 RRT website](#) for access by all interested parties.

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## CORRECTIONS AND UPDATES FORM

Corrections, updates, or suggested additions to the Region 7 Regional Integrated Contingency Plan (RICP) should be provided to Eric Nold, Federal On-Scene Coordinator (FOSC), via e-mail at [nold.eric@epa.gov](mailto:nold.eric@epa.gov) (913-551-7488).

Please complete the following information to effect a change in the RICP:

Page # of the plan. \_\_\_\_\_

Section and subsection numbers of the paragraph to be changed: \_\_\_\_\_

Other description: (e.g., third sentence, in second full paragraph on page) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Corrections or suggested changes: \_\_\_\_\_

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\_\_\_\_\_

**Address:**

Eric Nold, FOSC  
Region 7 Regional Integrated Contingency Plan Coordinator  
Emergency Response Program  
U.S. Environmental Protection Agency  
11201 Renner Blvd.  
Lenexa, Kansas 66219

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## RECORD OF CHANGE

The most current copy of this document, including any changed pages, is available through the U.S. Environmental Protection Agency (EPA) at the [Region 7 Regional Response Team \(RRT\) website](#). All changes will occur in conjunction with the United States Coast Guard (USCG), Eighth District, Sector Upper Mississippi River, Sector Ohio Valley, and Sector Lower Mississippi River.

The following is a list of revisions contained in the most recent publication of this plan. Plan revisions made since 2012 are listed in Appendix I.

Change Number	Change Description	Section Found	Change Date
341	Updated hyperlinks to supporting reference materials	Main Plan, appendices, and annexes	January 2024
342	Added brief description of changes under the 2023 National Contingency Plan (NCP) Subpart J final rule	Main Plan, Subpart J	January 2024
343	Updated table of oil spills in Region 7 since 2010	Main Plan, Subpart C, Table I	January 2024
344	Added description of activation/hiring Historic Properties Specialists (HPS) and “informed emergency response decisions” regarding potential impacts to historic properties and cultural resources; and updated list of federal and state trustee contacts	Appendix A.1, Sections 7.1, 7.2 and 7.3	January 2024
345	Updated federally-listed species (threatened, endangered, candidate, and species of concern)	Appendix A.4	January 2024
346	Updated lists of regulated facilities	Appendix B.1-B.5	January 2024
347	Updated list of USCG-classified oil spill removal organizations (OSRO) and contact information	Appendix C.1	January 2024
348	Updated lists of local spill removal contractors	Appendix C.2	January 2024
349	Updated EPA response team phone numbers	Appendix C.3	January 2024
350	Updated State Emergency Response Commission (SERC) contacts	Appendix D.1	January 2024
351	Updated Local Emergency Planning Committee (LEPC) contacts	Appendix D.2	January 2024
352	Updated RRT-7 contacts	Appendix D.3	January 2024
353	Updated Record of Change (complete)	Appendix I	January 2024
354	Clarified considerations for contacting State and Federal Natural Resource Trustees before in-situ burn operations	Annex IV, Section 2.3.3., last bullet	January 2024

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## REGION 7 INTEGRATED CONTINGENCY PLAN

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## **SUBPART A INTRODUCTION**

### **300.1 Purpose and Objectives**

This plan provides for a pattern of coordinated and integrated response by departments and agencies of the Federal Government and state and local governments to protect public health and the environment from damaging effects of pollution. It provides for timely and effective coordination and direction of federal, state, and local response systems, and supports development of capability by the private sector to handle such incidents. This plan provides the organizational structure, procedures, and objectives necessary to prepare for and respond to discharges of oil and release of hazardous substances, pollutants, and contaminants.

This Region 7 Integrated Contingency Plan (RICP) fulfills the requirements of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) for both Regional Contingency Plans (RCP) and Area Contingency Plans (ACP), and includes references to relevant portions of the National Response Framework (NRF), particularly Emergency Support Function (ESF) #10 Oil and Hazardous Materials Response. The RICP implements the NCP and the ESF #10 component of the NRF at the regional level, and is the chief working document of the Regional Response Team (RRT), the Area Committee (AC), and ESF #10. The RRT also has been appointed by the U.S. Environmental Protection Agency (EPA) Region 7 Regional Administrator (RA) to serve as the AC for development of the Region 7 RICP.

### **300.2 Authority and Applicability**

The NCP is required by Section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (42 *United States Code* [U.S.C.] 9605), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) (Public Law [P.L.] 99-499), and by Section 311 of the Clean Water Act (CWA) (33 U.S.C. 1321(d)), as amended by the Oil Pollution Act of 1990 (OPA) (P.L. 101-380). The NCP applies to response actions pursuant to the authorities under CERCLA and Section 311 of the CWA. In Executive Order 12580 (52 FR 2923, January 29, 1987), the President delegated to the EPA responsibility for amendments to the NCP (40 *Code of Federal Regulations* [CFR] Part 300). The ESF #10 components of this plan are required by the Robert T. Stafford Disaster Relief and Emergency Act (P.L. 93-288), as amended.

The NCP (Section 300.210 [b]) calls for establishment of a nationwide system of RCPs based on federal standards. This plan applies to response operations by all federal, state, and local agencies within Region 7, pursuant to the authorities under CERCLA and Section 311 of the CWA, as amended.

This plan follows, to the greatest extent possible, the format of the NCP, and was developed for implementation in conjunction with applicable subarea plans, state emergency response plans, and SARA Title III local emergency plans. Local plans include data regarding vulnerable resources, potential pollution sources, cleanup equipment, environmental features, and other information that will allow Local Incident Commanders, State On-Scene Coordinators (SOSC), and/or Federal On-Scene Coordinators (FOSC) to plan and organize a response to a pollution incident.

### ***Plan Integration***

The RICP and subarea plans, discussed later in this document, further detail requirements set forth in the NCP, augment federal coordination with state and local authorities, and facilitate integration of existing state, local, and private-sector plans for the four-state area. Coordination between EPA and USCG is ensured because representatives of both EPA and USCG serve as co-chairs of the RRT, and the RRT aids in Area planning and coordination for Region 7. This integration is further strengthened through state involvement in both RICP and subarea planning. All federal contingency plans should be coordinated and integrated with local emergency response plans developed by Local Emergency Planning Committees (LEPC). Region 5 and Region 7 RRTs have agreed to coordinate with the Upper Mississippi River (UMR) Hazardous Spills Coordination Group to assist joint planning and response among the regions along the UMR south to Cairo, Illinois (River Mile Marker 0).

Facility Response Plans (FRP), as defined by Section 311 (j)(5)(A) of the CWA, 33 U.S.C. § 1321 (j)(5)(A), shall be reviewed for approval and consistency with this RICP. During a response, the FOSC, SOSC, Local Incident Commander, and responsible party shall meet to coordinate and integrate this RICP with all other relevant plans including, but not limited to, federal, state, local, tribal, and private plans. The RRT/AC will continuously review

effectiveness and integration of all plans based on actual response experiences, exercises, and all other relevant information that will lead to enhancement of these plans.

### **300.3 Scope**

#### ***Applicability***

This RICP applies to and is in effect for the following cases:

- Discharges of oil into or upon the navigable waters of the United States and adjoining shorelines, or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States; and
- Releases into the environment of hazardous substances, and pollutants or contaminants which may present an imminent and substantial danger to public health or welfare.

#### ***Geographic Description and Jurisdictional Guidance***

The geographic scope of this RICP is EPA Region 7, which encompasses the States of Iowa, Kansas, Missouri, and Nebraska. Detailed descriptions of areas of special environmental and economic concern are in [Appendix A.2](#) and [Appendix A.3](#), Environmentally and Economically Sensitive Areas. Generally, the responsibility to provide FOSCs for incidents or potential incidents is placed upon the EPA and the United States Coast Guard (USCG). Other federal agency (e.g., Department of Defense [DoD], Department of Energy [DOE]) responsibilities are outlined in 40 CFR § 300.175. Figure 1 on page 8 shows the EPA regional boundaries for Region 7. The NCP applies to and is in effect when the NRF and some or all of its ESFs are activated. Per P.L. 93-288 (as amended) and the NRF, EPA serves as ESF #10 Coordinator in EPA Region 7; however, EPA and USCG may both serve as primary agency.

USCG, Eighth District (USCG D8) will assist the predesignated EPA FOSC where a discharge or release of oil or hazardous substances has occurred, or a threat of such a discharge or release into or on navigable waters is evident. Per existing memorandum of agreement (MOA) between EPA R7 and USCG D8 (see [Annex I](#)), the applicable USCG Captain of the Port (COPT) has been designated as the FOSC for pollution incidents originating from a commercial vessel, or from the USCG-regulated portion of a USCG-regulated facility.

The EPA Region 7 office may request that a USCG COTP provide the FOSC for a release/discharge in the inland zone, regardless of source, based on the particular circumstances of the incident.

### **300.4 Abbreviations**

#### ***Federal Department and Agency Title Abbreviations***

DHS – Department of Homeland Security  
CISA – Cybersecurity and Infrastructure Security Agency  
FEMA – Federal Emergency Management Agency  
USCG – United States Coast Guard  
COTP – Captain of the Port  
DOC – Department of Commerce  
NOAA – National Oceanic and Atmospheric Administration  
DoD – Department of Defense  
USACE – U.S. Army Corps of Engineers  
DOE – Department of Energy  
DOI – Department of the Interior  
USFWS – United States Fish and Wildlife Service  
OLE – Office of Law Enforcement  
NPS – National Park Service  
BIA – Bureau of Indian Affairs  
USGS – United States Geological Survey  
BLM – Bureau of Land Management  
USBR – United States Bureau of Reclamation  
DOJ – Department of Justice  
DOL – Department of Labor  
OSHA – Occupational Safety and Health Administration  
DOS – Department of State  
DOT – Department of Transportation  
PHMSA – Pipeline and Hazardous Materials Safety Administration  
EPA – Environmental Protection Agency  
CMAD – Consequence Management Advisory Division  
EERU – Environmental Emergency Response Unit  
ERT – Environmental Response Team  
RERT – Radiological Emergency Response Team  
GSA – General Services Administration  
HHS – Department of Health and Human Services



ATSDR – Agency for Toxic Substances and Disease Registry  
USDA – United States Department of Agriculture  
APHIS – Animal and Plant Health Inspection Service  
USFS – United States Forest Service

(Note: To avoid confusion, the NCP and this RICP spell out Nuclear Regulatory Commission and use the abbreviation “NRC” only with respect to the National Response Center.)

***State Abbreviations***

IDNR – Iowa Department of Natural Resources  
KDHE – Kansas Department of Health and Environment  
MoDNR – Missouri Department of Natural Resources  
NDEE – Nebraska Department of Environment and Energy

***Other Abbreviations***

AC – Area Committee  
ACC – American Chemistry Council  
ACP – Area Contingency Plan  
API – American Petroleum Institute  
BOA – Basic Ordering Agreement  
CAER – Community Awareness and Emergency Response  
CANAPS – Ceiling and Number Assignment Processing System  
CBC – Chemical and Bioremediation Countermeasures  
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act  
CFR – *Code of Federal Regulations*  
CG-IMAT – USCG Incident Management Assistance Team  
CHEMTREC – Chemical Transportation Emergency Center  
CMAD – Consequence Management Advisory Division (EPA)  
COVID-19 – Coronavirus Disease 2019  
CPN – CERCLA Project Number  
CWA – Clean Water Act (Federal Water Pollution Control Act)  
EE/CA – Engineering Evaluation/Cost Analysis  
EPCRA – Emergency Planning and Community Right-To-Know Act (SARA Title III)  
ERRS – Emergency Response & Removal Services  
ESA – Endangered Species Act

ESF – Emergency Support Function  
FCO – Federal Coordinating Officer  
FLAT – Federal Lead Administrative Trustee  
FOSC – Federal On-Scene Coordinator  
FPN – Federal Project Number  
FRP – Facility Response Plan  
FWPCA – Federal Water Pollution Control Act  
FWSEP – Fish and Wildlife Sensitive Environments Plan  
gal – Gallons  
GIS – Geographic Information System  
GIUE – Government Initiated Unannounced Exercise  
HAZMAT – Hazardous Materials  
HSPD – Homeland Security Presidential Directive  
IAG – Interagency Agreement  
ICS – Incident Command System  
ISRRT – Incident-Specific Regional Response Team  
IMAT – Incident Management Assistance Team  
KSU – Kansas State University  
LEPC – Local Emergency Planning Committee  
MOA – Memorandum of Agreement  
MOU – Memorandum of Understanding  
MSA – Metropolitan Statistical Area  
NIMS – National Incident Management System  
NCP – National Oil and Hazardous Substances Pollution Contingency Plan  
NFPA – National Fire Protection Association  
NPFC – National Pollution Funds Center (USCG)  
NRC – National Response Center (NRT component collocated with USCG headquarters)  
NRDA – Natural Resource Damage Assessment  
NRF – National Response Framework  
NRT – National Response Team  
NSF – National Strike Force (USCG)  
NSFCC – National Strike Force Coordination Center (USCG)  
OPA – Oil Pollution Act  
OSLTF – Oil Spill Liability Trust Fund

PIAT – Public Information Assist Team (USCG)  
P.L. – Public Law  
POLREP – Pollution Report in Message Format  
PREP – National Preparedness for Response Exercise Program  
PRFA – Pollution Removal Funding Authorization  
PRP – Potentially Responsible Party  
RA – Regional Administrator  
RCP – Regional Contingency Plan  
RCRA – Resource Conservation and Recovery Act  
REOC – Regional Emergency Operations Center  
RICP – Regional Integrated Contingency Plan  
RMP – Risk Management Plan  
RP – Responsible Party  
RPM – Remedial Project Manager  
RRI – Response Resource Inventory (USCG)  
RRT – Regional Response Team  
RSE – Removal Site Evaluation  
RTOC – Regional Tribal Operations Committee  
SACP – Subarea Contingency Plan  
SARA – Superfund Amendments and Reauthorization Act of 1986  
SERC – State Emergency Response Commission  
SHPO – State Historic Preservation Office/Officer  
SMOA – Superfund MOA  
SONS – Spill of National Significance  
SOSC – State On-Scene Coordinator  
SOW – Statement of Work  
SPCC – Spill Prevention, Control, and Countermeasures  
SSC – Scientific Support Coordinator  
START – Superfund Technical Assessment and Response Team  
SUPSALV – Supervisor of Salvage (U.S. Navy)  
THPO – Tribal Historic Preservation Office/Officer  
UC – Unified Command  
U.S.C. – *United States Code*  
WCD – Worst Case Discharge

### **300.5 Definitions**

Terms used herein are defined in [Section 300.5 of the NCP](#), 40 CFR § 300.5, (“Definitions”); [Section 311 \(a\) of the CWA](#), 33 U.S.C. § 1321 (a) and [OPA 90](#) (“Definitions”), 33 U.S.C. § 2701, P.L. 93-288; the [Robert T. Stafford Disaster Relief and Emergency Assistance Act](#); and the regulations promulgated thereunder.

#### ***Plan Maintenance***

Section 311 (j)(4)(C)(ix) of CWA requires periodic updates to the RICP. The RICP and related Subparts were developed with input from the Region 7 RRT/AC. This section establishes procedures for interim changes and full updates to the RICP.

The RRT is responsible for maintenance of the RICP as needed to incorporate federal, state, regional, and local policy and procedural changes based on lessons learned from exercises and actual incidents. Changes include additions of new or supplementary material and deletions. Proposed changes should occur in consultation with RRT stakeholders to ensure no conflicts with plans or authorities that may affect the RICP.

The RRT is responsible for coordinating review and acceptance of proposed changes. Completion of annual plan maintenance is intended to occur by January 31st of each year with major plan updates occurring every 5 years. The plan shall be reviewed by the AC/RRT to ensure all information is current, and then shall be submitted to all interested parties. Each RRT stakeholder will have opportunity to review the RICP and recommend changes to the RRT. Comments and recommendations regarding this plan are invited and should be addressed to Eric Nold, FOOSC, U.S. Environmental Protection Agency, Region 7, 11201 Renner Blvd., Lenexa, Kansas 66219. Major plan updates will be approved and signed by the RRT Co-Chairs before posting to the RRT’s website.

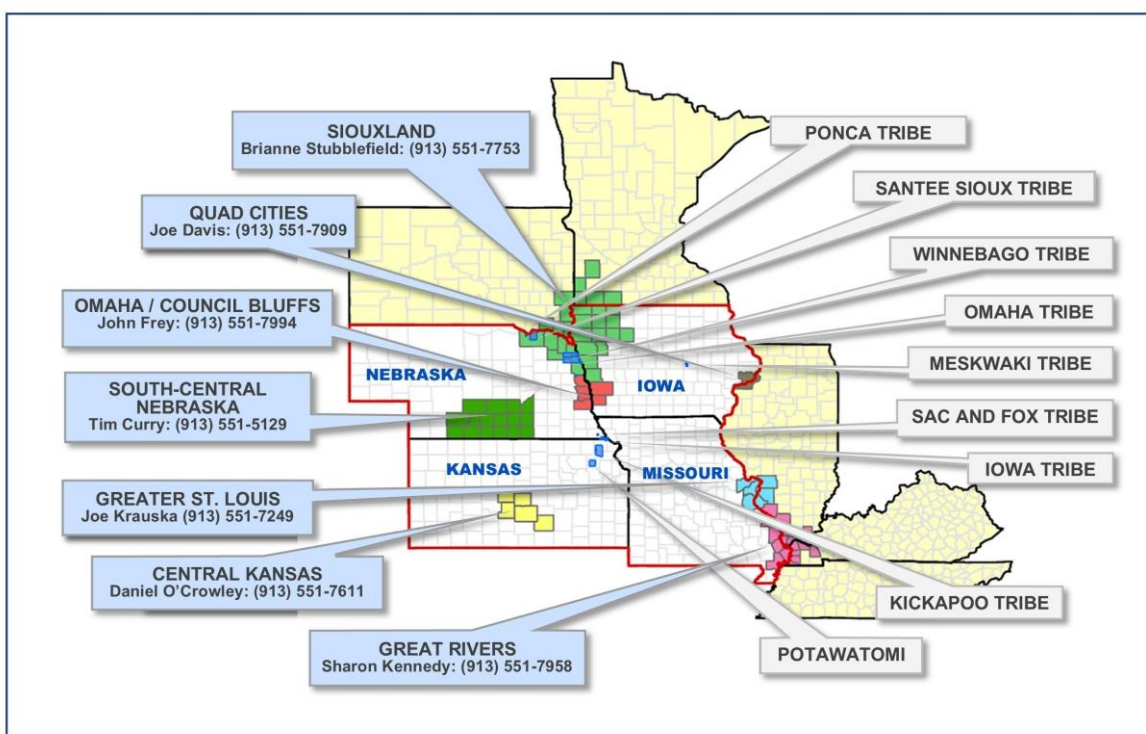
This plan will be kept under review, and changes, additional information, or corrections will be promulgated as necessary and will be consecutively numbered. Once published, changes will be considered part of the RICP for operational purposes pending a formal revision and re-issuance of the entire document. Any changes that result from reviews will be circulated to all affected jurisdictions and agencies.

## SUBPART B RESPONSIBILITY AND ORGANIZATION FOR RESPONSE

### 300.100 Duties of President Delegated to Federal Agencies

In [Executive Orders 12580](#) and [12777](#) (as amended by [Executive Order 13638](#)), the President delegated certain functions and responsibilities vested in him by the CWA, CERCLA, and OPA to the Administrator of the EPA for the inland zone and the commandant of the USCG through the secretary of the department in which the USCG is operating for the coastal zone. These functions and responsibilities include designating Areas, appointing AC members, determining information to be included in ACPs, and reviewing and approving ACPs. EPA has assigned FOSCs throughout the Region 7 inland zone and subareas to carry out these functions and responsibilities in accordance with the [EPA/USCG MOA](#) for predetermined FOSC designation. Figure 1 below lists EPA FOSCs assigned to Region 7 subareas.

**FIGURE 1 - EPA FOSC SUBAREA ASSIGNMENTS**



### 300.105 General Organization Concepts

A listing of federal agencies, responsibilities, functions, and resources appears in 300.170 and 300.175. Federal agencies should plan for emergencies and develop procedures for dealing with oil discharges and releases of hazardous substances, pollutants, or contaminants. Agencies

should coordinate their planning, preparedness, and response activities with one another, and with affected states, tribes, local governments, and private entities.

Three fundamental activities that shall be performed pursuant to the NCP are as follows:

1. Preparedness, planning, and coordination for response to a discharge of oil or release of hazardous substance, pollutant, or contaminant.
2. Notification and communications.
3. Response operations at the scene of a discharge or release.

### ***National Incident Management System***

The National Incident Management System (NIMS) is a system mandated by Homeland Security Presidential Directive 5 (HSPD 5), which provides a consistent, nationwide approach for the Federal Government and state, local, and tribal governments; the private sector; and nongovernmental organizations to work effectively and efficiently together to prepare for, respond to, and recover from domestic incidents, regardless of cause, size, or complexity. NIMS is implemented by responding organizations within Region 7 to provide for interoperability and compatibility among federal, state, local, and tribal capabilities. NIMS includes a core set of concepts, principles, and terms. HSPD-5 identifies these as the Incident Command System (ICS); multiagency coordination systems; training; identification and management of resources (including systems for classifying types of resources); qualification and certification; and collection, tracking, and reporting of incident information and incident resources.

### ***Incident Command System and Unified Command***

Implementation of an ICS is required under 29 CFR § 1910.120 and 40 CFR § 311, as well as NIMS. ICS shall be established at all incidents involving hazardous substances and oil by the senior on-scene official of the first response organization to arrive at an incident. When the incident involves or affects multiple jurisdictions or agencies, Unified Command (UC) should be implemented. Procedures for implementation of an ICS and UC are in Annex III. A list of EPA's modified ICS forms can be downloaded from [response.epa.gov/ics\\_forms](https://response.epa.gov/ics_forms).

### **300.110 National Response Team**

National planning and coordination are accomplished through the National Response Team (NRT). The NRT consists of representatives from USCG, EPA, Federal Emergency Management Agency (FEMA), DoD, DOE, U.S. Department of Agriculture (USDA), Department of Commerce (DOC), Department of Health and Human Services (HHS), Department of the Interior (DOI), Department of Justice (DOJ), Department of Labor (DOL), Department of Transportation (DOT), Department of State (DOS), General Services Administration (GSA), and Nuclear Regulatory Commission.

### **300.115 Regional Response Team**

The RRT is responsible for regional planning and preparedness activities before response actions, and for providing advice and support to the FOSC or Remedial Project Manager (RPM) when activated during a response. Region 7 RRT membership consists of a designated representative from each federal agency represented on the NRT, and representatives from each of the four states: Iowa, Kansas, Missouri, and Nebraska. These Region 7 RRT members also comprise the AC and are tasked with development and maintenance of this RICP.

The two principal components of the RRT mechanism are (1) a standing team, which consists of designated representatives from each participating federal agency and state government; and (2) incident-specific teams formed from the standing team when the RRT is activated for a response.

#### ***Standing Regional Response Team***

The standing RRT serves as the regional body for planning and preparedness actions before a response action occurs. Except for periods of activation for an incident-specific response action, EPA and USCG representatives shall act as co-chairs. A list of RRT representatives is in [Appendix D.3](#).

The standing RRT should:

- Continuously review regional and local responses to discharges or releases, consider available legal remedies, ensure equipment readiness, and coordinate among responsible public agencies and private organizations.
- Recommend to the NRT revisions to the NCP based on observations of response operations.
- Consider and recommend necessary changes to the RCP and ACP based on continuing review of response actions in the region.
- Be prepared to provide response resources to major discharges or releases outside the region.
- Meet at least semiannually to review response actions carried out during the preceding period, and consider changes in federal regional, area, and local contingency plans.
- Provide reports on RRT activities to the NRT annually as prescribed by the NRT. Reports will summarize recent activities, organizational changes, operational concerns, and efforts to improve state and local preparedness.
- At the request of LEPCs, review and comment on local emergency response plans or other issues related to preparation, implementation, or exercise of LEPCs.
- Encourage states, tribes, and local response communities to improve their preparedness for response. Conduct or participate in training and exercises to encourage preparedness activities of the response community in the region.
- Conduct advance planning for use of dispersants, surface washing agents, surface collection agents, burning agents, bioremediation agents, or other chemical agents in accordance with Subpart J of the NCP and in its capacity as the AC.
- Conduct or participate in training and exercises as necessary to encourage preparedness activities of the response community within the region.
- Work to maximize participation in the national program for announced and unannounced exercises.

Area planning and coordination of preparedness and response actions are accomplished through the AC. The RA has appointed the RRT as the AC for Region 7. In Region 7, each of the seven designated subareas has an assigned EPA FOSC (see Figure 1).

### ***Incident-Specific Regional Response Team (ISRRT)***

Incident-specific RRTs will be activated as necessary for response operations tailored to the geographic location and nature of the incident. The RRT will be activated during any discharge



or release upon a request to the RRT Co-Chair from the FOSC or RPM, or from any RRT representative to the RRT Co-Chairs. An RRT Co-Chair may activate the incident-specific RRT when a discharge or release:

- Exceeds the response capabilities available to the FOSC at the incident location;
- Transects state or regional boundaries;
- Poses a substantial threat to public health, welfare, the environment, or significant amounts of property.

EPA or USCG will also activate incident-specific RRTs for releases/discharges from DoD vessels or DoD/DOE facilities at the specific request of the DoD or DOE agency involved. Local requests for RRT activation must proceed through the affected state's RRT member. Verbal requests for RRT activation will later be confirmed in writing.

The role of the incident-specific team is determined by the operational requirements of the response to a specific discharge or release. Participation is relative to the technical nature and geographic location of the discharge or release. When the RRT is activated for response action, the RRT Chair will be a representative of the agency providing the FOSC for the response operation. The RRT Chair coordinates with the RRT membership and the FOSC for the incident to determine the appropriate level of RRT member activation. Member agencies and states participating with the RRT should take care to ensure that designated representatives or alternates can function as resource personnel for the FOSC during incident-specific events.

When activated, RRT members may be requested to:

- Provide advice and recommend courses of action for consideration by the FOSC.
- Advise the FOSC on the duration and extent of federal response, and recommend to the FOSC specific actions to respond to a discharge or release.
- Request other Federal, state, or local government, or private agencies to provide resources under their existing authorities to respond to a discharge or release or to monitor response operations.
- Monitor and evaluate reports from the FOSC.
- If circumstances warrant, recommend designation of a different FOSC to the RRT Chair.

- Ensure continual communications, as indicated in 300.125 – Notification and Communications.

Activation for assembly may be either by telephone or physical co-location. Partial activation may also occur where the RRT Chair deems it appropriate.

- **Partial Activation.** Notice to selected RRT members that their services are required in response to a pollution incident. The activation notice will specify services requested and required. Although services of only selected members are requested, partial activation will be documented electronically via an ISRRT summary, or pollution report (POLREP) that will be distributed to all RRT members. The initial activation notice may be provided by telephone and will be confirmed in writing via email or electronic calendar invite.
- **Full Activation.** Notice to all RRT members (except non-affected state representatives) that their services are requested in response to a pollution incident. The activation notice will specify services requested from each RRT member. The initial activation notice may be provided by telephone and will be confirmed in writing via email or electronic calendar invitation.

Assembly of the RRT will occur at a time and location specified by the Chair. The Chair can deactivate the RRT when the Chair determines that the FOSC no longer requires RRT assistance. Time of deactivation will be included in an ISRRT summary or POLREP.

### **300.120 Federal On-Scene Coordinators – General Responsibilities**

The FOSC directs response efforts and coordinates all other efforts at the scene of a discharge or release in accordance with the NRF, NCP, RICP, state plans, and local plans. As part of planning and preparedness for response, FOSCs shall be predesignated by the EPA Region 7 RA (see EPA FOSC listing in [Appendix D.3, Section 18.0](#)) or USCG D8, per EPA/USCG MOA for predetermined FOSC designation. DoD and DOE shall designate an FOSC as stated in NCP Part 300.120 paragraphs (c) and (d). Other federal agencies are responsible for non-emergency removals, as stated in NCP Part 300.120 (c)(2).

The FOSC is responsible for overseeing development of the ACP in the area of the FOSC's responsibility. Within Region 7, EPA provides the predesignated FOSC and is lead federal agency for pollution planning, preparedness, and response. This RICP fulfills NCP requirements for both an ACP and RCP, and shall be implemented, as appropriate, in cooperation with the

RRT/AC and designated state, tribal, and local representatives. In contingency planning and response incidents, the FOSC coordinates, directs, and reviews work of other agencies, RRT/AC, states, responsible parties, and contractors to assure compliance with the NCP and RICP, decision document, consent decree, administrative order, and lead agency-approved plans applicable to the response.

The FOSC should ensure that any person designated to act as an on-scene representative is adequately trained and prepared to carry out actions under the NCP, RICP, and applicable Subarea Contingency Plan (SACP) to the extent practicable. FOSC responsibilities are further described in Section 300.135 of this RICP.

### **300.125 Notification and Communications**

The NRC is the national communications center for handling activities related to response actions. The NRC acts as the single point of contact for all pollution incident reporting. Notice of an oil discharge or release of a hazardous substance in an amount equal to or greater than the reportable quantity must occur immediately in accordance with the CWA and CERCLA under 33 CFR Part 153, Subpart B, and 40 CFR Part 302, respectively. Notification shall be made to the NRC Duty Officer, HQ USCG, Washington, D.C.—telephone (800) 424-8802 or (202) 267-2675. All notices of discharges or releases received at the NRC will be relayed immediately by telephone to the appropriate predesignated FOSC. In addition, facilities may be required to report releases/discharges of specified hazardous substances to the State Emergency Response Commission (SERC) and the LEPC under Section 304 of the Emergency Planning and Community Right-To-Know Act (EPCRA), 42 U.S.C. § 11004. Information pertaining to contacts with Region 7 SERCs and LEPCs is in [Appendix D.1](#) and [Appendix D.2](#), respectively.

The appropriate state and federal natural resource trustees will be notified in the event of any discharge or release affecting or threatening to affect environmentally sensitive areas, migratory waterfowl, or state-listed or federally listed threatened or endangered species. Responsibility for notification will rest with the respective OSCs. SOSC will notify affected and potentially affected trustees during state-led responses, and FOSC will notify affected and potentially affected trustees during federally led responses. SOSC and FOSC should coordinate notifications during joint response efforts affecting state and federal resources.

EPA maintains responsibility to notify tribal governments of any discharge or release affecting or threatening to affect tribal land. Appendix D.5 to this RICP describes Region 7 protocols for maintaining emergency response contacts for federally recognized tribes headquartered in or owning significant property within the region. Processes have been established by EPA Region 7 to review emergency contacts lists at quarterly meetings of the Regional Tribal Operations Committee (RTOC) and forward changes to appropriate EPA personnel.

The Regional Emergency Operations Center (REOC) is the regional site for notification, communication, and interagency coordination during a pollution incident. The REOC or Command Center will be located at USCG D8 when an incident occurs within its jurisdiction, or at the EPA Regional Office when an incident occurs in any other area of Region 7, in accordance with the EPA/USCG MOA in [Annex I](#) to this RICP.

Cooperating with the predesignated FOSC, the EPA REOC will coordinate communication, information, limited supplies and equipment, and other personnel and facilities necessary to allow proper function and administration of this plan during a response to an oil discharge or a hazardous substance release. The affected state and tribe, if appropriate, as well as trustees for natural resources, will be notified of all reported spills. The FOSC will coordinate with affected state, tribes, and water programs to verify that water intake managers are appropriately notified.

### **300.130 Determinations to Initiate Response and Special Conditions**

The President shall, in accordance with the NCP and any appropriate ACP (in Region 7, this RICP), ensure effective and immediate removal of a discharge, and mitigation or prevention of a substantial threat of a discharge of oil or release of hazardous substance [33 U.S.C. § 1321 (c)]. In carrying out this mandate, the President may direct or monitor all federal, state, and private actions to remove a discharge. The NCP authorizes EPA or USCG to act for the United States to take response measures deemed necessary to protect public health or welfare or the environment from discharges of oil or releases of hazardous substances, pollutants, or contaminants, except with respect to such releases on or from vessels or facilities under the jurisdiction, custody, or control of other federal agencies (40 CFR § 300.130). The assigned FOSC may initiate a response.

If the situation is beyond the capability of state and local governments, and beyond the statutory authority of federal agencies, the President may act upon a request by a governor to declare a major disaster or emergency and appoint a Federal Coordinating Officer (FCO) to coordinate all federal disaster assistance activities. By law and by Presidential directive, the Secretary of Homeland Security is the FCO responsible for coordination of all domestic incidents requiring multiagency federal response. The Secretary may elect to designate a single individual to serve as his or her primary representative to ensure consistency of federal support, as well as overall effectiveness of federal incident management. When appointed, such an individual serves in the field as the FCO for the incident. The FCO deploys with a small, highly trained, mobile support staff.

The FCO does not direct or replace the incident command structure established at the incident. Nor does the FCO have directive authority over a Senior Federal Law Enforcement Official, a DoD Joint Task Force Commander, or any other federal or state official. Other federal incident management officials retain their authorities as defined in existing statutes and directives.

For Stafford Act incidents (i.e., emergencies or major disasters), upon recommendation of the FEMA Administrator and the Secretary of Homeland Security, the President appoints an FCO. The FCO executes Stafford Act authorities, including commitment of FEMA resources and mission assignments of other federal departments or agencies. If a major disaster or emergency declaration covers a geographic area that spans all or parts of more than one state, the President may decide to appoint a single FCO for the entire incident, with other individuals as needed serving as Deputy FCOs. In all cases, the FCO represents the FEMA Administrator in the field to discharge all FEMA responsibilities for the response and recovery efforts underway. For Stafford Act events, the FCO is the primary federal representative with whom the State Coordinating Officer and other state, tribal, and local response officials interface to determine the most urgent needs and set objectives for an effective response in collaboration with the Unified Coordination Group.

### **300.135 Response Operations**

To the extent practicable, response operations shall be consistent with federal, state, and local plans, including this RICP, applicable SACPs, and FRPs. The NRC is the national

communications center for activities related to pollution response actions. It is at USCG Headquarters in Washington, D.C. The NRC receives and disseminates FOSC and RRT reports to the NRT when appropriate, and when required, provides facilities for the NRT to use for coordination of a national response action. The NRC also maintains tele-conferencing capability, as well as a technical library on oil and hazardous substances, and can evaluate chemical discharge hazards.

As stated in Section 300.125 of this RICP, the EPA Region 7 REOC, at 11201 Renner Blvd., Lenexa, Kansas, will provide a predesignated FOSC, and will coordinate communication, information, limited supplies and equipment, and other personnel and facilities necessary to allow proper functioning and administration of this plan. The state, as well as trustees for natural resources, will be promptly notified of reported discharges or releases.

EPA Region 7 and USCG D8 COTPs are responsible for responding to discharges/releases, and EPA will provide predesignated FOSCs to all pollution response activities in the inland zone. However, DoD and DOE shall designate FOSCs for discharges/releases of hazardous substances, pollutants, or contaminants from DOE and DoD facilities and vessels. EPA will provide FOSCs for all CWA discharges and non-DoD CERCLA releases unless otherwise agreed. In certain instances, USCG will act as the lead agency for actual or threatened pollution incidents originating from a commercial vessel or from the USCG portion of a USCG-regulated, marine transportation-related facility, in accordance with the EPA/USCG MOA in [Annex I](#).

### ***Federal On-Scene Coordinators – Specific Responsibilities***

The FOSC, consistent with [NCP Parts 300.120 and 300.125](#), shall direct response efforts and coordinate all other efforts at the scene of a discharge or release. As part of planning and preparations for response, FOSCs are predesignated by the regional or district head of the lead agency.

The FOSC shall, to the extent practicable, collect pertinent facts about the discharge or release, such as its source and cause, and identify the following: potentially responsible parties; nature, amount, and location of discharged or released materials; probable direction and time of travel of the discharged or released materials; pathways to human and environmental exposure; potential

impact on human health, welfare, and safety, and the environment; potential impact on natural resources and property that may be affected; priorities for protecting human health and welfare and the environment; and appropriate cost documentation.

Efforts of the FOSC shall be coordinated with other appropriate federal, state, local, and private response entities. FOSCs may designate capable persons from federal, state, or local agencies to act as their on-scene representatives. State and local governments, however, are not authorized to take actions under Subparts D and E of the NCP that involve expenditures of CWA Section 311 (k) or CERCLA funds unless an appropriate contract or cooperative agreement has been established.

Coordination activities include notification to other EPA Regions and USCG D8 via their respective 24-hour emergency operations centers when an incident is expected to affect other regions defined in Section 300.140. The downstream region should make whatever additional notifications it deems necessary. This includes contacting regional management and/or elected officials.

The FOSC should consult regularly with the RRT in carrying out the NCP and this RICP, and keep the RRT informed of activities under the NCP and this RICP. The FOSC shall advise the lead support agency as promptly as possible of reported releases/discharges.

During a response under the NRF, the FOSC should evaluate incoming information and immediately inform the FCO or the appropriate representative of potential disaster situations or other significant developments involving hazardous materials (HAZMAT) that may require commitment of FEMA resources and/or mission assignments of other federal departments or agencies.

The FOSC is responsible for addressing worker health and safety concerns at a response scene in accordance with the NCP. In instances of possible public health emergency, the FOSC should notify the HHS representative to the RRT. Throughout response actions, the FOSC may call upon the HHS representative for assistance in determining public health threats, and call upon the Occupational Safety and Health Administration (OSHA) and HHS for advice on worker health and safety concerns.

The FOSC/SOSC shall promptly notify the appropriate trustees for natural resources of discharges or releases that are injuring or may injure natural resources under their jurisdiction. The FOSC shall consult with and coordinate all response activities with the natural resource trustees and natural resource managers.

When the FOSC becomes aware that a discharge or release may affect any endangered or threatened species, or result in destruction or adverse modification of the habitat of such species, the FOSC must consult with the U.S. Fish and Wildlife Service (USFWS) (see Section 40 CFR § 300.305 [3]), review the Fish and Wildlife Sensitive Environments Plan (FWSEP) ([Appendix A.1](#)), and the Endangered Species Act (ESA) MOA ([Annex V](#)).

When the FOSC becomes aware that a discharge or release may affect any historic properties, the FOSC should consult with the State Historic Preservation Office ([SHPO](#)), Tribal Historic Preservation Office ([THPO](#)), or other state and federal historic management agencies, as set forth in the Programmatic Agreement on Protection of Historic Properties During Emergency Response under the NCP (Programmatic Agreement, [Annex VI](#)).

### ***Incident Response – Federal Facilities***

All federal agencies should plan for emergencies and develop procedures for dealing with oil discharges and releases of hazardous substances, pollutants, or contaminants from vessels and facilities under their jurisdiction. All federal agencies, therefore, are responsible for designating the office that coordinates response to such incidents in accordance with the NCP and other applicable federal regulations and guidelines.

For releases of hazardous substances, pollutants, or contaminants that are on, or the sole source of the release is from, any facility or vessel under the jurisdiction, custody, or control of DoD or DOE, DoD or DOE shall provide FOSCs/RPMs for taking all response actions. In cases of jurisdiction, custody, or control by federal agencies other than EPA, DoD, or DOE, such agencies shall provide FOSCs for all removal actions that are not emergencies. If DoD (including the Department of the Army) or DOE provides the FOSC for removal operations in response to an off-post/off-site or potential off-post/off-site release, the FOSC may request the EPA Co-chair to provide support by facilitating FOSC/RRT coordination and communication.



Decisions regarding support by RRT agencies would, however, be made as usual by the FOSC. DoD will be the removal response authority with respect to incidents involving DoD military weapons and munitions, or weapons and munitions under the jurisdiction, custody, or control of DoD.

EPA FOSCs may be requested to provide technical assistance to the lead agency FOSC responding to a release or threatened release. In the event of a “classic emergency” on federal agency property other than a DoD or DOE property, EPA retains response authority, and EPA FOSCs may respond and later initiate cost recovery actions against the potentially responsible party (PRP).

“Lead agency” means the agency that provides the FOSC/RPM to plan and implement response action under the NCP. The lead agency for a response action may be EPA, USCG, another federal agency, or a state (or political subdivision of a state) operating pursuant to a contract or cooperative agreement executed pursuant to Section 104 (d)(1) of CERCLA, or designated pursuant to a Superfund Memorandum of Agreement (SMOA) entered into pursuant to Subpart F of the NCP or other agreements.

Under the Nuclear/Radiological Incident Annex to the NRF, regarding off-site radiological releases from federal facilities, DOE coordinates federal radiation monitoring activities during the emergency phase (first few days). Then EPA assumes this responsibility from DOE during the intermediate and long-term phase of assessment and monitoring (week to months). This hand-off will be negotiated between the two agencies. If the incident is severe, the long-term phase could extend beyond 1 year. EPA response will involve emergency-response-trained individuals from facilities in Las Vegas, Nevada, and Montgomery, Alabama.

If CERCLA authority is invoked, the response action will proceed in accordance with the NCP and will be limited to cleanup of certain releases of radionuclides, including at sites of man-made radiation.

### ***Responsible Party Policy***

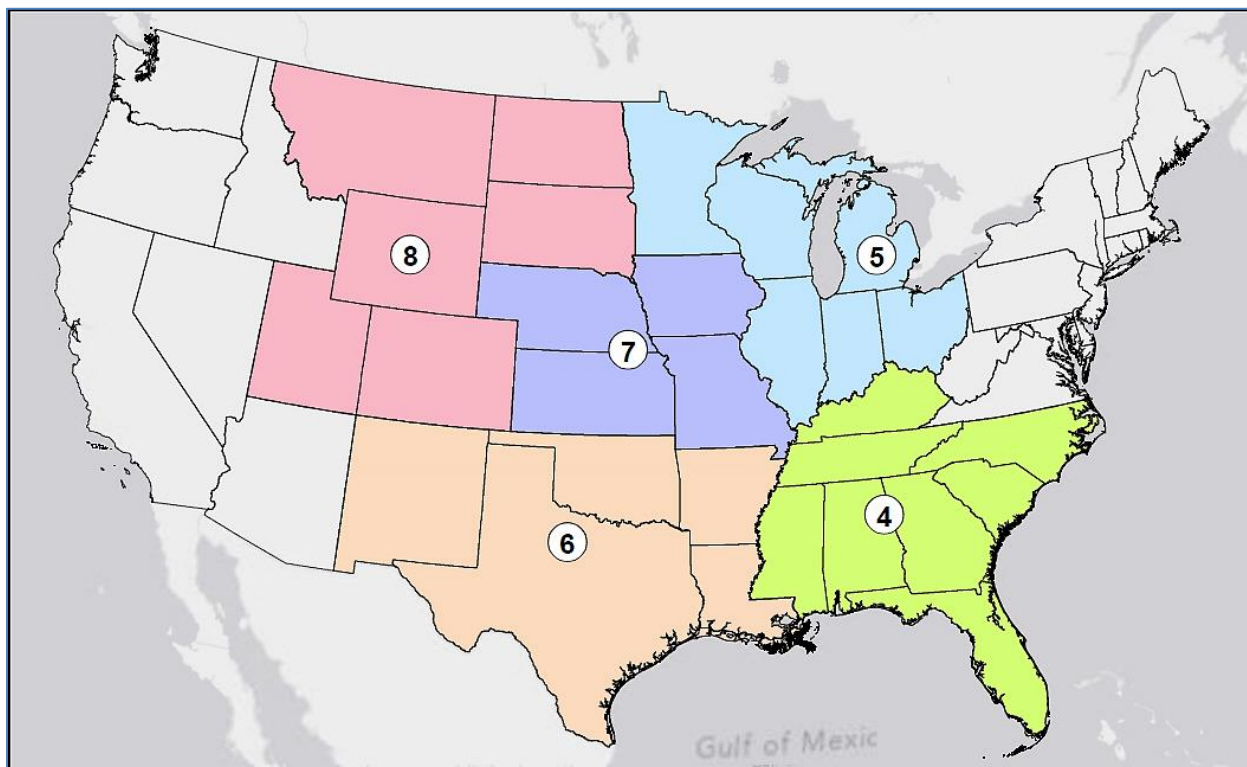
Obligations of the Responsible Party (RP) to notify the NRC when a spill exceeds the reportable quantity for a hazardous substance is established by statute. The NRC's responsibility to notify EPA and other agencies of spills is similarly delineated in federal statutes. Beyond these initial notifications, however, it is recognized that notifications evolve independently for each incident. Decisions on notification will depend on volume of material released, perceived threat to human health or the environment posed by the release, capability of an agency to handle the situation, and personal preferences and historical working relationships. Initial notifications might originate with an RP, but these also come from the public or via the news media.

Responsibilities regarding cleanup of a discharge/release and response preparedness of the RP are outlined in [Subpart H](#) of this RICP.

### **300.140 Multi-Area Responses**

During a multi-regional response, oil discharges or releases of hazardous substances that occur within Region 7 may originate in or affect EPA Region 4 (Kentucky, Tennessee), EPA Region 5 (Minnesota, Wisconsin, Illinois), EPA Region 6 (Arkansas, Oklahoma), EPA Region 8 (Colorado, Wyoming, South Dakota), or USCG D8. The lead region or district responsibility will normally depend on the location of the origin of the discharge or release. Region 7 will implement this RICP to coordinate response efforts when response to oil discharges or releases of hazardous substances is led by stakeholders listed in this plan. If a response originates outside Region 7 but impacts the Region 7 area, Region 7 will defer to the response lead. Localized response plans are covered in Subpart C. Figure 2 on the following page depicts EPA Regions bordering Region 7.

**FIGURE 2 – ENVIRONMENTAL PROTECTION AGENCY REGIONS**



If a discharge or release affects areas covered by two or more RCPs, the response mechanism of both may be affected. In this case, response actions of all regions concerned shall be fully coordinated as detailed in the RCPs.

If a discharge or release affects two or more areas, EPA, USCG, DoD, DOE, or other lead agency, as appropriate, shall primarily consider the area most vulnerable to the threat in determining which agency should provide the FOSC or RPM. The RRT shall designate the FOSC or RPM if the RRT member agencies with response authority within the affected area are unable to agree on the designation. The NRT shall designate the FOSC or RPM if members of one RRT or two adjacent RRTs are unable to agree on the designation.

### ***EPA Responses to Mississippi River***

Per MOU attached in [Annex VII](#), EPA Region 7 will provide the FOSC for investigating and responding to a discharge or release, or substantial threat of discharge or release of a pollutant from a source originating from EPA Region 7 into the UMR. EPA Region 5 will provide the FOSC for such a discharge or release originating from EPA Region 5. When a discharge or

release to the UMR main stem will result in significant response by more than one state, or when there is uncertainty as to the responding states, EPA Region 7 will provide the FOSC for a discharge or release occurring between Cairo, Illinois, and Keokuk, Iowa (UMR Mile Marker 0.0 to 364.5). EPA Region 5 will provide the FOSC for discharges and releases north of River Mile Marker 364.5. For such discharges and releases originating from facilities and other non-waterborne sources, the FOSC will be provided by the EPA Region in which the source is located.

Per MOU attached in [Annex VII](#), EPA Region 4 will provide the FOSC for investigating and responding to a discharge or release, or substantial threat of discharge or release of a pollutant entering the Mississippi River south of confluence of the Ohio and Mississippi Rivers (UMR Mile Marker 0.0). For such discharges and releases originating from facilities and other non-waterborne sources, the FOSC will be provided by the EPA Region in which the source is located.

### **300.145 Special Teams and Other Assistance Available to FOSCs**

The National Strike Force (NSF) is a special team established by USCG, including the three USCG Strike Teams (Atlantic, Gulf, and Pacific), the Public Information Assist Team (PIAT), and the National Strike Force Coordination Center. The NSF is available to assist FOSCs/RPMs in their preparedness and response duties.

The NSF provides trained personnel and specialized equipment to assist the FOSC in training for spill response, stabilizing and containing the discharge or release, and monitoring or directing response actions of RPs and/or contractors. The FOSC has a specific team designated for initial contact and may contact that team directly for any assistance. The Atlantic Strike Team has been predesignated to support EPA Region 7.

The USCG Incident Management Assistance Team (CG-IMAT) provides qualified, ICS/NIMS-trained, experienced personnel for deployment and assistance to Coast Guard Incident Commanders to protect against, respond to, recover from, and mitigate effects of all-hazard incidents and events to reduce loss of life and property, and impacts on the environment.

USCG PIAT is an element of the CG-IMAT, available to help FOSCs meet communication needs during an incident. The PIAT is a four-person team that provides crisis communications expertise during oil spills, HAZMAT releases, marine accidents, natural disasters, and terrorism incidents.

Additional support is available to FOSCs, including the Environmental Response Team (ERT), Scientific Support Coordinators (SSC), National Pollution Funds Center (NPFC), Consequence Management Advisory Division (CMAD), and Environmental Emergency Response Unit (EERU). (See the NCP, [Section 300.145](#), and the [NRF](#) for more information). Support is also available from the EPA Radiological Emergency Response Team (RERT) based in Las Vegas, Nevada, and Montgomery, Alabama.

The Superfund Technical Assessment and Response Team (START) is contracted to provide technical expertise for the response and to investigate oil and hazardous substances incidents. The team has personnel trained in health and safety, multimedia field monitoring and sampling, incident documentation, cost monitoring, cleanup restoration, and disposal techniques during oil and hazardous substances incidents.

The Emergency Rapid Response Services (ERRS) Contract is a contracting network the FOSC may use to provide support for all federally funded emergency cleanup operations on oil and hazardous substances releases. The ERRS contractor operates a 24-hour, 7-day-a-week call center to maintain response capability. The contractor can be tasked to respond within a predetermined time to support the FOSC with trained personnel and equipment to control, stabilize, clean up, and subcontract transportation and disposal during oil and hazardous substances releases.

### **300.150 Worker Health and Safety**

EPA and OSHA protection standards for workers (29 CFR 1910.120) implement Section 126 of Title I of the SARA of 1986. Title I directs OSHA and EPA to publish regulations to ensure health and safety of all workers potentially exposed to risks present during hazardous waste operations and emergency response. The Worker Protection Standards apply to employers whose employees are engaged in hazardous waste operations and emergency response.

OSHA regulations apply directly to all federal and private employees in states without OSHA-approved plans. In states (in Region 7, the State of Iowa) having an OSHA-approved plan, those state (Iowa) regulations apply to state, local, and private employees. EPA's workers-protection regulations cover state and local government employees without OSHA-approved plans.

Additionally:

- Response actions under the NCP will comply with provisions for response action worker safety and health in 29 CFR 1910.120.
- In a response action by an RP, the RP must assure that an occupational safety and health program consistent with 29 CFR 1910.120 is in place for protection of workers at a response site.
- When a state or political subdivision of a state without an OSHA-approved state plan is the lead agency for a response, the state or political subdivision must comply with standards in 40 CFR Part 311, promulgated by EPA pursuant to Section 126 (f) of SARA. In Region 7, Iowa is the only state with an OSHA-approved state plan.

### **300.155 Public Information and Community Relations**

The FOSC may request a public information specialist to handle media and community relations. The NCP (300.415) requires preparation of a community relations plan under certain circumstances. Public information coordination through the Joint Information Center is described in Appendix H to the NRF ESF #10 Supplement. At minimum is need to disseminate emergency public information and warnings to the primary impacted areas and contiguous areas. Depending on incident size, it may be necessary to respond to local, state, regional, national, and international media regarding political, governmental, and individual inquiries about situational awareness, information sharing, and information gathering. Region 7 will implement an Information Collection Plan for a major oil spill or HAZMAT incident.

Information dissemination relating to natural resource damage assessment (NRDA) activities shall be coordinated through the lead administrative trustee. The lead administrative trustee may assist the FOSC by disseminating information regarding issues relating to damage assessment activities.

### **300.160 Documentation and Cost Recovery**

Section 300.335 of the NCP outlines the types of funds that may be available to remove certain oil and hazardous substance discharges. Section 300.315 of the NCP addresses documentation and cost recovery provisions for discharges/releases of oil or hazardous substances, pollutants, or contaminants. The following provisions apply:

During all phases of response, the lead agency shall complete and maintain documentation to support all actions under the RICP and to form the basis for cost recovery. In general, documentation shall be sufficient to convey the source and circumstances of the discharge/release; identify responsible parties; specify response action taken; provide accurate accounting of federal, state, or private party costs incurred for response actions; and indicate impacts and potential impacts on public health and welfare and the environment. Where applicable, documentation shall state when the NRC received notification of a release of oil or discharge of a reportable quantity.

Information and reports obtained by the lead agency for OPA fund-financed response actions shall, as appropriate, be transmitted to the NPFC. Copies can then be forwarded to the NRT, members of the RRT, and others, as appropriate.

The lead agency shall make available to the trustees of affected natural resources information and documentation that can assist the trustees in determination of actual or potential natural resource damages. Response actions undertaken by the participating agencies shall proceed under existing programs and authorities when available. Federal agencies are to make resources available, expend funds, or participate in response to discharges and releases under their existing authority. Further provisions for documentation and cost recovery concerning discharges of oil are described in Section 300.335 of the NCP.

Documentation and financial management under ESF #10 shall be consistent with the Financial Management Annex to the NRF, and other provisions of this RICP.

### **300.165 FOSC Reports**

FOSC reports will be submitted when requested by the RRT or NRT.

### **300.170 Federal Agency Participation**

Federal agencies listed in Section 300.175 have duties established by statute, executive order, or Presidential directive that may apply to federal response actions that follow or prevent discharge of oil or release of a hazardous substance, pollutant, or contaminant. Federal agencies may be called upon by an FOSC during response planning and implementation to provide assistance in their respective areas of expertise. Some of these agencies also have duties relating to restoration, rehabilitation, replacement, or acquisition of natural resources equivalent to those damaged or lost as a result of such discharge or release.

Specifically, federal member agency responsibilities include:

- Assisting the RRT and FOSCs in formulating and maintaining Region 7's RICP;
- Informing the RRT of changes in availability of their respective response resources; and
- Reporting discharges and releases from facilities or vessels under their jurisdiction or control.

Additional federal agency responsibilities are described in [Section 300.170](#) of the NCP, the [NRF](#), and [ESF #10 Support Annex](#).

### **300.175 Assistance by Federal Agencies**

During preparedness planning or an actual response, various federal agencies may be called upon to provide assistance in their respective areas of expertise, as in Section 300.175 (b) of the NCP. Those federal agencies are:

EPA  
DHS  
USCG  
FEMA  
CISA  
DOE  
DoD  
USACE  
U.S. Navy Supervisor of Salvage (SUPSALV)  
USDA



U.S. Forest Service  
Agriculture Research Service  
Natural Resource Conservation Service  
Animal and Plant Health Inspection Service  
Food Safety and Inspection Service

DOC

National Oceanic and Atmospheric Administration (NOAA)

HHS

Public Health Service  
Agency for Toxic Substances and Disease Registry (ATSDR)  
Centers for Disease Control and Prevention  
Indian Health Service  
National Institutes of Health  
National Institute for Environmental Health Sciences

DOI

Bureau of Land Management (BLM)  
USFWS  
U.S. Geological Survey (USGS)  
Office of Surface Mining Reclamation and Enforcement  
National Park Service (NPS)  
U.S. Bureau of Reclamation (USBR)  
Bureau of Indian Affairs (BIA)

DOJ

DOL

OSHA

DOT

PHMSA

DOS

Nuclear Regulatory Commission

GSA

### **300.180 State and Local Participation in Response**

Each governor is requested to designate a lead state agency that will coordinate state-lead response operations. That agency is responsible for designating the state's representative to the RRT and the state's FOSCs. The state's representative may participate fully in all activities of the RRT.

State and local government agencies are expected to develop contingency plans consistent with the NCP and this RICP. State and local representatives will be encouraged, along with Federal representatives, to actively participate in development of appropriate subarea plans that are consistent with contingency plans developed by LEPCs, as required under EPCRA. Federal, state, and local officials will continually work together to improve coordination of efforts during responses to discharges of oil or releases of hazardous substances.

The lead state agency is responsible for communicating and coordinating with other state agencies as appropriate. The lead state agency will also act as liaison with lead agencies of local government. Local governments are invited to participate in activities on the RRT as may be arranged by the state's representative.

In the event of an incident, the state RRT member/representative will be notified via the NRC. NRC notifications are sent to the appropriate state response agency per protocols developed by the state, and are defined in the following paragraphs. The state response agency will ensure completion of the following actions, as appropriate:

- Notify downstream water users (municipal, industrial, and agricultural) of all discharges and releases that may threaten them.
- Notify and coordinate with other state and local agencies, as appropriate, including state trustees for natural resources (see [Appendix D.3](#)).
- Be responsible, in conjunction with the EPA representative, for:
  - Assisting EPA in determining and providing advice on the degree of hazard of the discharge or release to public health and safety;
  - Assisting EPA in assessment of environmental damage caused by the discharge or release;
  - Assuming responsibility for operation and maintenance of a site, if necessary and when no RP has been identified.

### ***The State of Iowa***

The Iowa Department of Natural Resources (IDNR) is the state agency that provides a representative to the RRT, enforces environmental laws, and coordinates response to spills. If a threat to public safety or the environment exists, IDNR coordinates requested assistance from state agencies, and acts as the liaison with federal officials. Agency personnel are available

24 hours a day for technical assistance to abate exposure of citizens to HAZMAT, and for investigation of pollution incidents and assessment of environmental damages. Requests for disposal sites and incinerators for waste oil should be coordinated through IDNR. Regarding radiological incidents, the State Radiation Program within the Iowa Department of Public Health is the lead in coordination of response.

### ***The State of Kansas***

The Kansas Department of Health and Environment (KDHE) is the lead agency in the state for enforcement of environmental laws and response to oil and hazardous substances release incidents. A member of this department is the RRT representative. Regarding radiological incidents, the State Radiation Program within KDHE is the lead in coordinating a response.

### ***The State of Missouri***

The Missouri Department of Natural Resources (MoDNR), Division of Environmental Quality assists response to HAZMAT incidents and oil discharges in accordance with MDNR's Hazardous Substance Emergency Response Plan. A member of this department is the RRT representative. Regarding radiological incidents, several state agencies have responsibilities and authority to respond. Responses to radiation issues at facilities are led by the Missouri Department of Health and Senior Services. Transportation and environmental responses to radiation incidents are led by MoDNR. Both of these agencies typically coordinate and communicate with each other on radiation responses.

### ***The State of Nebraska***

The Nebraska Department of Environment and Energy (NDEE) coordinates the state's responses to a discharge of oil or a release of a hazardous substance. A member of this department is the RRT representative. Regarding radiological incidents, the State Radiation Program within Nebraska Health and Human Services is the lead in coordinating a response.

### ***Natural Resources***

State conservation departments, through their respective state representatives on the RRT, shall coordinate fish and wildlife preservation measures. When necessary, the appropriate state agency will close areas to commercial and recreational fishing due to health hazards.

### ***Local Emergency Planning Committees***

LEPCs are responsible for development and maintenance of local emergency response plans in accordance with EPCRA, Sections 301 to 303. LEPC members include various representatives from local governmental agencies, emergency responders, environmental groups, and local industry. Emergency plans developed by these groups must include identity and location of HAZMAT, procedures for immediate response to a chemical accident, ways to notify members of the public of actions they must take in the event of a discharge or release, names of coordinators at plants, and schedules for testing the plan.

The local emergency response plan must be reviewed by the SERC. RRTs may review these plans and provide assistance if the SERC or LEPC so requests. Federal contingency plans provide for coordination with local governments.

### **300.185 Non-governmental Participation**

The [NRT's Use of Volunteers Guidelines for Oil Spills](#) guides use of volunteers during a discharge/release. While 31 U.S.C. 1342 prohibits EPA and USCG personnel from accepting an offer of volunteer services, a large oil spill that threatens inland waters of the United States probably qualifies as an emergency, and thus allows Federal Government personnel to accept voluntary services. The NCP requires the FOSC to identify uses of volunteers during response actions in ways that should generally not involve physical removal or remedial activities.

Suggested alternative duties are as follows:

- Wildlife Cleanup (see [Appendix A.1, Section 6.3](#) for additional information and requirements)
- Construction
- Crowd Control
- Administrative / Logistical Work

- Community Liaison
- Public Relations.

OSHA regulations require specific initial training of workers prior to their engagement in hazardous waste operations or emergency response that could cause exposure to safety and health hazards. In 2010, the Corporation for National and Community Service entered into a Memorandum of Understanding (MOU) with USCG and EPA. Refer to the attached MOU in [Annex VIII](#).

Industry groups, academic organizations, and others are encouraged to commit resources for response operations. This plan anticipates and encourages representation from industry, landowners, volunteer groups, and other stakeholders. Non-governmental participants will have an ex-officio role on the AC.

Several non-governmental entities can provide assistance during a pollution response action within EPA Region 7. A partial listing of this information is as follows, and further information appears in Section 300.210 of the NCP:

- Chemical Transportation Emergency Center (CHEMTREC) provides technical expertise, coordination of chemical manufacturers, and emergency response information on chemical spills. Can be accessed by calling 1-800-424-9300 (24-hour emergency number); or for planning purposes, (202) 887-1255 during business hours.
- American Chemistry Council (ACC) is an association of chemical manufacturers in Washington, D.C. CMA's Community Awareness and Emergency Response (CAER) program has provided guidance to chemical plant manufacturers regarding interactions with the local community in development of local HAZMAT response plans. Contact through CHEMTREC, 1-800-262-8200.
- Bureau of Explosives – Association of American Railroads, Washington, D.C., can provide technical advice during railroad incidents. The Bureau of Explosives may provide assistance in accident assessment, classification of materials, environmental impacts, methods of cleanup, and mechanical evaluations of trains. Contact through CHEMTREC, 1-800-262-8200.
- Kansas State University (KSU) Center for Hazardous Substance Research – KSU leads a seven-institution consortium consisting of itself, Montana State University, and the Universities of Iowa, Missouri, Montana, Nebraska, and Utah. The Center was established in February 1989 to conduct research concerning identification, treatment, and reduction of hazardous substances resulting from various agricultural and industrial

activities. Contact the Center's Technology Transfer Director at Ward Hall, KSU, Manhattan KS 66506-5102; telephone: (785) 532-6519.

- American Petroleum Institute (API), 200 Massachusetts Avenue NW, Suite 1100, Washington, D.C. 20001; telephone: (202) 682-8000. This organization represents major producers and refiners of the petroleum industry, and can provide technical and operational expertise.
- National Pesticides Information Center; 24-hour number: (800) 858-7378.
- Chlorine Institute; telephone: (703) 894-4140.
- Tri-State Bird Rescue and Research, Inc. has extensive experience in bird rescue and rehabilitation; telephone: (302) 737-9543; 24-hour pager: 1-800-710-0695 or 0696.
- Wildlife Response Services, P.O. Box 842 Seabrook, TX 77586; Managing Director: Rhonda Murgatroyd, telephone: (713) 705-589
- International Bird Rescue Research Center also has extensive experience in bird rescue and rehabilitation; telephone: (707) 207-0380.

Any wildlife rescue and rehabilitation will be directed by the affected state's natural resource trustee and USFWS.

## **SUBPART C PLANNING AND PREPAREDNESS**

### **300.200 General**

The RRT and AC serve as a planning and preparedness bodies to support the FOSC, and are encouraged to include membership from Federal, state, and local governments and private entities (as ex-officio members). The AC is not a response-support body and is not required to participate in response efforts, but its members should have knowledge of response procedures.

### **300.205 Planning and Coordination Structure**

National: The NRT is responsible for national planning and coordination.

Regional: RRTs are responsible for regional planning and coordination. In addition, the EPA RRT Co-chair is responsible for the ESF #10 components of this plan. This RICP consolidates the RCP, the ACP, and the ESF #10 (NRF) into a single plan.

Area: This RICP covers EPA Region 7: Iowa, Kansas, Missouri, and Nebraska. Additional plans integrated through this RICP are seven subarea plans that include four Metropolitan Statistical Areas (MSA) and the Missouri River Basin. Subarea contingency plans are listed in Section 300.215 of this RICP and accessible at [Region 7 Subarea Plans](#).

State: The SERC of each state, appointed by the Governor, is to designate emergency planning districts, appoint LEPCs, supervise and coordinate their activities, and review local HAZMAT response plans.

Local: Emergency planning districts are designated by the SERC to facilitate preparation and implementation of emergency plans. Each LEPC is to prepare a local HAZMAT response plan for the emergency planning district, and receive and process requests from the public for information generated by Title II reporting requirements.

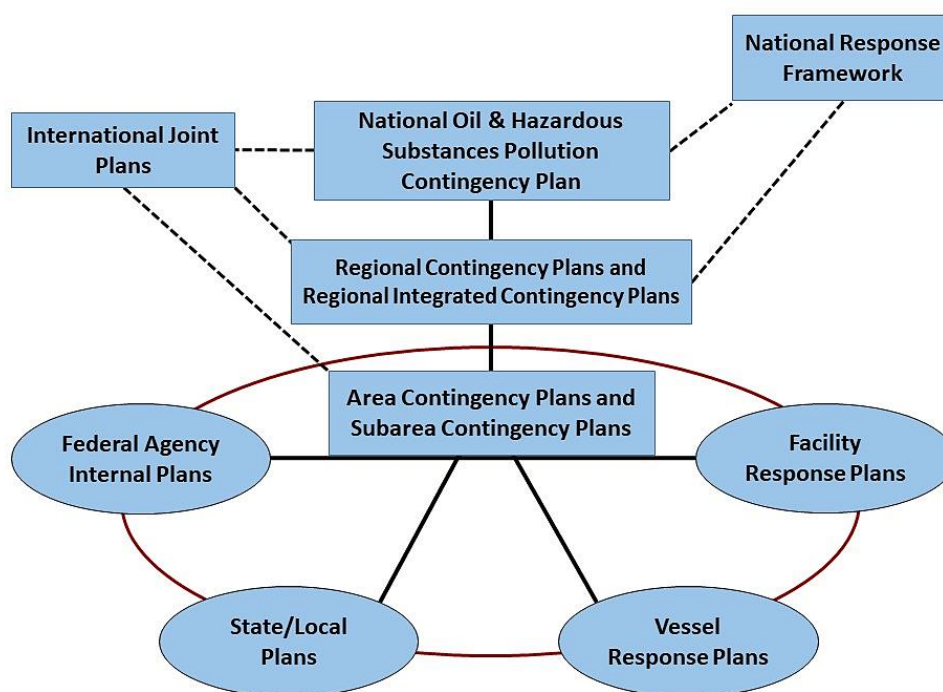
On-Shore Facilities: Those that could be expected to cause substantial harm to the environment, because of their location, are required to plan for a worst case discharge.

### 300.210 Federal Contingency and Response Plans

The NCP's Section 300.210 identifies three levels of federal contingency plans for oil discharges and hazardous substance releases: National, Regional, and Area. In Region 7, the RRT also serves as the AC, and this RICP fulfills all NCP requirements for both an RCP and an ACP.

As noted in Section 130.130, in the event of an incident requiring a coordinated federal response, the NRF may be activated. Figure 3 shows relationships among various levels of oil and HAZMAT response plans under and related to the NCP.

**FIGURE 3 - RELATIONSHIP OF PLANS**



Section 311 (j)(4)(C)(i), of the CWA requires that this RICP, when implemented in conjunction with the NCP, be adequate to remove a worst case discharge (WCD). Region 7 determines a WCD to involve ANY discharge or threat of a discharge in sufficient quantities to impact public health, welfare, or the environment, where the parties responsible for the threat or discharge are unwilling or unable to perform the required response actions. This RICP regards a WCD in an identical manner.



An oil spill scenario applicable to Region 7 is described in the following section. The formulation provides parameters for what may be a WCD. The information will be updated as more FRPs are received and as additional regulations are developed.

### ***Oil Spill Scenario (Worst Case)***

**Assumptions:** In all cases, assume parties contributing to the spill are not or cannot take appropriate response action.

**Hazard Assessment:** Each state within Region 7 is unique, but the Region 7 states also share common concerns. By examining the history of incidents (i.e., natural or technological accidents), inevitable future occurrences can be better met. Understanding the community or surrounding area is crucial for proper planning. An industry that produces, uses, or stores oil may pose a high risk of a technological hazard to the community. Although the community may not be at risk, the facility may be close to or within a highly vulnerable area. For example, a facility may be near a fault line or along a river, or may pose risk due to nearby industrial or transportation activities. The hazard assessment should include facilities' potential impact on economically or environmentally sensitive areas.

**Vulnerability Analysis:** Particular points of environmental and economic sensitivity include, but are not limited to, the Environmentally and Economically Sensitive Areas within Iowa, Kansas, Missouri, and Nebraska, which are listed in [Appendix A.2](#) and [Appendix A.3](#) of this RICP.

**Seasonal/Geographic Considerations:** Each state could undergo widespread or localized flooding due to heavy rains, flooding caused by ice jams on major rivers, and tornados. Potential for disastrous earthquakes exists along the New Madrid Fault in southeast Missouri and along the Nemaha Uplift, a buried feature extending from the Kansas-Nebraska border in northeast Kansas to south-central Kansas.

### ***Response Priorities***

EPA Region 7, to further development of WCD scenarios, created a list of suggestions and checklists to provide quick access to critical information to assist facilities in formulating a strategy to prepare for and address a WCD. This compilation is neither a textbook nor a

substitute for training, qualified technical advice, or common sense. It addresses response only to oil spills that could reach water. The following should be considered when attempting to minimize effects of an oil spill:

Health and safety are the first priorities. Responders should be alert to:

- Fire and explosion potential from vapors at or near the spill site;
- Potential toxic effects of the spill and chemical countermeasures;
- Proper use of safety equipment;
- Hyperthermia, hypothermia, frostbite, or sunburn;
- Small boat safety;
- Helicopter and aircraft safety.

**Speed is essential in recovery efforts.** Responders should keep in mind that:

- Oil spreads and drifts rapidly; delays will rapidly increase the area needing cleanup.
- If in situ burning is a desirable alternative and a viable option, best results will come from earliest ignition possible because of potential for evaporation and emulsification.
- Sustained combustion requires at least 0.1 inch (2-3 millimeters) of slick thickness.
- Oil is usually easier to deal with on water than after it has contacted the shore.
- Any proposal for in situ burning requires consultation among the FOSC, the state member of the RRT, federal and state natural resource trustees, and the state air permitting agency; thus development of a comprehensive proposal early in the spill response phase is desirable.

### ***Cleanup Priorities***

The nine oil spill remediation steps are:

1. Stop the discharge.
2. Contain and remove spilled oil at the source to the extent possible.
3. Assess the amount and type of spilled oil via surveillance and tracking.
4. Follow procedures defined in contingency plans; modify them as needed; document all actions.
5. Protect threatened resources and monitor shore-bound oil.

6. Contain and remove offshore oil that has escaped the primary control operation at the source.
7. Skim oil that has pooled in natural collection areas such as sloughs and coves.
8. Clean up shorelines where oil has stranded, to the extent possible and advisable.
9. Dispose of collected materials in accordance with applicable regulations.

### ***Shortfalls***

Potential shortfalls expected in responses to any contemplated type of oil spill may include the following:

- Equipment:
  - Logistics of staging and maintaining operable equipment;
  - Limited availability and shelf-life of specialized cleanup and/or monitoring equipment;
  - Inaccessibility of the discharge or release by the equipment available.
- Personnel:
  - Immediate unavailability of skilled personnel;
  - Unfamiliarity of personnel from outside the area with the terrain or available equipment;
  - Need to integrate personnel from various agencies and areas, and with various experiences into an effective response.
- Funds:
  - Exceedance of funds available to the RP by cleanup costs;
  - Dependence of availability of funds through the NPFC on knowledge of the FOSC and the SOSC.
- Possible delayed response by some or all parties because of remoteness of spill location.
- Possible substantial delays in identifying and obtaining additional resources.

### ***Procedures and Criteria for Terminating the Cleanup***

EPA Region 7 cleanup procedures will continue until joint determination to cease cleanup operations by the FOSC and SOSC, natural resource trustees, RP, and local incident commander.

Region 7 hosts very diverse industries and ecological zones. A spill of one substance and size might minimally affect one area but devastate another. Procedures and response guidelines will be written for Region 7 and incorporated into this plan.

### ***Spill History***

To prepare for the inevitable oil spill incident, a responder must know the possible parameters of potential occurrences. Examining the spill history of an area is a good way to anticipate what is likely to happen in the future. All oil spills of reportable quantity are to be reported to the NRC: 1-800-424-8802.

When spills are reported, notice is disseminated to the predesignated USCG/EPA FOSC in the jurisdiction where the spill occurred for possible response actions. Research of oil-specific information resulted in a listing of the larger petroleum spills within Region 7.

### ***Categories***

Specific spill categories were researched from the NRC's spill report database in each Region 7 state. These categories are pipelines, fixed facilities, highways, and railways. The largest discharge and/or release from each type of source since 2010 is listed in Table I below. Data listed in Table II were obtained by EPA for potential WCDs involving these sources. Spill data on potential discharges involving vessels were obtained from USCG. The data come from natural, human, and technological events (see [Appendix F](#)).

**TABLE I: LARGEST OIL SPILLS IN REGION 7 SINCE 2010**

<b>SOURCE</b>	<b>IOWA</b>	<b>KANSAS</b>	<b>MISSOURI</b>	<b>NEBRASKA</b>
Pipeline	138,600 gallons (gal.) Diesel	588,000 gal. Diluted Bitumen	126,000 gal. Diesel	140,742 gal. Natural Gasoline
Fixed Facility	70,000 gal. Waste Oil	21,000 gal. Waste Oil	3,800 gal. Mineral Oil	10,400 gal. Jet Fuel
Highway	8,200 gal. Petroleum Solvent	6,720 gal. Fuel Oil	6,564 gal. Heavy Petroleum Distillate	6,000 gal. Asphalt Cement
Railway	160,000 gal. Crude Oil / Diluent Mix	84,000 gal. Diesel	126,000 gal. Diesel	140,742 gal. Natural Gasoline

Source: NRC website (accessed October 2019)

Table II lists WCD possibilities for a land-based source in Region 7.

**TABLE II: WORST CASE DISCHARGE — LAND-BASED SOURCE**

SOURCE	CAPACITY	PRODUCT
Pipeline	123,810 Barrels/ 5.2 million gallons (gal.)	Various Petroleum Products
Fixed Facility (Above Ground Tank)	40,500 Barrels/ 17 million gal.	
Highway	12,000 gal.	
Railway	9,520 Barrels/ 400,000 gal.	

Table III lists WCD possibilities for a vessel on the Mississippi or Missouri Rivers.

**TABLE III: WORST CASE DISCHARGE — VESSEL**

BARGE DIMESIONS	CAPACITY	PRODUCT
<b>200' x 35' x 12.5'</b> More commonly used on the Upper Mississippi and Missouri River. Barges are normally chartered-out as "unit tows" consisting of two to three barges and a towboat.	10,000 Barrels/ 420,000 gallons (gal.)	<ul style="list-style-type: none"> <li>– Crude Oil</li> <li>– Unfinished Oils</li> <li>– Gasoline Blending Components</li> <li>– Reformulated Blendstock for Oxygenate Blending with Alcohol/Gasoline Components</li> <li>– Conventional Gasoline Blending Components</li> <li>– Finished Motor Gasoline</li> </ul>
<b>297.5' x 54' x 12'</b> Barges are normally chartered-out as "unit tows" consisting of two barges and a towboat.	30,000 Barrels/ 1.2 million gal.  <i>Two barges transport as much product as a 100-car unit train.</i>	<ul style="list-style-type: none"> <li>– Kerosene-Type Jet Fuel Distillate</li> <li>– Fuel Oil</li> <li>– Residual Fuel Oil</li> <li>– Petrochemical Feedstocks</li> <li>– Special Naphtha Compounds</li> <li>– Lubricants</li> <li>– Asphalt and Road Oil</li> </ul>

Source: USCG (April 2017)

### ***Adequacy to Remove a Worst Case Discharge***

This RICP, when implemented in conjunction with the NCP, is adequate to mitigate and/or prevent a substantial threat of a WCD. Private industry and local emergency responders provide the front-line defense in response to all spills, including a WCD.

Adequacy to remove a WCD is currently addressed through existing contingency plans, guidance manuals, and response support agreements among federal agencies and regions. This RICP outlines federal resources available to the FOSC from RRT agencies, and conveys regional response policies. Local emergency contingency plans outline resources available from outside RRT agencies. This RICP also lists resources not included in any of the referenced plans.

In assessing adequacy of removal of the different categories of WCDs listed in Tables II and II, [Appendix C.1](#) and [Appendix C.2](#) list contractors based in/near Region 7 that may be accessed for additional equipment.

Regarding prevention of oil spills, including a WCD, the Spill Prevention, Control, and Countermeasures (SPCC) Program, administered through EPA, requires all non-transportation-related facilities within EPA's jurisdiction to develop plans necessary to contain a discharge of oil and prevent it from reaching waters of the United States. This program is much broader than contingency planning. It requires facilities to develop and design plans that include installation of equipment—most notably secondary containment systems such as dikes, barriers, and diversionary flow paths—so as to prevent spills into waters of the United States.

If such design and engineering controls are not practicable for a facility, the owner must provide a detailed contingency plan following the criteria outlined in 40 CFR Part 109. Some of these criteria include establishment of notification procedures, identification of resources, and provisions for specific actions. For transportation-related onshore and offshore facilities, such as vessels, DOT issues regulations concerning safe handling of HAZMAT.

### **300.215 Subarea Contingency Plans**

EPA Region 7 has adopted the concept of subarea plans. Subarea plans are specific to smaller geographic areas within Region 7 and are subordinate to this RICP. Within Region 7, the following subarea plans have been developed:

- Central Kansas Wetlands Subarea Contingency Plan;
- Great Rivers Subarea Contingency Plan;
- Greater St. Louis Subarea Contingency Plan;
- Omaha/Council Bluffs Subarea Contingency Plan;
- Quad Cities Subarea Contingency Plan;
- Siouxland Subarea Contingency Plan;
- South-Central Nebraska Subarea Contingency Plan.

These plans are accessible at [Region 7 Subarea Plans](#).

### **300.220 State-level Response Plans**

The States of Iowa, Kansas, Missouri, and Nebraska each maintains state-level operations plans to coordinate roles and responsibilities for state agencies, departments, and offices. The following state plans have been developed:

- [Iowa Response Plan](#);
- [Kansas Response Plan](#);
- Missouri State Emergency Operations Plan (current plan not publicly available);
- Nebraska Emergency Operations Plan (current plan not publicly available).

### **300.225 Fish and Wildlife Response Plan**

Section 90 of the OPA amended Section 311 (d) of the CWA, 33 U.S.C. § 1321 (d), to include a fish and wildlife response plan, developed in consultation with USFWS, NOAA, and other interested parties (including natural resource managers and state fish and wildlife conservation officials), for immediate and effective protection, rescue, and rehabilitation of, and minimization of risk of damage to, fish and wildlife resources and their habitat harmed or that may be jeopardized by a discharge.

Additionally, federal agencies (EPA, USCG, USFWS, NOAA, and DOI) have signed a MOA regarding coordination of listed species consultation during planning and response activities. In [Annex V](#) to this RICP are summaries of FOSC and USFWS responsibilities under the ESA, implementing regulations, and the Interagency MOA Regarding Oil Spill Planning and Response Activities under the Federal Water Pollution Control Act's (FWPCA) National Oil and Hazardous Substances Pollution Contingency Plan and the ESA (ESA MOA). Section 6.4 of the FWSEP in [Appendix A.1](#) to this RICP also provides guidance for ESA MOA implementation.

For the Fish and Wildlife and Sensitive Environments listing, see [Appendix A.3](#) to this RICP.

### **300.230 Facility Response Plans**

An FRP demonstrates a facility's preparedness to respond to a worst case oil discharge. Under the CWA, as amended by the OPA, certain facilities that store and use oil are required to prepare and submit these plans. Facilities submit FRPs for review to EPA Region 7 for inland facilities, and to USCG for over-water transfer facilities. The appropriate COTP reviews and approves FRPs under USCG jurisdiction. Vessel Response Plans are submitted to local USCG HQ for review and approval. Both federal agencies maintain current copies of all plans submitted from within their jurisdictions. Certain facilities—those posing a significant and substantial threat to the environment but granted approval to operate with an approved FRP—have provided certification that they have, by contracts or other approved means, the resources capable of removing WCDs from their facilities. In Region 7, all facilities determined to pose such a risk have provided adequate certifications. All FRPs are reviewed to verify adequacies of resources to remove facility WCDs. Among the additional requirements, FRPs must be integrated with local emergency plans prepared under EPCRA. A complete list of FRPs is in [Appendix B.1](#) and is also accessible through the [EPA Region 7 Response & Planning Public Viewer](#).

### **300.235 Risk Management Plans**

Under authority of Section 112(r) of the Clean Air Act, the Chemical Accident Prevention Provisions require facilities that produce, handle, process, distribute, or store certain chemicals to develop a Risk Management Program, prepare a Risk Management Plan (RMP), and submit the RMP to EPA. Within Region 7, about 2,100 RMPs have been identified. A complete list of



RMPs is in [Appendix B.1](#) and is also accessible through the [EPA Region 7 Response & Planning Public Viewer](#).

### **300.240 Area Response Drills**

To check adequacy of a facility to remove a WCD, the federal lead agency, EPA or USCG, shall periodically conduct Government Initiated Unannounced Exercises (GIUE) and drills of removal capability, without prior notice, in areas for which ACPs are required and under relevant Vessel Response Plans and FRPs. The drills are to occur under the National Preparedness for Response Exercise Program (PREP), and may include participation by federal, state, and local agencies, owners and operators of vessels and facilities in the area, and other elements of private industry.

This RICP shall integrate approved vessel, offshore facility, onshore facility, pipeline, and bulk transportation response plans. Regional response policies and preparedness activities concerning inland issues are currently addressed through the RRT, and outlined in this RICP, which is approved by *BOTH* EPA and USCG co-chairs.

### **300.245 EPCRA Local Emergency Response Plans**

Regulations that implement EPCRA are codified at 40 CFR Part 355. The plans are developed by LEPCs with stakeholder participation. Each LEPC is to prepare an emergency response plan in accordance with Section 303 of EPCRA, and to review the plan once a year, or more frequently as changed circumstances in the community or at any subject facility may require. Every community in the United States must be part of a comprehensive plan. These local emergency response plans should be closely coordinated with applicable ACPs and state emergency response plans.

Information pertaining to contacts with Region 7 SERCs and LEPCs is in [Appendix D.1](#) and [Appendix D.2](#), respectively.

### **300.250 Cultural Sites**

Culturally sensitive sites in the vicinity of a spill can be identified by contacting the appropriate State Historic Preservation Officer ([SHPO](#)). This individual is generally associated with the

State Historical Preservation Office or Society, which may or may not be within a department of state government. Contacts for individual states are as follows:

- Iowa State Historic Preservation Officer (Historical Society of Iowa) – (515) 281-8749;
- Kansas State Historic Preservation Officer (Kansas Historical Society – (785) 272-8681;
- Missouri State Historic Preservation Officer (MDNR) – (573) 751-4732 / (573) 526-7858;
- Nebraska State Historic Preservation Officer (Nebraska State Historical Society) – (402) 471-4745/ (402) 471-4733.

Specific procedures and FOSC responsibilities regarding these sites are set forth in Section 7 of the Fish and Wildlife and Sensitive Environments Plan ([Appendix A.1](#)) and the Programmatic Agreement on Protection of Historic Properties During Emergency Response ([Annex VI](#)).

### **300.255 Pandemic Plans**

During the 2020 calendar year, work practices of federal, state, and local agencies were significantly impacted by the coronavirus disease 2019 (COVID-19) outbreak and subsequent pandemic. As a result, Region 7 RRT determined that pandemic planning among member agencies is necessary for effective support of the FOSC, and therefore, is included in this RICP. While approved plans have been widely implemented by agencies throughout Region 7, guidance materials to assist pandemic planning are available at the [Region 7 RRT website](#).

## **SUBPART D OPERATIONAL RESPONSE PHASES FOR OIL REMOVAL**

### **300.300 Discovery and Notification**

Notice of an oil discharge or release of a hazardous substance in an amount equal to or greater than the reportable quantity must occur immediately in accordance with [33 CFR Part 153.203](#), [Subpart B](#) and [40 CFR Part 302.6](#), respectively. It is the spiller's responsibility to report all spills. The spiller or responsible party is required to immediately report to the NRC all discharges of oil into or on navigable water, adjoining shorelines, or the contiguous zone. Notification will be made to the NRC Duty Officer, HQ USCG, Washington, D.C., telephone (800) 424-8802. All notices of discharges or releases received at the NRC will be relayed immediately by telephone to the Region 7 REOC (913-281-0991), appropriate USCG COTP office (Sector Upper Mississippi River [(314) 269-2332], Sector Lower Mississippi River [(901) 521-4822], Sector Ohio Valley [(502) 779-5400]), or lead agencies. The FOSC receiving this call will ensure notification to the appropriate state agency, tribes, and drinking water intakes which are, or reasonably expected to be, affected by the discharge or release. The FOSC will then proceed with the following phases.

### **300.305 Preliminary Assessment and Initiation of Action**

The FOSC is responsible for promptly initiating a preliminary assessment and determining whether or not proper response actions have been initiated. If the RP for the discharge/release does not act promptly or does not take appropriate actions, or if the RP is unknown, the FOSC shall respond in accordance with provisions of the NCP and agency guidance, and coordinate activities as outlined in this RICP.

- In carrying out a response under this section, the FOSC may:
  - Remove or arrange for removal of a discharge, and mitigate or prevent a substantial threat of a discharge, at any time.
  - Direct or monitor all federal, state, and private actions to remove a discharge.
  - Remove and, if necessary, destroy a vessel discharging or threatening to discharge, by whatever means are available.
- If the discharge results in a substantial threat to the public health or welfare of the United States (including but not limited to fish, shellfish, wildlife, other natural resources, and public and private beaches and shorelines of the United States), the FOSC must direct all response efforts, as provided in Section 300.322 of the NCP. The FOSC may act without

regard to any other provision of the law governing contracting procedures of employment of personnel by the Federal Government in removing or arranging for removal of such a discharge.

- The FOSC shall ensure that the natural resource trustees and natural/historic resource managers are promptly notified in the event of any discharge of oil, to the maximum extent practicable as provided in the Fish and Wildlife and Sensitive Environments Plan ([Appendix A.1](#)), the ESA MOA ([Annex V](#)), and the Programmatic Agreement on Protection of Historic Properties During Emergency Response under the NCP ([Annex VI](#)).

The FOSC, trustees, and natural/historic resource managers shall coordinate assessments, evaluations, investigations, and planning with respect to appropriate removal actions. The FOSC shall consult with the affected trustees on the appropriate removal action to occur. The trustees will provide timely advice concerning recommended actions regarding trustee resources potentially affected. The trustees also will assure that the FOSC is informed of their activities in natural resource damage assessment that may affect response operations. The trustees will assure that all data from the natural resource damage assessment activities that may support more effective operational decisions are provided in a timely manner to the FOSC. Where circumstances permit, the FOSC will share use of non-monetary response resources (i.e., personnel and equipment) with the trustees, provided trustees' activities do not interfere with response actions. The Federal Lead Administrative Trustee (FLAT) facilitates effective and efficient communications between the FOSC and the other trustees during response operations, and is responsible for applying to the FOSC for non-monetary federal response resources on behalf of all trustees. The FLAT is also responsible for applying to the NPFC for funding for initiation of damage assessment for injuries to natural resources.

### **300.310 Containment, Countermeasures, Control and Disposal**

Defensive actions shall begin as soon as possible to prevent, minimize, or mitigate threat(s) to the public health or welfare of the United States or the environment. Actions may include sampling and analysis, control of the source of a discharge, source and spread control or salvage operations, placement of physical barriers to deter spread of oil and protect natural resources and sensitive ecosystems, control of water from upstream impoundment, and use of chemical and bioremediation countermeasures (CBCs) as described in [Subpart J](#) of this RICP.

As appropriate, actions shall be taken to recover the oil or mitigate its effects. Physical removal of oil is the preferred method in Region 7. However, chemical agents can be helpful and approved under certain circumstances. There are no preapproved uses for CBCs within Region 7, excluding use on roadway spills. Of the numerous physical removal methods and CBCs that may be applied, the chosen methods shall be the most consistent with protecting public health and welfare and the environment. Sinking agents shall not be used in Region 7. Any entity interested in use of CBCs must follow the provisions specified in Subpart J of this RICP and in the NCP. Responder guidance regarding the limited use of CBCs in Region 7 can be accessed at the [Region 7 RRT website](#) in the documents section under “Fact Sheet”. Additionally, disposal of oil and contaminated materials recovered in cleanup operations shall accord with applicable laws, regulations, or requirements.

Additional authorities are available to the FOSC during response actions under the NCP, specific to CWA regulations. In accordance with 40 CFR, § 122.3 (d), an FOSC may direct a discharge to water without a National Pollutant Discharge Elimination System permit. Notably, actions subject to CWA 404 permit requirements are authorized under Nationwide Permit 20. More information about CWA 404 permit requirements, and roles and responsibilities of federal agencies under Section 404 of the CWA, are in [Appendix A.6](#).

### **300.315 Documentation and Cost Recovery**

All Oil Spill Liability Trust Fund (OSLTF) users must collect and maintain documentation to support all actions taken under the CWA. When practicable, documentation shall suffice to support full cost recovery for resources utilized, and shall identify the source and circumstances of the incident, the RP or RPs, and impacts and potential impacts on public health and welfare and the environment. Documentation procedures are specified in 33 CFR Part 136.

When appropriate, documentation shall also be collected for scientific understanding of the environment and for research and development of improved response methods and technology. Funding for these actions is restricted by [Section 6002 of the OPA](#).

FOSCs shall ensure necessary collection and safeguarding of information, samples, and reports. Samples and information shall be collected expeditiously during the response to ensure an

accurate record of impacts. Documentation materials shall be made available to the trustees of affected natural resources. The FOSC shall make available to trustees of the affected natural resources, information and documentation in the FOSC's possession that can help the trustees determine actual or potential injuries to natural resources.

Information and reports obtained by the FOSC shall be transmitted to the appropriate offices responsible for follow-up actions.

### **300.317 National Response Priorities**

Refer to the [Section 300.317](#) of the NCP for operational priorities concerning oil removal.

### **300.320 General Pattern of Response**

When the FOSC receives a report of a discharge, actions normally should occur in the following sequence:

1. Investigate the report to identify pertinent information such as the threat posed to public health or welfare or the environment, type and quantity of polluting material, and source of the discharge.
2. Officially classify the size of the discharge and determine the course of action to be followed.
3. When the reported discharge is an actual or potential major discharge, exceeding 10,000 gallons (gal.), immediately notify the RRT, the affected state, and the NRC.
4. When the investigation shows that an actual or potential medium discharge exists, the FOSC shall recommend activation of the RRT, if appropriate.
5. When the investigation indicates presence of an actual or potential minor discharge, the FOSC shall monitor the situation to ensure that proper removal action is occurring.
6. Determine whether a discharger or other person is properly carrying out removal. Removal is occurring properly when:
  - The cleanup is fully sufficient to minimize or mitigate threat(s) to public health and welfare, and to the environment.
  - Removal efforts accord with applicable regulations, including the NCP, RICP, and any FRP.
7. Determine whether a state or political subdivision thereof has capability to carry out response actions, and whether a contract or cooperative agreement has been established with the appropriate fund administrator for this purpose.

In addition, the FOSC shall:

- Request the state RRT Representative to notify any downstream water users of any release or discharge entering water courses from which they take water.
- Notify the RP of federal interest and potential action in the discharge or release. If the RP is unknown or does not respond, the FOSC shall initiate response actions.
- Attempt to have the RP voluntarily and promptly perform response actions. If the RP does not properly respond, notify the RP of potential liability for federal response costs incurred by the FOSC pursuant to the OPA and CWA.
- Ensure adequate surveillance over whatever actions are initiated by the RP.
- Make prompt notification to the trustees and other managers of affected natural/historic resources so they may initiate appropriate action when facilities or natural/historic resources have been or are likely to be affected.
- Ensure that notifications and actions required in 300.135, the FWSEP (Appendix A.1), and the Programmatic Agreement (Annex VI) have occurred. If these have not occurred, the FOSC will perform those notifications and subsequent actions.
- When appropriate, activate federal response and assessment activities using the OSLTF for oil discharges or the CERCLA Hazardous Substances Response Trust Fund for hazardous substances releases.
- Advise appropriate state/local officials on scene of the timing and nature of subsequent response actions by the predesignated FOSC or other agencies or organizations.
- Prepare and distribute POLREPS or situation reports.
- Call upon RRT resources, as appropriate, to assist in determining the necessary facts about a particular discharge or release, such as its magnitude or potential impact on human health and welfare.
- Fully inform and coordinate closely with the RRT during a response to a significant discharge or release to ensure maximum effectiveness of the federal effort in protecting natural/historic resources and the environment from pollutant damage.
- Obtain advice from natural resource trustees and/or facility/historic resource managers regarding response operations affecting resources or facilities under their jurisdictions. If response operations could affect threatened or endangered species or their habitats, the FOSC or RPM must consult with USFWS in accordance with the ESA MOA ([Annex V](#)), the FWSEP ([Appendix A.1](#)) and, if applicable, the relevant subarea contingency plan. At all times, advice shall be obtained from USFWS on response actions that may affect federally listed endangered or threatened species, and shall be binding on the FOSC, unless in his or her judgment, actions contrary to this advice must occur to protect human life.
- Ensure the safety of federal response personnel.

- Conduct the following actions, as appropriate:
  - Contain spread of the discharge/release, e.g., by trenching and diking, siphon dams (floating substances), filter fences, booms (floating substances), water sprays, stream diversion or impoundment, and gelling agents.
  - Implement countermeasures, e.g., control water discharge from upstream impoundments, mitigate contamination of water supplies.
  - Collect and remove oil from water courses and adjoining shorelines, e.g., by use of skimmers, sorbents, dredging, high-pressure water, physical/chemical treatment (see Subpart J).
  - In consultation with natural resource trustees and natural/historic resource managers, mitigate damage to waterfowl and other wildlife, and to historic properties.
  - Ensure adequate disposal of removed materials in accordance with state and federal regulations.
  - Recommend evacuation of threatened individuals to appropriate authorities.
  - Limit access to the release area, e.g., via barricades, security fences, etc.
  - Collect and analyze samples to determine source and dispersion of the discharge/release.
  - Implement countermeasures, e.g., treatment of water supplies (e.g., activated carbons), provision of alternate water supplies, control of water discharge from upstream impoundments, on-site physical/chemical treatment (see Annex IV).
  - Collect and remove released hazardous substances, e.g., via use of skimmers (floating substances), sorbents, dredging, on-site physical/chemical treatment (see [Annex IV](#) and [Subpart J](#)).
  - Ensure adequate disposal of discharged/released substances. Transportation of hazardous substances off site must comply with regulations promulgated under the Resource Conservation and Recovery Act (RCRA). Under certain circumstances, some procedural requirements of RCRA can be waived. The circumstances are described in the regulations.
- Keep the public informed of response actions.
- Arrange for scientific support coordination as needed.

### **300.322 Response to Substantial Threats to Public Health or Welfare of the United States**

As part of the investigation described in Section 300.320 and assessment activities in Section 300.305 of this plan, the FOSC shall determine whether a discharge results in a substantial threat to public health or welfare of the United States. Factors to be considered in this determination and actions that may/shall be taken by the FOSC are detailed in [40 CFR Part 300.322](#).



### **300.323 Spills of National Significance**

A discharge may be classified as a spill of national significance (SONS) by the Administrator of EPA for discharges occurring in the inland zone, and by the Commandant of the USCG for discharges occurring in the coastal zone.

### **300.324 Response to Worst Case Discharge**

If the FOSC's investigation determines that a WCD, as defined in the RICP, has occurred or there is a substantial threat of such a discharge, the FOSC shall:

- Notify the National Strike Force Coordination Center (NSFCC).
- Require, where applicable, implementation of the worst case portion of an approved tank vessel or facility response plan required by Section 311 (j)(5) of the CWA.
- Implement the worst case portion of this RICP required by Section 311 (j)(4) of the CWA.
- Take whatever additional response actions are deemed appropriate.

Under direction of the FOSC, the NSFCC shall coordinate use of private and public personnel and equipment, including Strike Teams, to remove a WCD and mitigate or prevent a substantial threat of such a discharge.

### **300.335 Funding**

If the RP for the discharge does not act promptly or take proper removal actions, or if the RP is unknown, federal discharge removal actions may begin under Section 311(c)(1) of the CWA. The discharger, if known, is liable for costs of federal removal in accordance with Section 311(f) of the CWA and other federal laws.

#### ***Accessing the "Oil Fund"***

EPA FOSCs access the Ceiling and Number Assignment Processing System ([CANAPS](#)) for federal project numbers (FPN) and authorized ceiling limits for funding certain removal actions associated with oil and hazardous waste spills.

EPA and USCG FOSCs use the Web-based system to generate, amend, cancel, and check the status of FPNs for oil spills. USCG FOSCs can also use the system for CERCLA project numbers (CPN) for HAZMAT incidents.

From the CANAPS webpage, authorized users can access [CANAPS](#). A [CANAPS User Guide](#) is also available.

### ***Contracting***

EPA-warranted FOSCs have authority to issue a verbal authorization-to-proceed involving expenditure of \$200,000 where site conditions constitute an emergency, and \$50,000 where site conditions do not warrant an emergency (provided funds are available). All verbal authorizations-to-proceed will be followed up with the required hard-copy documentation.

EPA FOSCs utilize the START and ERRS contracts for oil removals. Procedures, which are the same for Superfund removals, include notifying the Project Officers and Contracting Officers, as well as providing the necessary paperwork (Independent Government Cost Estimate and Statement of Work [SOW]). EPA Region 7 does not currently utilize any of the USCG Basic Ordering Agreements (BOA). Any decision to utilize a BOA must include EPA Contracting Officers because USCG's Contracting Officers no longer support EPA FOSCs.

### ***Eligibility for State Access***

Section 90 of OPA allows state governors to request payments of up to \$250,000 from the OSLTF for removal costs required for immediate removal of a discharge, or mitigation or prevention of a substantial threat of a discharge, of oil. Requests are made directly to the FOSC who will determine eligibility. Guidance on state access of the OSLTF is available in the [NPFC User Reference Guide](#).

Local, state, tribal, or other federal agencies may obtain funding for removal costs in two different ways: (1) initiation by EPA of a Pollution Removal Funding Authorization (PRFA), or (2) submittal of a claim to the NPFC.

A PRFA is handled much like a contract. EPA issues a SOW for the work to be performed and requires regular updates of site conditions. Once these costs are invoiced, the EPA FOSC must certify the package prior to request to the NPFC for payment.

The FOSC will determine whether the state is able to respond based on the criteria specified by the NPFC. If the state is capable, the FOSC will contact the USCG case officer to authorize access to the fund. If the FOSC denies state access to the fund, he or she will detail the reason for denying access (i.e., indicate criteria not met by the state).

### ***Required Record Keeping***

The state shall maintain records of expenditures of fund monies, including, but not limited to:

- Daily expenditures for each individual worker—indicating the individual's name, title, or position; activity performed; time on task; salary or hourly rate; travel costs; per diem; out-of-pocket or extraordinary expenses; and whether the individual is normally available for oil spill removal;
- Equipment purchased or rented each day, with the daily or hourly rate;
- Miscellaneous materials and expendables purchased each day;
- Daily contractor or consultant fees, including costs for their personnel and contractor-owned or rented equipment, as well as that of any subcontractor.

The state shall submit a copy of these records and a summary document, stating the total of all expenditures made, to the NPFC within 30 days after completion of removal actions. A copy of these documents shall also be submitted to the FOSC.

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## **SUBPART E      HAZARDOUS SUBSTANCE RESPONSE**

### **300.400      General**

Subpart E establishes methods and criteria for determining the appropriate extent of response authorized by CERCLA and CWA Section 311(c) when a release of a hazardous substance into the environment occurs and limitations on response are evident. See [Section 300.400](#) of the NCP for more information.

### **300.405      Discovery and Notification**

A release may be discovered through a report submitted in accordance with Section 103 (a) of CERCLA, i.e., reportable quantities codified in 40 CFR Part 302 and various reports and investigations. Provisions of Section 300.305 of this plan, including notifications to federal and state natural resource trustees, also apply to reports involving hazardous substances, pollutants, or contaminants.

### **300.410      Removal Site Evaluation**

The FOSC's removal site evaluation (RSE) may include, but is not limited to:

- Identification of the source and nature of the release or threat of release;
- Evaluation by ATSDR or other public health agencies of the threat to public health;
- Evaluation of magnitude of the potential threat;
- Evaluation of factors necessary to determine whether a removal action is necessary;
- Determination if a non-federal party is undertaking proper response;
- Determination of federal jurisdiction.

The FOSC shall determine whether a release governed by CWA Section 311 (c)(1), as amended by OPA, has occurred. If such a release of a CWA hazardous substance has occurred, the FOSC shall determine whether the release results in a substantial threat to the public health or welfare of the United States.

An RSE may be terminated when the FOSC or lead agency determines:

- No release has occurred.
- The source is neither a vessel nor a facility.
- The release does not involve a hazardous substance, pollutant, or contaminant that may pose an imminent and substantial danger to public health or welfare of the United States.
- Amount, quantity, and concentration released do not warrant federal response.
- The RP for the release or other person is providing appropriate response, and on-scene monitoring by the government is not required.
- The RSE is complete.
- The release is a situation specified in Section 300.400 (b)(1) through (3) of the NCP subject to limitations on response.

If natural resources are or may be injured by the release, the FOSC will notify and consult with the appropriate natural resource trustees.

In addition, the FOSC will determine whether remedial action is necessary.

### **300.415 Removal Actions**

The following factors shall be considered in determining appropriateness of a removal action:

- Actual or potential exposure to human populations, fish, and wildlife or food chain;
- Actual or potential contamination of drinking water supplies or sensitive ecosystems;
- Hazardous substance, pollutant, or contaminants in containers, drums, barrels, tanks, or other bulk storage containers that may pose a threat of release;
- Hazardous substance, pollutants, or contaminants in soils at or near the surface that may migrate;
- Weather conditions that may cause migration or release of hazardous substances, pollutants, or contaminants;
- Threat of fire or explosion;
- Availability of other federal, state, or local response mechanisms to respond to the release;
- Any other situation or factors that pose a threat to public health, welfare, or the environment.

If a planning period extends at least 6 months before initiation of on-site activities, an Engineering Evaluation/Cost Analysis (EE/CA) must occur. If environmental samples are to be collected, preplanning shall consist of the field sampling plan and quality assurance project plan in accordance with [Section 300.420](#) of the NCP. See [Section 300.415](#) of the NCP for the complete text and [Section 300.320](#) for additional guidance concerning removal actions.

### ***Training and Qualifications***

Response actions under the NCP by a lead agency, or by an RP, shall be consistent with provisions of 29 CFR 1910.120 for protection of workers' health and safety at the response site. This includes requirements for qualified workers trained in the areas of first responder operations, on-scene incident command, site-specific safety planning, and specialized training to manage hazardous substances. A minimum qualification for all individuals entering contaminated areas is operations and/or technical levels in accordance with 29 CFR 1910.120 and National Fire Protection Association (NFPA) 472, Standard for Professional Competence of Responders to Hazardous Materials Incidents. In addition, incident commanders shall be competent in incident command, including Incident Command System (ICS) 300 (Intermediate ICS for Expanding Incidents) and 400 (Advanced ICS Command and General Staff – Complex Incidents).

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## **SUBPART F STATE AND LOCAL INVOLVEMENT IN HAZARDOUS SUBSTANCE RESPONSE**

### **300.500 General**

Subpart F of the NCP addresses state involvement in hazardous substance response, and is incorporated herein by reference. ESF #10 requires close coordination between EPA and state counterparts in development and implementation of mission assignments for response activities.

### **300.505 EPA/State/Local MOA/MOU**

The federal, state, and local MOA/MOU may establish the nature and extent of EPA and state and local interaction during EPA-lead and state-lead or local-lead responses (including Indian Tribes). EPA shall enter into MOA/MOU discussions if requested by a state or local government.

Refer to the NCP, 40 CFR § 300.505 for a discussion of state MOUs.

### ***Regional MOUs/MOAs***

Various MOUs and Interagency Agreements (IAG) between RRT member agencies are listed in the RICP under [Annex VII](#), “Interagency Support Agreements.” A copy of the USCG/EPA MOA is in [Annex I](#) to this plan.

### **300.515 Requirements for State Involvement in Remedial and Enforcement Responses**

Section 104 (d)(1) of CERCLA authorizes EPA to enter into cooperative agreements or contracts with a state, political subdivision, or federally recognized tribe to carry out fund-financed response actions authorized under CERCLA, when EPA determines that the cooperating entity has capability to undertake such actions. See [Section 300.515](#) of the NCP for more information.

### **300.520 State Involvement in EPA/USCG-led Enforcement Negotiations**

EPA/USCG shall notify states of response action negotiations to be conducted by EPA/USCG with PRPs during each fiscal year.

The state must notify EPA/USCG of any such negotiations in which it intends to participate.

The state is not foreclosed from signing a consent decree if it does not participate substantially in the negotiations.

***State Involvement in Removal Actions***

For OPA fund reimbursement, the state must fulfill requirements established by the NPFC, including PRP determination and documentation requirements. EPA/USCG shall consult with a state on all removal actions to occur within that state.

## **SUBPART G TRUSTEES FOR NATURAL RESOURCES**

### ***Designation of Natural Resource Trustees***

CERCLA and OPA require designation of certain federal, state, and Indian Tribal officials to act on behalf of the public as trustees for natural resources that they manage or protect. As trustees, these officials are authorized to assess monetary damages for natural resources injured, lost, or destroyed as a result of a discharge of oil or release of hazardous substances. In addition, agencies are authorized to seek natural resource damages from the RP, and to devise and carry out restoration, rehabilitation, and replacement. Where more than one trustee has jurisdiction over a natural resource, these agencies are encouraged to coordinate and cooperate in carrying out the activities described herein.

RRT representatives from trustee agencies may also serve as contact points regarding agency policy on trustee resources.

### ***Definition of Natural Resources (Section 107 of CERCLA and Section 1006 of OPA)***

The term “natural resource” means land, fish, wildlife, biota, air, water, groundwater, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the United States, any state or local government, any foreign government, any Indian Tribe, or, if such resources are subject to a trust restriction on alienation, any member of an Indian Tribe.

### ***Notification and Consultation by FOSCs***

To minimize impacts on natural resources and assist trustees in carrying out their responsibilities, FOSCs are required to:

- Promptly notify tribal governments, as well as federal and state agencies designated as natural resource trustees, of actual or potential discharges or releases.
- Consult with trustees and other natural resource managers in determining such effects.
- Coordinate all response activities with the trustees and other natural resource managers in determining such effects.
- Make available to trustees documentation and information that can help the trustees identify actual or potential natural resource injuries.

- Consult with USFWS on all incidents and response activities that may affect federally listed threatened or endangered species, or their habitats. Conduct appropriate Section 7 Consultation as indicated in Section 6.4 of the FWSEP and the ESA MOA ([Annex V](#)).

The trustees, consistent with procedures specified in the FWSEP and the ESA MOA, shall provide timely advice on recommended actions concerning trustee resources potentially affected by a discharge of oil or release of hazardous substances. This may include providing assistance to the FOSC in identifying/recommending preapproved response techniques and in predesignating shoreline types and areas.

### **300.600 Designation of Federal Trustees**

The following federal officials have been designated by the President as trustees for natural resources within Region 7. (Note: Refer to [Appendix D.3](#) for RRT representatives' contact information.)

#### ***Secretary of the Interior***

The Secretary of the Interior's responsibilities include:

- NPS: National Parks, National Monuments, National Historic Sites, National Recreation Areas, Wild and Scenic Rivers, etc.;
- USFWS: National Wildlife Refuges, National Fish Hatcheries, Waterfowl Production Areas, migratory birds, threatened and endangered species, and anadromous fish;
- USBR Lands and waters managed or protected in association with USBR dams, reservoirs, and water conveyance systems;
- BLM: Public lands, federally owned minerals (underlying private, as well as public lands);
- BIA: Indian reservations and other lands or natural resources held in trust for an Indian Tribe (including off-reservation natural resources).

In cases of the United States acting on behalf of an Indian Tribe, the Secretary of the Interior also acts as trustee for natural resources for which an Indian Tribe would otherwise act as trustee.

Contact: DOI RRT Representative.

### ***Secretary of Agriculture***

The Secretary of Agriculture's responsibilities include:

- National Forests and National Grasslands.

Contact: USDA/Forest Service RRT representative.

### ***Secretary of Defense***

The Secretary of Defense's responsibilities include:

- Military Lands.

Contact: DoD U.S. Army RRT representative.

- USACE Project Lands.

Contact: USACE RRT representative.

### ***Secretary of Energy***

The Secretary of Energy's responsibilities include:

- DOE lands and facilities.

Contact: DOE RRT representative.

### **300.605 State Trustees**

Pursuant to Section 1006 (b) of OPA, 33 U.S.C. § 2706 (b), the Governor of each state shall designate state and local officials who may act on behalf of the public as trustee for natural resources and shall notify the President of the designation. State trustees shall act on behalf of the public as trustees for natural resources within the boundary of a state or belonging to, managed by, controlled by, or appertaining to such state. For purposes of this Subpart G, the definition of the term "state" does not include Indian Tribes.

State trustees for natural resources within Region 7 are:

***Iowa***

Director of IDNR.

***Kansas***

Secretary of KDHE.

Note: The Director of the Kansas Division of Environment is the designated contact for trustee natural injury determinations pursuant to OPA, and for emergency trustee notifications under the NCP and this RICP.

***Missouri***

Director of MoDNR.

***Nebraska***

Director of NDEE.

**300.610 Indian Tribes**

The Tribal Chair or head of tribal governing bodies, or a person designated by tribal officials, shall act on behalf of the Indian Tribe as the trustee for the natural resources belonging to, managed by, controlled by, or appertaining to such Indian Tribe, or held in trust for the benefit of such Indian Tribe (if such resources are subject to a trust restriction on alienation). Such officials are authorized to act under circumstances of injury to, destruction of, loss of, or threat to natural resources as a result of a release of a hazardous substance.

[Appendix D.5](#) describes Region 7 protocols for maintaining emergency response contacts for federally recognized tribes that are headquartered or own significant property within the region. EPA Region 7 has established processes to review emergency contacts lists at quarterly meetings of the RTOC and forward changes to the appropriate EPA personnel.

### **300.615 Function of Trustees**

See [Section 300.615](#) of the NCP.

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## **SUBPART H PARTICIPATION BY OTHER PERSONS**

### **300.700 Activities by Other Persons**

Participation by private parties in both planning and response is encouraged. PRPs are encouraged to undertake response actions in an adequate and timely manner, based on judgment of the FOSC.

Landowners are also encouraged to participate in planning and response. The landowner is a valuable resource due to his or her local knowledge. The landowner, to the extent practical and based on the FOSC's judgment, may be included in planning and response activities, under direction of the FOSC. Landowners affected by a spill have jurisdiction over their lands and warrant special consideration by the responding agency or UC. If an incident poses or could pose an imminent threat to human health and/or the environment, it is in the best interest of the landowner to provide access to an FOSC.

In addition, Section 90 of OPA authorizes filing of claims against the OSLTF by other persons. To file a claim, contact the NPFC, USCG Stop 7605, 2703 Martin Luther King Jr Avenue SE, Washington, D.C. 20593, telephone (202) 795-6003.

#### ***Responsible Party Policy***

The RP has primary responsibility for cleanup of an oil discharge or release of hazardous substances. Section 311 (c)(3)(B) of CWA, 33 U.S.C. § 1321 (c)(3)(B) requires a facility owner or operator participating in removal efforts to act in accordance with the NCP and all other applicable response plans. Section 311 (j)(5)(D) of the CWA requires that these response plans shall:

- (i) Be consistent with the requirements of the NCP and this RICP;
- (ii) Identify the qualified individual having full authority to implement removal actions, and require immediate communications between that individual and the appropriate federal official and the persons providing personnel and equipment pursuant to clause (iii);
- (iii) Identify, and ensure by contract or other means approved by the President, the availability of private personnel and equipment necessary to remove to the maximum extent practicable a WCD (including a discharge resulting from fire or explosion), and to mitigate or prevent a substantial threat of such a discharge;

- (iv) Describe the training, equipment testing, periodic unannounced drills, and response actions of persons on the vessel or at the facility to be carried out under the plan to ensure the safety of the vessel of the facility and to mitigate or prevent the discharge, or substantial threat of a discharge;
- (v) Be updated periodically; and
- (vi) Be resubmitted for approval of each significant change.

All owners or operators of a vessel or facility who are required by OPA to submit a response plan shall do so in accordance with applicable regulations. Facility and vessel response plan regulations, including plan requirements, are in 33 CFR Part 154 and 40 CFR Part 112, respectively. Prior to approval, facility and vessel response plans shall be reviewed for consistency with this RICP and appropriate subarea contingency plans.

As defined in OPA, each RP for a vessel or a facility from which oil is discharged, or which poses a substantial threat of a discharge, into or upon the navigable waters or adjoining shorelines or the Exclusive Economic Zone, is liable for removal costs and damages as specified in Section 311 (f) of the CWA, 33 U.S.C. § 311 (f). Any removal activity the RP undertakes must be consistent with the NCP and this RICP, as well as applicable response plan required by OPA. If directed by the FOOSC at any time during the removal activities, the RP must act accordingly.

**SUBPART I      ADMINISTRATIVE RECORD FOR SELECTION OF RESPONSE  
ACTION**

Subpart I of the NCP, [40 CFR §§ 300.800 to 300.825](#), addresses administrative record keeping for selection of response actions, and is incorporated herein by reference to the extent that it applies to emergency response.

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## **SUBPART J      CHEMICAL COUNTERMEASURES**

On December 11, 2023, the [NCP Subpart J final rule](#), as amended, became effective. The rule amends product listing and authorization of use requirements for chemical and biological countermeasures (CBC) when responding to oil spills, and supplements the 2021 Subpart J final action by establishing new provisions for environmental monitoring in response to major discharges and to certain dispersant use situations. The new rule also revises protocols for CBC efficacy and toxicity testing required for listing on the [NCP Product Schedule](#), and establishes the [NCP Sorbent Product List](#).

**Notes:** (1) More information on the use of CBCs is available in [Annex IV](#), which will be further revised during the next annual update of this RICP and (2) in cases where conflicts between 2023 and 2021 Subpart J rules appear to exist, the 2023 NCP Subpart J final rule takes primacy.

Subpart J of the NCP, [40 CFR §§ 300.900 through 300.970](#), addresses use CBCs, addresses use CBCs, and is incorporated herein by reference. The terms CBCs and chemical agents are used interchangeably in this section and throughout this RICP. As defined by the Section 300.5 of the NCP, chemical agents are elements, compounds, or mixtures that coagulate, disperse, dissolve, emulsify, foam, neutralize, precipitate, reduce, solubilize, oxidize, concentrate, congeal, entrap, fix, make the pollutant mass more rigid or viscous, or otherwise facilitate mitigation of deleterious effects or removal of the pollutant from the water. Chemical agents include biological additives, dispersants, sinking agents, miscellaneous oil spill control agents, and burning agents, but do not include sorbents. Sinking agents shall not be used in Region 7.

Section 311 (j)(4)(B)(iii) of the CWA requires that each AC work with state, local, and tribal officials to expedite decisions regarding use of dispersant and other mitigating substances and devices. The trustees, consistent with procedures specified in the FWSEP and the ESA MOA, shall provide timely advice on recommended actions concerning trustee resources potentially affected by a discharge of oil. This may include providing assistance to the FOSC in identifying/recommending preapproved response techniques and in predesignating shoreline types and areas.

In general, Region 7 RRT policy does not allow use of CBCs on releases or discharges that threaten navigable waters. This stance is necessary to protect fragile aquifers, sensitive ecosystems, and the many surface and subsurface water intakes (potable and non-potable) in Region 7. However, the Region recognizes that in some cases CBCs may have some limited applicability.

There are no preapproved uses for CBCs within Region 7, excluding use on roadway spills as described further in [Annex IV](#) to this RICP. Any entity interested in using CBCs must follow the provisions defined in this RICP and [Subpart J of the NCP](#). Only products listed on the NCP Product Schedule are allowed. However, products not included on the NCP Product Schedule, as well as those products included on the Schedule, may be authorized for use by the FOSC without first consulting with natural resource trustees and obtaining concurrence of the EPA RRT representative or the state RRT representative, when, in the judgement of the FOSC, use of the product is necessary to prevent or substantially reduce a hazard to human life (pursuant to [40 CFR § 300.910 \[d\]](#)). If a product is approved under these conditions, and once the threat to human health has subsided, the FOSC shall inform the following of use: EPA RRT representative and, as appropriate, RRT representatives from the affected states, and when practicable, the natural resource trustees.

Any/all other suggested use of CBCs, other than as described in the preceding paragraph, must have prior RRT authorization. Approval must be obtained on a case-by-case basis. As defined in 40 CFR § 300.910 (b), the EPA representative to the RRT and, as appropriate, the RRT representatives from the affected states with jurisdiction over the navigable waters threatened by the release or discharge, are the individuals authorized to grant the approval. If practicable, the DOI and/or DOC natural resource trustees and other federal and state land management agencies will be consulted when consideration of use of CBCs occurs.

### ***NCP Product Schedule***

In accordance with Subpart J, EPA is to develop and maintain a schedule of dispersants and other chemical or biological products that may be authorized for use on oil discharges. This schedule is called the NCP Subpart J Product Schedule, and more information is available in Annex IV to this RICP. Difficulties or delays in obtaining the schedule or receiving specific

information/guidance regarding products on the schedule should be communicated to the EPA's Emergency Response Division and the NRT Chair. The NCP Subpart J Product Schedule and Technical Notebook describing recommended application procedures for chemical and bioremediation products are available as follows:

- [NCP Subpart J Product Schedule \(December 2023\)](#)
- [NCP Subpart J Technical Notebook \(December 2023\)](#)
- EPA Region 7 Hotline: (913) 281-0991.

This section will be expanded when the Region 7 RRT is made aware of use of dispersant technology that (1) may be applicable within Region 7, (2) has been tested by case studies, and (3) has been documented during incidents at remote, controlled sites.

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## **APPENDIX A.1**

# **FISH AND WILDLIFE AND SENSITIVE ENVIRONMENTS PLAN**

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## FISH AND WILDLIFE AND SENSITIVE ENVIRONMENTS PLAN

### APPENDIX A.1 TO REGION 7 INTEGRATED CONTINGENCY PLAN

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## 1.0 PURPOSE

Oil or hazardous substances spilled into the environment may have a wide range of ecological consequences. The severity of the consequences varies depending on the material spilled and the ability of the ecosystem to degrade or resist the spilled product. Reducing the overall ecological impact of a spill event and the impacts associated with response activities is the goal of this Fish and Wildlife and Sensitive Environments Plan (FWSEP, also referred to as “annex”).

The purpose of this annex is to provide the Federal On-Scene Coordinators (FOSC) in U.S. EPA Region 7 (Region 7) with the information he/she needs to identify sensitive environments and provide appropriate response strategies for limiting the overall negative environmental effects of a spill. The annex will also aid in the development of Facility Response Plans required by 40 CFR 112.20. The FWSEP also assists FOSCs and Incident Commanders in protecting threatened and endangered species and their supporting habitats from the effects of response measures, and fulfilling their consultation responsibilities under the Endangered Species Act, implementing regulations, and the *Interagency Memorandum of Agreement Regarding Oil Spill Planning and Response Activities under the Federal Water Pollution Control Act’s National Oil and Hazardous Substances Pollution Contingency Plan and the Endangered Species Act* (ESA MOA, Annex V).

## 2.0 SCOPE

The Region 7 FWSEP develops a general overview of the sensitive areas and provides the State On-Scene Coordinators (SOSC) and FOSCs with information to assist in the sensitive environment identification process. Deciding on response techniques before a spill occurs is imperative to provide for a coordinated, immediate and effective response. The FWSEP aids in the selection of the appropriate spill protection, recovery and cleanup techniques that will help to minimize the ecological impacts of a spill.

The task of identifying all the environmentally sensitive areas in Region 7 and prioritizing them is an enormous undertaking, and will be done gradually. While the FWSEP helps to identify sensitive environments that could be impacted by spills into water bodies, sensitive environments identified in the FWSEP and RICP should not be considered comprehensive or definitive.

The FWSEP also establishes procedures and policy for meeting the objectives set forth in the National Contingency Plan (NCP); and should be used to aid responders and planners in prioritizing and evaluating response techniques for spills in various freshwater environments and shoreline habitats. This annex aids the Area Committee in identifying special areas of concern. Those special areas of concern will be examined in detail in the Subarea planning phase of the Regional Integrated Contingency Plan (RICP) development. The FWSEP also assists FOSCs and Incident Commanders in protecting threatened and endangered species and their supporting habitats from the effects of response measures, and fulfilling their consultation responsibilities under the Endangered Species Act, implementing regulations, and the Interagency Memorandum of Agreement Regarding Oil Spill Planning and Response Activities under the Federal Water Pollution Control Act's National Oil and Hazardous Substances Pollution Contingency Plan and the Endangered Species Act (ESA MOA, Annex V).

### **3.0 OBJECTIVES**

The National Contingency Plan (40 CFR 300.210(c)(4)(I)) delineates the objectives of this annex. The objectives have been organized into four general sections:

#### **3.1 IDENTIFY AND ESTABLISH PRIORITIES FOR RESOURCES AT RISK**

Natural resources, other sensitive resources, and appropriate resource trustees are identified. Agencies to be notified and consulted in establishing incident-specific priorities for the protection of these resources are provided. Sensitive resources identified include environmentally sensitive lands, freshwater environments, and areas of economic significance (Section 4.0).

#### **3.2 DETERMINE ENVIRONMENTAL EFFECTS OF RESPONSE AND COUNTERMEASURES**

The probable impacts of various response methods on general environments and habitats are provided. Methods for determining and approving the appropriate response techniques for specific environments and habitats and monitoring the effectiveness of response activities are outlined (Section 5.0).

### **3.3 IDENTIFY FISH AND WILDLIFE RESPONSE CAPABILITIES**

State and federal response capabilities and the contacts for permitting wildlife rescue and rehabilitation are outlined. Prearranging and acquiring the appropriate response equipment, personnel and mutual aid agreements and defining the OSHA training requirements for volunteers assigned to fish and wildlife rescue are also discussed (Section 6.0).

### **3.4 EVALUATE THE INTERFACE OF THE RICP WITH NON-FEDERAL PLANS**

The compatibility of this annex with non-federal response plans on issues affecting fish, wildlife, their habitats and sensitive environments is evaluated (Section 7.0).

## **4.0 PRIORITIZATION OF RESOURCES AT RISK**

To ensure that proper measures are taken to minimize the impacts of a spill on ecological and economic resources, the FOSC/SOSC or Responsible Party must be aware of sensitive environments and/or important resource areas. Identifying sensitive areas should be accomplished before a spill event occurs. Environmentally sensitive areas were identified by the various Natural Resource Trustees and other natural resource management agencies. Response strategies vary depending on the material spilled and the spill location. It is critical that responders realize that an immediate, but improper response, may be more damaging than waiting for the mobilization of a proper response. Critical to choosing an appropriate response is understanding the aquatic environments and habitats, and their sensitivities. It is also important to recognize the value and importance of any historic properties/sites that may be affected by response activities.

### **4.1 NOTIFICATION OF AND CONSULTATION WITH NATURAL RESOURCE TRUSTEES**

Prompt notification of and consultation with the natural resource trustees and other natural resource management agencies is imperative so that their expertise can be utilized in identifying and protecting sensitive environments. Figure 1 assist with the protection priorities.

Pursuant to Subpart G of the National Contingency Plan, the following agencies have been designated as trustees for natural resources:

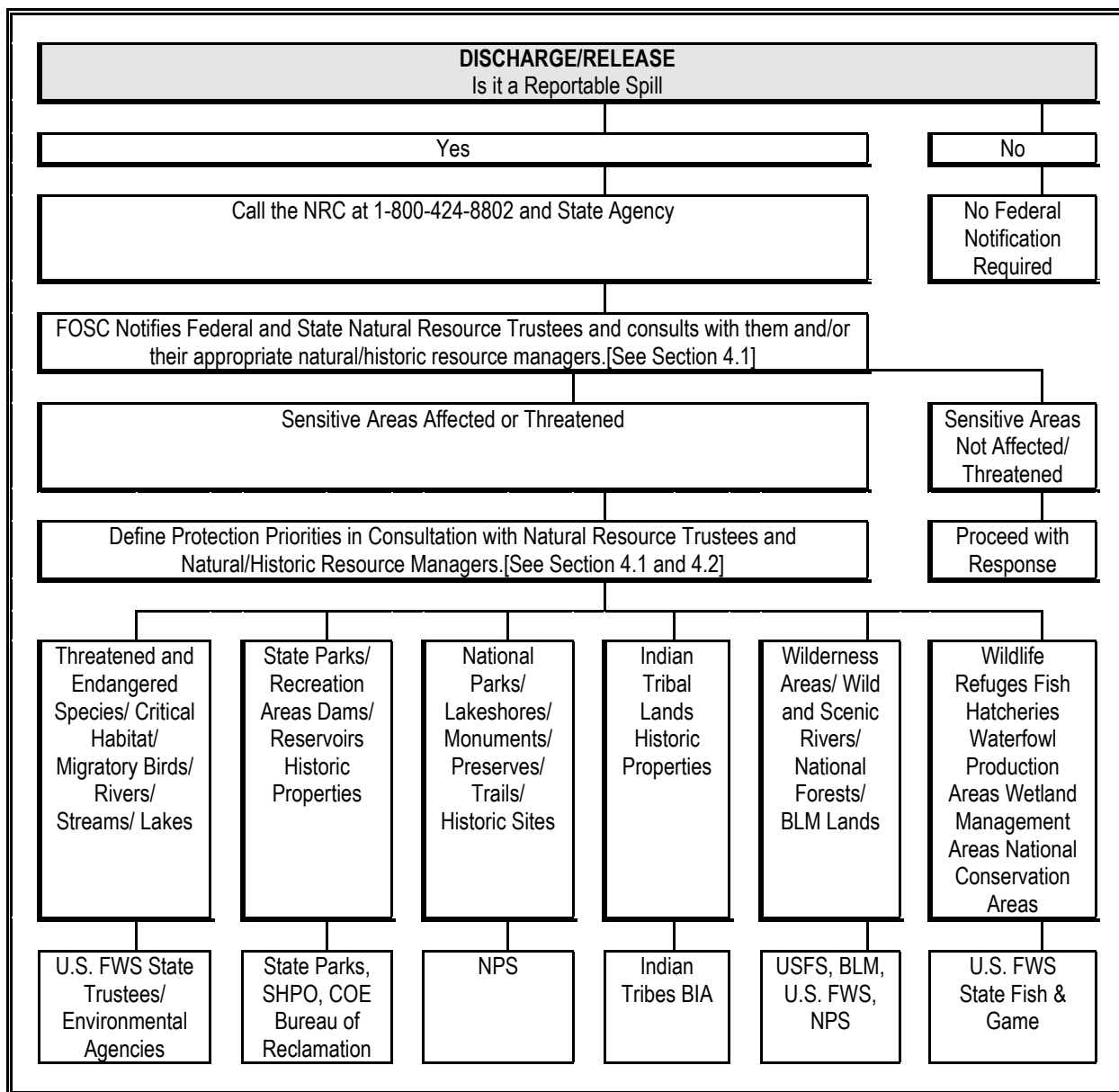
- Department of the Interior
- Department of Agriculture, Forest Service
- Department of Defense
- Department of Energy
- Kansas Department of Health and Environment
- Nebraska Department of Environment and Energy
- Iowa Department of Natural Resources
- Missouri Department of Natural Resources

Appropriate contacts within these agencies are included in Appendix D.



FIGURE A.1.1

PROTECTION PRIORITIES MECHANISM



## **4.2 CONSULTATION WITH NATURAL RESOURCE MANAGERS**

In addition to the designated natural resource trustees, there are numerous federal and state agencies with land and resource management responsibilities and/or expertise which need to be consulted regarding removal actions:

- Department of the Interior
  - U.S. Fish and Wildlife Service (USFWS)
  - National Park Service
  - Bureau of Reclamation
  - Bureau of Land Management
  - Bureau of Indian Affairs
- Department of Agriculture
  - Forest Service
- State of Iowa
  - Department of Natural Resources
- State of Kansas
  - Department of Health and Environment
  - Kansas Department of Wildlife and Parks
- State of Nebraska
  - Department of Environment and Energy
  - Game and Parks Commission
- State of Missouri
  - Department of Natural Resources
  - Department of Conservation

Appropriate contacts within these agencies are included in Appendix D.

## **4.3 REGIONAL DESCRIPTION AND SENSITIVE AREAS**

There are many wildlife refuges, hatcheries, wild and scenic river reaches, waterfowl production areas, wetland management areas, national and state parks, monuments, preserves, recreational areas, primitive archaeological and historical sites, heritage program areas and other important resources located on or near the rivers and lakes of Region 7.

Appendix A divides the Region by state and lists threatened and endangered species, critical habitats, environmentally sensitive areas, recreation areas, public and private water intakes. The Natural Resource Trustee or other contact is listed in Appendix D, and the phone numbers for contacts who should be notified and consulted. The appendix can be used by responders to quickly identify the location of sensitive areas.

#### **4.3.1 Threatened and Endangered Species**

Threatened and endangered (T&E) species inhabit or are located near, almost every major body of water in Region 7. The U.S. Fish and Wildlife Service (USFWS) provides an updated list of T&E species by county for the Region annually.

Additional information on compliance with the Endangered Species Act, implementing regulations, and the ESA MOA is provided in Section 6.4.

#### **4.3.2 Freshwater Environments**

Freshwater environments can be divided into three broad categories: standing water, such as lakes and ponds; and flowing water, which includes streams and rivers; and wetlands.

##### ***Lakes and Ponds***

The near shore areas of standing freshwater environments usually support large quantities of various animals and plants. Due to the water's relative stillness, spilled oil would tend to collect and not be dispersed by wind, waves or currents. Lakes, ponds and their dependent populations are, therefore, more vulnerable to an oil spill than freshwater environments that are constantly moving, such as streams and rivers.

##### ***Streams and Rivers***

Oil entering a stream or river will typically move downstream. Oil entering slower flowing streams tends to remain on the surface while oil discharged to a high velocity turbulent stream disperses throughout the entire stream water column. As a result of the turbulent agitation, oil may become trapped in sediment along the stream bed, resulting in increased fatalities of benthic organisms.

Stream reaches can be subdivided into three categories: low gradient; moderate gradient; and high gradient.

- Low gradient portions of a stream are characterized by: meandering channels; moderate currents; wide zones of associated riparian vegetation; sand bars; intermediate oil residence time; numerous collection sites; and restricted mixing into the water column.
- Moderate gradient portions of a stream are characterized by: intermittent rapids; moderately wide channels; associated riparian vegetation; brisk currents; sand and gravel bars; short oil residence time; few collection sites; and significant mixing into the water column.
- High gradient portions of a stream are characterized by: numerous rapids; narrow associated riparian vegetation; strong currents; coarse gravel sediments; short oil residence time; no collection sites; and intense mixing into the water column.

### ***Wetlands***

Wetlands are highly sensitive to oil spills. Wetlands such as freshwater swamps, marshes and prairie potholes act as natural hatcheries, nesting areas, food sources, and watering areas for terrestrial and aquatic wildlife. Therefore, they are crucial areas for wildlife support.

The Region's seasonality is a major consideration in preparing and planning for a response. Ice and snow in the winter, fluctuations of river and stream water levels, and the migratory patterns of wildlife all need to be addressed.

### ***Classification***

The classification of environmentally sensitive areas, their administering agencies and the statutory authority include, but are not limited to:

- **Critical Areas under the Clean Lakes Program** [EPA, States, Section 314 Clean Water Act, (33 USC '1324)];
- **Critical Habitats for Federal Designated Endangered or Threatened Species** [USFWS, Endangered Species ACT, (16 USC '1531, et seq.; 50 CFR 424.02)];
- **Designated Federal Wilderness Areas** [BLM, USFS, NPS, USFWS, National Wilderness Preservation Act (16 USC '1131, et seq.)];
- **Federal Designated or Proposed Endangered or Threatened Species** [USFWS, Endangered Species Act (16 USC '1531, et seq.; 50 CFR 424.02)];

- **Federal and State Designated Wild and Scenic Rivers** [BLM, USFS, NPS, USFWS, states, National Wild and Scenic Rivers Act, (16 USC "1271-1287)];
- **National Conservation Areas** [USFWS, Refuge Recreation Act, (16 USC ' 460k, et seq.)];
- **National Wildlife Refuges** [USFWS, National Wildlife Refuge Administration Act of 1966 (16 USC " 668dd-668ee) or comparable state law];
- **National Parks, National Monuments, National Lakeshore Recreational Areas** [NPS, Act of August 25, 1916 (16 USC '1, et seq.)];
- **Waterfowl Management Areas** are designated for the protection of habitat important to waterfowl and are designated within the states' **Wildlife Management Areas**;
- Other areas of concern are wetlands which generally include swamps, marshes, bogs and similar areas. Wetlands are defined in 40 CFR 230.3 and by USFWS. **Waterfowl Production Areas** administered by the USFWS are crucial habitats for waterfowl production.

[Relevant state statutes to be added.]

#### 4.4 AREAS OF ECONOMIC SIGNIFICANCE

Responders need to identify and protect areas of economic importance. Public drinking water intakes, industrial water users, aquaculture sites and agricultural water users could be adversely impacted by a discharge of oil or other hazardous materials. Water intakes in shallow lakes and rivers are at greatest risk to an oil spill. Timely response procedures which identify water users and notify them of an on-coming spill is imperative. With prompt notification, water intakes/diversions can be shut down or boomed off. Water users other than municipal drinking water intakes are still being identified.

Tourism is also of importance with numerous important fishing streams, boating and canoeing areas, and other recreational activities associated with the Region's rivers and lakes. Identifying and protecting these economic resources is critical to response considerations.

#### 4.5 AREAS OF HISTORIC/ARCHEOLOGICAL SIGNIFICANCE

As required under the *Programmatic Agreement on Protection of Historic Properties During Emergency Response under the National Oil and Hazardous Substances Contingency Plan (Programmatic Agreement)*, plans shall ensure the inclusion of information on consideration of

historic properties. This should be developed in consultation with the appropriate parties for the immediate and effective protection of, and the minimization of risk of damage to historic properties, that may be jeopardized by a discharge. Specific requirements are outlined in Annex VI.

## **5.0 DETERMINING THE ENVIRONMENTAL EFFECTS OF RESPONSE AND COUNTERMEASURES**

Decisions on appropriate response and countermeasures should take into account the relative impact of response methods on sensitive areas. Using the information collected on downstream sensitive areas and spill response guidelines, informed decisions on appropriate protective measures can be made. When deciding on a method of response, the most important consideration should be the effectiveness of protecting habitats and removing spills of oil or other hazardous materials.

### **5.1 IMPACTS OF RESPONSE METHODS ON SENSITIVE ENVIRONMENTS AND HABITATS**

The American Petroleum Institute and the National Oceanic and Atmospheric Administration (API/NOAA) collaborated on a study for Inland Oil Spills and finalized their findings in May of 1994. This is the first comprehensive guidance on responding to freshwater inland spills. API/NOAA classified specific oil response methods and their relative impacts on given environments and habitats. Physical, chemical and biological response methods are discussed and response impacts on the environment are classified as low impact, moderate impact, high impact and ineffective or inapplicable.

Table A.1.1, taken from the API/NOAA document, includes the findings for response method impacts on water environments and shoreline habitats.

## **5.2 APPROPRIATE RESPONSE FOR SPECIFIC SENSITIVE ENVIRONMENTS AND HABITATS**

Many of the issues dealing with appropriate response methods will be addressed in detail during the Subarea Planning. Response sections of Subarea plans will include:

- Identifying specific areas of concern throughout the region and pre-planning for the products most commonly spilled and the locations where spills most commonly occur;
- Response methods for habitats and sensitive areas using the API/NOAA guidance, Options for Minimizing the Environmental Impacts of Freshwater Spill Response;
- Pre-approving appropriate removal actions including the use of chemicals and dispersants per 40 CFR Subpart J - Use of Dispersant and Other Chemicals, 300.910;
- Locating access points, staging areas and boom anchor locations.

**[Note - Additional guidance on response techniques is under development.]**

**TABLE A.1.1**

**RELATIVE IMPACT OF RESPONSE METHODS IN THE ABSENCE OF OIL**

RESPONSE METHOD	WATER ENVIRONMENT				SHORELINE HABITAT							
	OPEN WATER	SMALL LAKES/PONDS	LARGE RIVERS	SMALL RIVERS/STREAMS	BEDROCK	MAN-MADE	SAND	VEGETATED SHORES	SAND AND GRAVEL	GRAVEL	MUD	WETLANDS
<b>PHYSICAL RESPONSE METHODS</b>												
Natural Recovery	–	–	–	–	–	–	–	–	–	–	–	–
Booming	L	L	L	L	–	–	–	–	–	–	–	–
Skimming	L	L	L	L	–	–	–	–	–	–	–	–
Barriers/Berms	–	–	–	H	–	–	–	–	–	–	–	–
Physical Herding	L	L	L	L	–	–	–	–	–	–	–	–
Manual Oil Removal/Cleaning	L	H	L	M	L	L	L	H	M	M	H	H
Mechanical Removal	L	H	H	H	–	M	M	H	M	M	H	H
Sorbents	L	L	L	L	L	L	L	L	L	L	M	M
Vacuum	L	L	L	L	L	L	L	M	L	L	H	M
Debris Removal	–	L	L	L	L	L	L	L	L	L	M	M
Sediment Reworking	–	H	–	H	–	–	M	H	M	M	H	H
Vegetation Removal	L	H	M	H	–	–	–	H	–	–	–	H
In-situ Burning	L	M	L	M	L	L	M	M	M	M	H	M
Flooding	–	–	–	–	L	L	L	L	M	L	L	L
Low-Pressure, Cold-Water Flushing	–	–	–	–	L	L	M	L	L	M	H	L
High-Pressure, Cold-Water Flushing	–	–	–	–	L	L	H	H	H	H	H	H
Low-Pressure Hot-Water Flushing	–	–	–	–	M	L	H	H	M	M	H	H
High Pressure, Hot-Water Flushing	–	–	–	–	M	L	H	H	H	H	H	H
Steam Cleaning	–	–	–	–	M	L	H	H	M	M	H	H
Sand Blasting	–	–	–	–	H	M	–	–	–	–	–	–
<b>CHEMICAL RESPONSE METHODS</b>												
Dispersants	L	H	L	H	–	–	–	–	–	–	–	–
Demulsifiers	L	L	L	M	–	–	–	–	–	–	–	–
Visco-Elastic Agents	L	M	L	L	–	–	–	–	–	–	–	–
Herding Agents	L	M	L	H	–	–	–	–	–	–	–	–
Solidifiers	L	L	L	L	L	L	M	M	M	L	M	M
Chemical Shoreline Pretreatment	–	–	–	–	I	I	I	I	I	I	I	I
Shoreline Cleaners	–	–	–	–	M	L	M	I	M	M	M	I
<b>BIOLOGICAL RESPONSE METHODS</b>												
Nutrient Enrichment	L	M	L	L	L	L	L	L	L	L	L	L
Natural Microbe Seeding	I	I	I	I	I	I	I	I	I	I	I	I

Notes:

Impacts address generic characteristics of response techniques and do not consider the impact of oil

- Ineffective or inapplicable to the environment/habitat
- L Low impact
- M Medium impact
- H High impact
- I Insufficient information available to evaluate impact.



### **5.3 MONITORING RESPONSE EFFECTIVENESS - MONITORING PLANS**

An oil spill is dynamic and cleanup efforts must change as conditions change. Over time, the oil will spread, move downstream, and oil can chemically change due to weathering. Climatic and geographic conditions may also change. A continual monitoring program to ensure the maximum removal of oil and protection of the environment throughout the duration of the cleanup is essential.

The FOSC/SOSC, in consultation with the natural resource trustees and the Responsible Party, will monitor the effectiveness of response activities in protecting sensitive habitats and removing discharges of oil or releases of hazardous substances. The FOSC/SOSC will consult with natural resource trustees and natural resource agency managers regarding the need for and methods of an incident-specific long-term monitoring plan. Efforts to control, contain and clean up the oil typically involve a number of containment and recovery methods. These methods may include booms, barriers, skimmers, sorbents, chemical agents, and manual recovery. As each of these methods has limitations associated with them, continued monitoring is necessary to ensure a successful cleanup. Monitoring will also be necessary to ensure that ecological impacts associated with the response actions do not cause more harm than good. Monitoring activities may include visual observation, sampling, data collection and evaluation, and replacement of saturated or defective material. Consultation with the natural resource agencies is essential to minimize injury to fish and wildlife and their habitats or other sensitive environments.

#### **5.3.1 Monitoring Plan Outline**

Section 300.210(E) of the NCP requires that the FWSEA provide monitoring plan(s) to evaluate the effectiveness of different countermeasures or removal actions in protecting the environment. This is an outline for such plans. Specific plans for each response need to be developed in consultation with natural resource trustees and natural resource agency managers.

##### **5.3.1.1 Objectives and Scope**

Determine the effectiveness of the selected countermeasures or removal actions in counteracting the effects of the discharge or release. Evaluate the environmental impact of these activities.

### **5.3.1.2 Monitoring Plan Design**

#### **5.3.1.2.1 Monitoring Intensity Levels**

The intensity of monitoring efforts may be adjusted to the intensity of the response. Field activities consisting of reconnaissance, environmental parameters assessment, sampling and documentation efforts, and laboratory activities should be conducted on a scale appropriate to the response.

#### **5.3.1.2.2 Selection of Treated and Untreated Sites**

Treated and untreated (or control) sites should exhibit similar chemical and physical characteristics to support their comparability. The following criteria should be considered: (1) environmental parameters, (2) physical habitat and geological morphology, and (3) degree of contamination with the released substance and probability of further contamination.

#### **5.3.1.3 Monitoring Parameters and Collection Frequency**

Sampling at each site, water depth (as appropriate), and time should be performed in triplicate. The size of samples collected should be based on the requirements of the analytical methods to be used for their analysis.

#### **5.3.1.4 Data Quality Requirements and Assessments**

All data collection activities must be planned and conducted to produce data of known and acceptable quality. To help ensure that these objectives are met, all contractors performing work as part of the monitoring effort must submit a quality assurance plan. Parameters for defining data quality include appropriateness of analytes, detection limits, precision, accuracy, representativeness, comparability, and completeness. Representativeness and comparability should be designed into the monitoring plan through provisions for replicate sampling from remediated and control areas and the use of standard, approved methods for sampling and laboratory analyses.

#### **5.3.1.5 Sample Custody Procedures**

Accurate identification and proper control of samples is important to help ensure the acceptability and usability of the resulting analytical data. Having standard sample custody

procedures is particularly important where the individuals performing sample collection may vary and where individuals collecting samples will not be the ones analyzing the samples. Where the monitoring program is conducted by a contractor, the contractor should designate a sample custodian who will ensure tracking of samples and that custody procedures are properly followed.

#### **5.3.1.6 Sampling and Analytical Methods**

All sampling and laboratory analyses should be developed in consultation with natural resource trustees and natural resource managers and should follow EPA or other approved methods unless otherwise stipulated or requested by the FOSC.

#### **5.3.1.7 Response Organization and Resource Requirements**

The decision to implement a monitoring plan is made in accordance with the NCP and the Region 7 RICP. A project manager, under the direction of the FOSC, is responsible for implementing the plan.

##### **5.3.1.7.1 Project Manager**

Specific responsibilities of the project manager include: obtaining approval from the FOSC for the monitoring plan, assembling teams to perform observations and sampling as appropriate, coordinating activities with the FOSC to ensure operations do not interfere with response operations, naming a sample custodian to handle sample transfers and chain of custody concerns, ensuring representation from each RRT member agency that wishes to participate, ensuring consultation with the natural resource trustees and natural resource managers, ensuring and documenting data quality, and ensuring the preparation and submission of all required reports. Other personnel required will be dependent on the size of the spill and of the monitoring effort.

##### **5.3.1.7.2 Equipment Requirements**

Equipment requirements will be determined by the scope of the monitoring effort. However, sufficient equipment to complete required sampling and photo documentation must be available.

#### **5.3.1.8 Data Validation**

All data will be subject to a thorough check by the FOOSC and the monitoring Project Manager, or their designated representative, for errors in transcription, calculation, or computer input. In addition, the Project Manager will review all incident logs, sample logs, and data forms to ensure that requirements for documentation and data quality assessment have been met.

#### **5.3.1.9 Performance and System Audits**

To help ensure that work is being performed - whether by contractor, EPA, or state personnel - is progressing in accordance with the monitoring plan and specified objectives and procedures, the FOOSC, through the monitoring project manager, maintains the right to conduct performance or system audits of field and laboratory collection activities. The categories of audits are described below:

Management System Reviews -- Evaluate the Quality Assurance Program of an organization, such as a firm contracted to conduct a monitoring project or a laboratory sample analyses. The purpose of this review is to verify whether the quality assurance management procedures stated by the contractor are in place prior to a contract award.

Data Quality Audits -- Evaluate a data set, or all data sets, of a particular project, by comparing the data set against specified data quality requirements for that data set.

Technical System Audits -- Evaluate the actual environmental measurement data-collection systems and their associated quality control systems. These audits involve on-site auditing of field sampling activities, field measurement activities, and laboratory analytical procedures.

Performance Audits -- Evaluate analytical methods and procedures of a laboratory. These audits are conducted by submitting performance evaluation samples to a laboratory for analysis. The samples should contain specific pollutants in known matrices whose concentration and identity are unknown to the testing laboratory.

#### **5.3.1.10 Documentation and Reporting**

During the course of response activities and accompanying monitoring efforts, the following reports should be prepared and submitted to the FOSC:

Activity reports - Provide descriptions of the response activity area, weather, unique observations, and activities undertaken, as well as the names, affiliations and signatures of persons on site. Activity reports should be prepared whenever activities on a site are undertaken.

Analytical reports -- Provide laboratory analysis results of environmental and control samples. Analytical reports should be prepared and submitted by the analytical lab within 10 days after receipt of environmental samples for analysis.

After action report -- Provides a description of the overall bioremediation activity and accompanying monitoring effort, including results of both field and laboratory activities.

#### **5.3.1.11 Revising Plans and Procedures**

Monitoring plans should include provisions for modifications, including additional consultation with natural resource trustees and natural resource managers.

### **6.0 FISH AND WILDLIFE RESPONSE CAPABILITIES**

In addition to consultation and coordination with natural resource trustees and other natural resource management agencies during the pre-spill planning phase to identify and understand potential natural resource concerns, consultation and coordination with these agencies during the response is also essential. Fish and wildlife response capabilities include:

#### **6.1 TECHNICAL EXPERTISE AND ASSISTANCE**

During a response, natural resource trustees and managers will provide technical assistance and expertise on potential effects of oil on fish and wildlife and their habitats or other sensitive environments that can be found in the impacted area. They are familiar with the area or habitats affected and are able to provide recommendations on the best locations for staging areas, access points, or anchor locations. They will recommend specific habitats where protective measures should be taken and provide advice on response actions to be taken. They can assist in the

development of a monitoring plan and subsequent collection of data. In addition, U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) Wildlife Services has extensive operational and technical capabilities to assist with proper humane capture, handling, hazing, transport, and other issues that typically arise in spill situations. Finally, the U.S. Fish and Wildlife Service and the state wildlife agency will direct or provide oversight for the protection, rescue, and rehabilitation of fisheries and wildlife.

## **6.2 WILDLIFE PROTECTION**

When an oil spill occurs, natural resource trustees or managers will provide timely advice on the necessary measures to protect wildlife from exposure to oil and the priority and timing of such measures. Protective measures may include all or a combination of the following:

- Prevent the oil from reaching areas where migratory birds and other wildlife are located by either containing or recovering the oil, or
- Deter birds or other wildlife from entering areas already affected by oil by using wildlife hazing devices or methods.

Wildlife hazing devices or methods are generally grouped into visual or auditory, or a combination of both. In an emergency, the USFWS, APHIS Wildlife Services, the state wildlife agency, or a local animal damage control agent may be able to locate and provide these devices.

## **6.3 WILDLIFE RESCUE AND REHABILITATION**

If exposure of birds and other wildlife to oil cannot be prevented, an immediate decision will need to be made whether to capture and rehabilitate oiled birds and other wildlife. The Department of the Interior (DOI) has statutory responsibilities for the protection of migratory birds and federally-listed threatened and endangered species, which are carried out by the USFWS. If animals other than migratory birds or federally-listed threatened or endangered species are found injured, the responsible agency would typically be the state wildlife agency. The decision to rescue and rehabilitate oiled wildlife must be made in consultation with the applicable state and federal natural resource agencies as state and federal permits are required by law.

State and federal permits are required to collect, possess, treat and band migratory birds and threatened and endangered species. Federal laws and regulations that require such permits are as follows:

- **Migratory Bird Treaty Act of 1918, as amended, 16 U.S.C. 703 et seq.** No person shall take, possess, import, export, transport, sell, purchase or barter, any migratory bird, or the parts, nests, or eggs of such bird except as permitted under the terms of a valid permit issued by U.S. Fish and Wildlife Service pursuant to the provisions of 50 CFR 21 and 50 CFR 13. Enforcement authority and penalties for violations are provided.
- **Bald and Golden Eagle Protection Act of 1940, as amended, 16 U.S.C. 668 et seq.** No person shall take, possess, or transport any bald eagle or any golden eagle, or the parts, nests, or eggs of such birds except as permitted under the terms of a valid permit issued by USFWS pursuant to 50 CFR 22 and 50 CFR 13. Enforcement authority and penalties for violations are provided.
- **Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 et seq.** It is unlawful for any person to commit, attempt to commit, solicit another to commit, or cause to be committed the import or export, take, possession, sale or offer for sale any endangered species except as permitted under the terms of a valid permit issued by the U.S. Fish and Wildlife Service pursuant to 50 CFR 17. Enforcement authority and penalties for violations are provided.

Missouri laws and regulations that require permits are as follows:

- **3 CSR 10-4.110(1) General Prohibition; Applications.** No bird, fish, crayfish, mussel, amphibian, reptile, mammal, or other form of wildlife, including their homes, dens, nests, eggs, and larvae in Missouri shall be molested, pursued, taken, hunted, trapped, tagged, marked, enticed, poisoned, killed, transported, stored, served, bought, sold, given away, accepted, possessed, propagated, imported, exported, or liberated to the wild in any manner, number, part, parcel, or quantity, at any time, except as specifically permitted by these rules and any laws consistent with Article IV, sections 40–46 of the *Constitution of Missouri*; however, this Code shall not apply to other invertebrates except as specifically provided.
- **3 CSR 10-9.415 Wildlife Rehabilitation Permit.** (1) A permit to take, possess, transport and hold in captivity for rehabilitation, sick or injured wildlife of Missouri origin. Wildlife may not be propagated, sold, exhibited, given away, held more than one hundred twenty (120) days, released or otherwise disposed of except as authorized by an agent of the department. This permit may be issued only to individuals or organizations qualified to rehabilitate wildlife through graduation from a school of veterinary medicine or other substantive training and experience in wildlife rehabilitation.  
  
(2) Species authorized to be held are limited to those specified on the permit. Any traps, nets or other devices used to take sick or injured wildlife under this permit shall be attended daily, or be constantly attended if so stated on the permit, and labeled with the

permit holder's full name and address. The names and addresses of persons assisting under the direct supervision of the holder of the permit shall be submitted to the local conservation agent in writing before assistance can be rendered. This permit does not relieve the holder of full compliance with other provisions of the Code or other state and federal requirements. The wildlife rehabilitation permit is not valid until signed.

(3) Animals held for rehabilitation must remain at the location specified on the permit or a veterinarian's premises except as otherwise authorized in writing by the director. The permit holder will confine the wildlife for public safety in a humane and sanitary condition acceptable to the Department of Conservation.

(4) Each permit holder shall maintain a current record, on forms furnished by the department, of each animal received, rehabilitated, destroyed, or released. Printed copies of these forms can be obtained from the Missouri Department of Conservation, PO Box 180, Jefferson City, MO 65102-0180 and online at [www.missouriconservation.org](http://www.missouriconservation.org). These records shall be available for inspection by an authorized agent of the department at any reasonable time.

*[Relevant laws governing other States are to be added as received.]*

If rescue and rehabilitation efforts are deemed worthwhile, one federal permit is required for oiled migratory birds and one federal permit is required for oiled threatened and endangered species. Each of these permits may encompass more than one species. If a bird is considered a migratory bird, but is also a threatened or endangered species, it should be listed under the threatened and endangered species permit.



**USFWS personnel will handle all federal permit activities through the field office responsible for the area where the spill occurs. State permits must be handled through the applicable state agency office. The offices that should be contacted to initiate the permitting process are:**

Iowa	U.S. Fish and Wildlife Service 1511 47 <sup>th</sup> Avenue Moline, Illinois 61265	309-757-5800 Fax: 757-5807
	Iowa Department of Natural Resources Licensing Bureau Wallace State Building East 9th and Grand Street Des Moines, Iowa 50319-0035	515-281-8688 Fax 281-6794
Kansas	U.S. Fish and Wildlife Service 2609 Anderson Ave Manhattan, Kansas 66502	785-539-3474 Fax 539-8567
	U.S. Fish and Wildlife Service Law Enforcement Division	316-214-9066
	Division of Fisheries and Wildlife Kansas Dept. of Wildlife and Parks 512 Southeast 25th Avenue Pratt, Kansas 67124-8174	620-672-5911 Fax 672-6020
Missouri	U.S. Fish and Wildlife Service 101 Park Drive, Suite A Columbia, Missouri 65203	573-234-2132 Fax 234-2181
	Wildlife Division Missouri Department of Conservation P.O. Box 180 Jefferson City, Missouri 65102	573-751-4115 Ext. 3553 Fax 526-4663
Nebraska	U.S. Fish and Wildlife Service 9325 S. Alda Road Wood River, Nebraska 68883	308-382-6468 Fax 384-8835
	Nebraska Game and Parks Commission 2200 North 33rd Street Lincoln, Nebraska 68503	402-471-0641 Fax 471-5528

**The appropriate USDA/APHIS office should be contacted to obtain operational and technical capabilities regarding the safe and humane capture, handling, hazing, and transport of wildlife:**

Iowa	Iowa Wildlife Services, State Director 1714 Commerce Court, Suite C Columbia, Missouri 65202	Phone: 573-449-3033 Toll Free: 1-866-4USDAWS Fax: 573-449-4382
Kansas	Kansas Wildlife Service, State Director 4070 Ft. Riley Blvd Manhattan, Kansas 66502	Phone: 785-537-6855 Toll Free: 1-866-4USDAWS Fax: 785- 537-6862
Missouri	Missouri Wildlife Service, State Director 1714 Commerce Court, Suite C Columbia, Missouri 65202	Phone: 573-449-3033 Toll Free: 1-866-4USDAWS Fax: 573-449-4382
Nebraska	Nebraska Wildlife Service, State Director 5940 S. 58th Street Lincoln, Nebraska 68516	Phone: 402-434-2340 Toll Free: 1-866-4USDAWS Fax: 402-434-2330

All rescue and rehabilitation efforts will be directed by the USFWS and the state wildlife agency, including the notification of a qualified wildlife rehabilitation organization and obtaining the necessary permits. The following criteria will be used by the USFWS and state wildlife agencies in selecting a rehabilitator.

***Guidelines for Selection of Wildlife Rehabilitator***

- Wildlife rehabilitator must have, or be able to obtain, the appropriate federal and state permits and licenses to collect, possess, treat, and band migratory birds or threatened and endangered species.
- Wildlife rehabilitator must demonstrate high standards of practice, treatment, conduct, and ethics as reflected by organization such as the National Wildlife Rehabilitator Association, the American Veterinarian Association and the American Society for Prevention of Cruelty to Animals.
- Wildlife rehabilitator must have adequate liability insurance to protect both staff and volunteers.
- Wildlife rehabilitator should have a proven record and experience in rescue and rehabilitation of oiled wildlife.

- Wildlife rehabilitator must comply with all applicable federal (Occupational Safety and Health Administration, etc.) and state safety regulations to protect staff and volunteers. Two organizations, International Bird Rescue in Berkeley, California, and Tri-State Bird Rescue and Research, Inc. in Newark, Delaware, have become recognized experts in oiled bird rehabilitation:

Tri-State Bird Rescue and Research, Inc.	Phone: 302-737-9543
170 Possum Hollow Road	Fax: 302-737-9562
Newark, Delaware 19711	

International Bird Rescue Research Centers

San Francisco Bay Center	Phone: 707-207-0380
4369 Cordelia Rd.	Fax 707-207-0395
Fairfield, California 94534	

Los Angeles Center	Phone: 310-514-2573
3601 S. Gaffey Street, Box 3	Fax 310-514-8219
San Pedro, California 90731	
Emergency Oiled Wildlife Response	Phone: 1-888-447-1743

These organizations have extensive experience in bird rescue and rehabilitation and have worked both with government and industry. In addition, other more local, less well known bird rehabilitation organizations may also have such expertise in this area. Veterinarians and researchers from USFWS, other federal agencies, and state wildlife agencies and universities may also provide assistance and expertise during rehabilitation efforts.

***All rescue and rehabilitation efforts will be directed by the USFWS and the state wildlife agency, including the notification of a qualified wildlife rehabilitation organization and obtaining the necessary permits.***

***Health and Safety Concerns in Wildlife Rescue and Rehabilitation***

Additional information can be found in the USFWS “Best Practices for Migratory Bird Care During Oil Spill Response”, which discusses techniques for preventing oiling of birds as well as good practices for cleaning, caring for, and releasing recovered birds. This document is available at: <https://digitalmedia.fws.gov/cdm/ref/collection/document/id/1264>.

Two Occupational Safety and Health Administration (OSHA) regulations cover the majority of occupational health and safety issues encountered during wildlife rescue and rehabilitation:

The Hazardous Wastes Operations and Emergency Response (29 CFR 1910.120) regulates organizations or individuals directly involved in on-site (hot-zone) retrieval or clean-up efforts. In addition, each state may have its own worker safety requirements; coordination with the appropriate state agency should be conducted to ensure these requirements are also met. The Hazard Communication Standard (29 CFR 1910.1200), also known as “Right to Know Law” or “HazCom” requires that all chemicals in the work place be fully evaluated for possible physical or health hazards and that all information relating to these hazards be made available to all workers. HazCom applies to rehabilitation organizations because petroleum is considered a human health hazard.

Rehabilitation organizations are legally required to educate and protect all employees, including volunteers. Individuals working with oiled animals need information of all potential hazards associated with the handling of these animals. The following minimum requirements should be applied to wildlife rescue and rehabilitation personnel, including volunteers:

- **Wildlife rescue and rehabilitation management personnel** are the core team of certified rehabilitators who will direct operations. These people must have 24 hours of classroom training in hazardous waste operations and emergency response.
- **Rehabilitation facility volunteers** work under the direction of the facility management team and are not allowed on-scene, nor in the hot-zone, unless additional training is provided (see Retrieval volunteers). Volunteers working in this category must receive four hours of training in the Hazard Communication Program before they can begin work.
- **Retrieval volunteers** work under the direction of the search and rescue management team and are allowed on-scene, but not in the hot zone. Volunteers working in this category must receive between 4-8 hours of training in the Hazard Communication Program before they can begin work.
- **Any hot-zone retrieval of animals** would need to be performed by someone with 40 hours of classroom safety training for hazardous waste workers that meets OSHA guidelines, including eight hour annual refresher training.

**The FOSC, in consultation with OSHA's representative to the Regional Response Team, has responsibility for making assessments when training requirements are in question.**

(The NCP 300.210 (c) II (H) states that the annex will identify and secure the means of providing, if needed, the minimum required OSHA and EPA training for volunteers, including those who assist with injured wildlife).

A **Hazard Communication Program** should contain all of the following elements:

- the nature of the oil and how its composition may change with the effect of weathering,
- the nature of other hazardous chemicals that may be contacted during rehabilitation efforts,
- routes of entry of these chemicals,
- signs and symptoms of chemical exposure,
- protective measures, including work practices and personal protective equipment (PPE, with training on how to properly use),
- environmental monitoring equipment,
- importance of personal hygiene,
- how to read a Safety Data Sheet and know what it means,
- first aid protocols and identification of medically trained personnel and first aid stations,
- storage and disposal of hazardous waste, including medical waste and PPE,
- training records of written curriculum, date and hours of instruction, instructor and student names.

Besides chemical hazards, other hazards such as mechanical, physical and biological hazards are also present during rescue and rehabilitation activities. Workers must also be trained on these hazards as well. In addition to the above, training elements may include the following:

Facility concerns:

- behavior of oiled birds
- proper animal restraint
- personal protective equipment and clothing to protect from bloodborne pathogens and zoonoses
- proper heavy lifting techniques
- safe working practices, e.g. no slippery or messy floors
- electrical safety

Field concerns (in addition to the above):

- climatic conditions (e.g. cold, heat)
- terrain
- proper retrieval methods
- vehicle safety (4-WD vehicle, boat)
- water hazards
- response operations hazards

Other safety concerns may occur at either the spill site or the rehabilitation facility. These concerns should be addressed on a site-specific basis.

#### **6.4 ENDANGERED SPECIES ACT CONSULTATION**

The following is a summary of FOSC and USFWS responsibilities under the Endangered Species Act, implementing regulations, and the ESA MOA. For detailed information of ESA consultation requirements and procedures, see Annex V (ESA MOA).

#### **PRE-SPILL PLANNING**

##### Area/Subarea Committee Chair Responsibilities

- Request (in writing) endangered species expertise, a species list, and a description of their habitats from USFWS.
- Engage in informal and as necessary, formal consultation on the Area Contingency Plan (ACP) and Subarea Plans.
- Upon receipt, distribute updated species information to all holders of the RICP and Subarea Plans. Distribute updated Threatened and Endangered Species sections of the Fish and Wildlife and Sensitive Environments Plan and all Subarea plans at least semiannually.

##### USFWS Responsibilities

- In response to request, provide species list and a description of their habitats, and identify a listed species expert to assist the Area/Subarea Committee.
- Engage in informal and as necessary, formal consultation on the ACP and Subarea Plans.

- As changes occur, but no less than semiannually, provide updated species information to the Area/Subarea Committee Chairs, through the DOI RRT/Area Committee Representative.

## **DURING SPILL RESPONSE**

### FOSC Responsibilities

- If fish and wildlife resources may be affected by a discharge or release, notify Federal and State Natural Resource Trustees and managers, and consult with them on removal actions to be taken.
- If listed species and/or critical habitat are or could be present, immediately contact USFWS to initiate emergency consultation pursuant to the Endangered Species Act, implementing regulations, and the ESA MOA.
- Keep USFWS and the DOI RRT/Area Committee Representative apprised of ongoing response actions.
- Document any adverse effects (including incidental take) to listed species or their habitat.
- Maintain a record of all oral and written communications with the USFWS during the response.

### USFWS Responsibilities

- Provide the FOSC with timely recommendations on actions to avoid or minimize impacts to listed species and/or their habitats throughout the duration of the response.
- Respond to requests for emergency consultation pursuant to the Endangered Species Act, implementing regulations, and the ESA MOA.
- If an incidental take is anticipated, so advise the FOSC.
- Upon request, participate in the Incident Command System (ICS)/Unified Command.
- Maintain a record of all oral and written communications with the FOSC during the response.

## **POST RESPONSE**

### FOSC Responsibilities

- If listed species or critical habitat have been adversely affected by response activities, initiate formal consultation of the effect of these activities pursuant to the Endangered Species Act, implementing regulations, and the ESA MOA. See Annex V to the RICP (ESA MOA) for specific requirements and procedures.

### USFWS Responsibilities

- Respond to requests for formal consultation in accordance with the Endangered Species Act, implementing regulations, and the ESA MOA.

## **6.5 LAW ENFORCEMENT**

The U.S. Fish and Wildlife Service's Office of Law Enforcement (OLE) is responsible for investigating suspected and alleged violations of federal wildlife laws including the Migratory Bird Treaty Act, 16 USC 703 *et seq.*, the Endangered Species Act, 16 USC 1538 *et seq.*, the Eagle Protection Act, 16 USC 668a *et seq.*, the National Wildlife Refuge Act, 16 USC 668dd *et seq.*, and several others.

Wildlife injuries, mortalities, and habitat impacts resulting from spills can constitute violations of OLE-enforced laws. Special Agents of the OLE or Refuge Officers of the Division of Refuges (when USFWS lands are involved) may be required to initiate investigations during the spill response phase in order to document violations and collect evidence in a timely manner. These law enforcement officers will coordinate their activities with the FOSC or other on- scene law enforcement personnel. Additionally, the Special Agents/Refuge Officers will insure that responders possess the necessary federal permits (Section 6.3) and that wildlife-related response activities are accomplished in accordance with applicable law and permit provisions.

Special Agents and Refuge Officers often have detailed knowledge of the local terrain and can provide timely, site specific information to response personnel. In many cases, the OLE and other USFWS responders have shared and similar interests and will work cooperatively on collecting or sampling, recording, storage, transportation, and laboratory analysis of injured or dead wildlife. When necessary, additional personnel operating under the guidance and direction of the OLE may be brought on scene to assist with wildlife handling or collection.

## **6.6 OTHER ROLES AND RESPONSIBILITIES OF NATURAL RESOURCE TRUSTEES**

In the event of a spill, it may be necessary for natural resource trustees and managers to initiate a Natural Resource Damage Assessment (NRDA). NRDA is the process by which trustees collect, compile and evaluate data, information and statistics to determine the extent of injury to natural



resources. This information is used to assess damages, the dollar amount necessary to restore injured natural resources and compensate for lost use as a result of the injury, and then to seek recovery of those damages from the Responsible Party.

At the same time removal actions undertaken to contain and remove oil and wildlife rescue and rehabilitation activities are occurring, the natural resource trustees may initiate NRDA activities. These activities are usually initiated to acquire data and materials that are likely to be lost if not collected during or immediately after a spill has occurred. Such field sampling and data collection is typically limited to:

- Samples necessary to preserve perishable materials likely to have been affected or contain evidence of the oil. These samples will generally be biological material that is either dead or has been visibly injured by the oil.
- Samples of other ephemeral conditions or materials, such as surface water, sediments, soil, or the oil itself, which are necessary for identification and measurement of concentrations. These samples would otherwise be lost because of such factors as dilution, movement, decomposition, or leaching if not taken immediately.
- Counts of dead or visibly injured organisms, which if delayed may not be possible because of factors such as decomposition, scavengers, sinking, or water movement.

In certain circumstances, a natural resource trustee may undertake emergency restoration efforts consistent with its existing authority to prevent or reduce the immediate migration of oil onto or into a trust resource. Emergency restoration would be undertaken by the trustee only if the Responsible Party does not do it or the EPA is precluded under statutory authority from conducting response and removal actions rapidly enough to protect natural resources.

Because initiation of natural resource damage assessment activities may occur concurrently with removal actions as part of the response, all sampling and field work conducted by the natural resource trustees must be coordinated with the lead response agency so as to minimize any interference with response operations or duplication of sampling and data collection efforts. Prior FOSC approval is required for any work conducted in support of removal activities and before any associated costs will be reimbursed by the Oil Spill Liability Trust Fund. Other activities performed as part of initiation of damage assessments are reimbursable by the Oil Spill Liability Trust Fund as long as these activities are approved in advance by the Fund Center.

## **7.0 HISTORIC/ARCHEOLOGICAL RESOURCE RESPONSE**

Although the NCP does not include language specific to protection of historic properties, there are several laws that require consultation to prevent impact to these resources. Additionally, various federal agencies including the EPA, DOI, U.S. Coast Guard (USCG), NOAA, Department of Energy (DOE), Department of Defense (DOD) and Department of Agriculture (USDA) signed the *Programmatic Agreement on Protection of Historic Properties during Emergency Response under the National Oil and Hazardous Substances Contingency Plan*. This Agreement ensures that historic properties are taken into account in the planning for and conduct of emergency response. Many states also have laws defining and protecting historic properties. Consultation with the State Historic Preservation Office (SHPO), Indian Tribes (Tribal Historic Preservation Office [THPO]), or other state and federal land management agencies during pre-emergency response planning and/or in the course of an emergency response will enable the FOSC to avoid or minimize impacts on these important resources. (See Annex VI for a copy of the *Programmatic Agreement*).

### **7.1 TECHNICAL EXPERTISE AND ASSISTANCE**

During a response, historic resource managers/specialists can provide technical assistance and expertise on potential effects of oil on sensitive archeological and/or historic environments that can be found in the impacted area. They are familiar with the area and are able to provide recommendations on the best locations for staging areas and access points. They will recommend specific protective measures and provide advice on response actions to be taken. They can assist in the development of a monitoring plan and subsequent collection of data.

If, during the consultation, the SHPO/THPO determines that historic properties or archaeological sites could be affected by the response, the FOSC can activate a qualified Historic Properties Specialist (HPS) to develop protective measures for historic properties and/or cultural resources. In some states, only the FOSC, and not the Responsible Party, may contract with an expert to serve as the FOSC's HPS. While some regions/states allow the Responsible Party to hire an HPS, it is recommended that this responsibility be maintained solely by the FOSC.

## 7.2 HISTORIC SITE PROTECTION

When an oil spill occurs, historic resource managers can provide timely advice on the necessary measures to protect protected sites from exposure to oil and the priority and timing of such measures. Protective measures are often site specific. In some situations, an emergency response decision may be made by the FOSC that adversely affects historic properties and/or cultural resources. In such cases, the emergency response decision must be an informed decision. An informed decision is one in which the FOSC has: (1) consulted (notified and professional comments taken into account) with the SHPO/THPO, federal land-managing agencies, Tribes, Native Alaskans, native Hawaiian organizations, and/or other interested parties; (2) if activated, consulted with an HPS; (3) consulted response plans (e.g., geographic response plan, (4) if ICS is activated, consulted with the Environmental Unit; and (4) determined if a categorical exclusion applies.

Applicable laws and regulations governing historic property protection include, but are not limited to:

- **The Historic Sites Act (HSA) of 1935**, which established the National Park Service as the Federal Governments' paramount historic preservation advocate.
- **The Archeological Resources Protection Act (ARPA)**, which prohibits the unauthorized excavation, removal, or defacement of archeological resources on federal and Indian lands. "Archeological resources" are comprehensively defined to include archeological sites, structural remains, artifacts, bones, debris, etc. The Act provides stiff penalties for violators, and spell out permit requirements (uniform regulations jointly issued by the DOI, DOA and DOD).
- **The American Indian Religious Freedom Act (AIRFA)** is a joint Congressional resolution declaring that the U.S. government will protect the inherent rights of Indian Tribes to the free exercise of their traditional religions. Generally, this requires agencies to consult with tribes when any action is contemplated that might affect the practice of traditional religion.
- **Executive Order 13007** requires agencies to avoid, to the best of their abilities, physical damage to Indian sacred sites on federal and Indian land.

## 7.3 EVALUATING THE INTERFACE OF THE RICP WITH NON-FEDERAL PLANS

The final rule on Oil Pollution Prevention for Non-Transportation-Related Onshore Facilities, 40 CFR Part 112, requires facilities with a total oil storage capacity greater than or equal to one

million gallons to submit response plans if located at a distance such that a discharge of oil could cause injury (as defined at 40 CFR 112.2) to fish, wildlife, sensitive environments and public water intakes.

Facility owners or operators must determine the distance at which an oil spill could cause injury to fish and wildlife and sensitive environments and have a plan for mitigating a discharge's adverse effect. The plan must be consistent with the requirements of the NCP and this RICP Annex.

EPA will review and approve Facility Response Plans for compatibility with this Annex; pipeline plans in Region 7 will be reviewed and approved by PHMSA. Participation by facilities in the Area and Subarea Committees is encouraged. Joint exercises will be conducted to test facility plans and their interface with this Annex.

## **FEDERAL TRUSTEE CONTACTS**

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Department of Agriculture – Region 7 RRT Representative

Department of Defense – Region 7 RRT Representative

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## **APPENDIX A.2**

# **ENVIRONMENTALLY SENSITIVE AREAS**

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## ENVIRONMENTALLY SENSITIVE AREAS

### APPENDIX A.2 TO REGION 7 INTEGRATED CONTINGENCY PLAN

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## 1.0 INTRODUCTION

Appendix A.2 contains a listing of Environmentally Sensitive Areas (ESA) in Region 7. The list has been accumulated by requesting information from federal, state and local agencies regarding their areas of responsibility as recommended by the Oil Pollution Prevention; Non-Transportation-Related Onshore Facilities; Final Rule, 40 CFR Part 112. While this list helps to identify sensitive environments that could be impacted by spills into water bodies, sensitive environments identified in the RICP should not be considered comprehensive or definitive. Many sensitive environments listed in the following tables are also accessible through the [EPA Region 7 Response & Planning Public Viewer](#).

**TABLE A.2.1**

**RECOMMENDED ENVIRONMENTALLY SENSITIVE AREAS AND  
CURRENT STATUS IN REGION 7 RICP**

ENVIRONMENTALLY SENSITIVE AREAS	RESPONSIBLE FEDERAL AGENCY	STATUS IN REGION 7 RICP
Wetlands, as defined in 40 CFR 230.3	EPA	Available. See #1 Wetlands
Critical habitat for designated or proposed endangered/threatened species	FWS	Listed
Habitat used by designated or proposed endangered/threatened species or marine mammals defined as depleted	FWS	Underdevelopment
National parks	DOI/NPS	Listed
Federal wilderness areas	USDA	Listed
Clean lakes program critical areas	EPA	Underdevelopment
National monuments	DOI/NPS	Listed
National lakeshore recreational areas	DOI/NPS	Listed
National preserves	DOI/NPS	Listed
National wildlife refuges	FWS	Listed
National river reach designated as Recreational	EPA	Listed
Federal or State designated scenic or wild river	DOI/NPS	Listed
Hatcheries	DOI/FWS	Listed
Waterfowl production areas	DOI/FWS	Listed
Wildlife Management Areas and Conservation Areas	State Wildlife Agencies	Listed for Nebraska and Missouri

**Notes:**

“Listed” is currently listed in this Appendix A.2

“See #” is referenced and available through EPA Region 7

DOI - Department of Interior

EPA - Environmental Protection Agency

FWS - Fish and Wildlife Service

NA = Not applicable in Region 7

NPS - National Park Service

USDA - United State Department of Agriculture

To aid responders operating within ESA, EPA in conjunction with the Upper Mississippi River Basin Association has developed Habitat Fact Sheets to guide oil response activities. Each fact sheet contains tips for operations within each habitat and their sensitivity to oil spills. The fact sheets address unique habitat considerations and scientific references. Final drafts of the habitat fact sheets are available at <https://umrba.org/document/habitat-fact-sheets-spill-response>. An example fact sheet for Deep Marsh Annual is included at the end of this section. A list of example fact sheets includes the following:

- Deep Marsh Annual
- Deep Marsh Perennial
- Open Water
- Populus Community
- Rooted-Floating Aquatics
- Sedge Meadow
- Shallow Marsh Annual
- Shallow Marsh Perennial
- Submersed Vegetation
- Wet Meadow

## 2.0 ENVIRONMENTALLY SENSITIVE AREAS

The following list identifies Environmentally Sensitive Areas in EPA Region 7 by State, county, agency, type and name. The database is a growing bank of information to be utilized with the understanding that is limited in its data. Updates will be made periodically to acknowledge new Environmentally Sensitive Areas or to add information that may have been missed.

**TABLE A.2.2**

### ENVIRONMENTALLY SENSITIVE AREAS – IOWA

COUNTY	AGENCY	TYPE	NAME	NOTES
Hardin	Iowa Dept. of Natural Resources (IDNR)	State Park	Pine Lake	0.5 Mi. N.E. Eldora - IA 118
Dickinson	IDNR	State Park	Gull Point	3.5 Mi. W. Milford - IA 32
Davis	IDNR	State Park	Lake Wapello	6 Mi. W. Drakesville - IA 273
Buna Vista	IDNR	State Park	Wanata	0.5 Mi. S. Peterson - IA 10
Taylor	IDNR	State Park	Lake of Three Fires	3 Mi. N.E. Bedford - IA 49
Washington	IDNR	State Park	Lake Darling	3 Mi. W. Brighton IA 78 & 1
Boone	IDNR	State Park	Ledges	6 Mi. S. Boone - IA 164
Warren	IDNR	State Park	Lake Ahquabi	5.5 Mi. SW Indianola - IA 349
Jasper	IDNR	State Park	Rock Creek	6 Mi. N.E. Kellogg - Co. Rd.
Black Hawk	IDNR	State Park	George Wyth Memorial	Adjoining Cedar Falls - US 57

**TABLE A.2.2**  
**ENVIRONMENTALLY SENSITIVE AREAS – IOWA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Washington	IDNR	State Park	Lake Darling	3 Mi. W. Brighton IA 78 & 1
Boone	IDNR	State Park	Ledges	6 Mi. S. Boone - IA 164
Warren	IDNR	State Park	Lake Ahquabi	5.5 Mi. SW Indianola - IA 349
Jasper	IDNR	State Park	Rock Creek	6 Mi. N.E. Kellogg - Co. Rd.
Black Hawk	IDNR	State Park	George Wyth Memorial	Adjoining Cedar Falls - US 57
Lucas	IDNR	State Park	Shimek Forest Camping	1 Mi. E Farmington - IA 2
Kossuth	IDNR	State Park	Ambrose A. Call	1.5 Mi. W. Algona
Guthrie	IDNR	State Park	Springbrook	8 Mi. NE Guthrie Center - IA 25 & 384
Calhoun	IDNR	State Park	Twin Lakes	7.5 MI N. Rockwell City - I 4 & 124
Monona	IDNR	State Park	Preparation Canyon	5 Mi. S.W. Moorhead - IA 372
Fremont	IDNR	State Park	Waubonsie	7 Mi. SW Sidney - IA 239 - 2
Muscatine	IDNR	State Park	Wildcat Den	10 Mi. E. Muscatine - IA 22
Pottawattamie	IDNR	State Park	Wilson Island Rec. Area	5 Mi. W. Loveland IA 362
Allamakee	IDNR	State Park	Yellow River Forest Camping	14 MI. SE Waudon - IA 76
Monona	IDNR	State Park	Lewis & Clark	3 MI NW Onawa - IA 342
Clayton	IDNR	State Park	Pikes Peak	2.5 Mi. SW Spirt Lake - IA 9
Dickinson	IDNR	State Park	Marble Beach	2 Mi. NW Orleans - IA 276
Cerro Gordo	IDNR	State Park	McIntosh Woods	0.75 Mi. E. Ventura - US 18
Dubuque	IDNR	State Park	Mines of Spain	S. edge of Dubuque - US 52
Dickinson	IDNR	State Park	Mini-Wakan	N. shore Spirt Lake
Decatur	IDNR	State Park	Nine Eagles	6 Mi. SE Davis City - Co. RD.
Emmet	IDNR	State Park	Okamanpedan	3 Mi. N.E. Dolliver-Co. Rd.
Linn	IDNR	State Park	Palisades-Kepier	3.5 Mi. W. Mt Vernon - US 30
Dickinson	IDNR	State Park	Lower Gar Access	0.5 Mi S.E. Arnolds Park US - 71
Jackson	IDNR	State Park	Maquoketa Caves	7 Mi. N.W. Maquoketa - IA 428
Hancock	IDNR	State Park	Pilot Knob	4 Mi E. Forest City - IA 9
Winneshiek	IDNR	State Park	Fort Atkins	Adjoins Ft. Atkinson - IA 24
Linn	IDNR	State Park	Pleasant Creek	4 Mi. N. & .5 Mi. W. Palo
Shelby	IDNR	State Park	Prairie Rose	6 Mi. S. E. Harlan
Jones	IDNR	State Park	Wapsipinicon	Adjoins Anomosa - E 34
Lucas	IDNR	State Park	Red Haw	1 Mi. E Chariton - US 34
Montgomery	IDNR	State Park	Viking Lake	4 Mi. S.E. Stanton - Co. Rd.
Polk	IDNR	State Park	Walnut Woods	4 Mi. SW Des Moines - IA 5
Van Buren	IDNR	State Park	Lacey-Kesauqua	Adjoins Keosauqua - IA 1
Appanose	IDNR	State Park	Honey Creek	0.5 MI. W/ 3.5 S.E. Moravia Hwy. 142
Winnebago	IDNR	State Park	Rice Lake	2.5 Mi. SE Lake Mills - Co. Rd. IA
Dickinson	IDNR	State Park	Tempiar Park Rec. Area	3 Mi. N.W. Spirtlake-IA 276
Buchanan	IDNR	State Park	Cedar Rock	3 Mi. N.W. Quasqueton

**TABLE A.2.2**  
**ENVIRONMENTALLY SENSITIVE AREAS – IOWA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Plymouth	IDNR	State Park	Stone	8 Mi. NW Sioux City - IA 12
Van Buren	IDNR	State Park	Stephens Forest Camping	W. Lucas, E. Chariton - US 65 - 34
Pottawattamie	IDNR	State Park	Lake Manawa	1 Mi. S. Council Bluffs - IA 92
Lee	IDNR	State Park	Stephens Forest Camping	W. Lucas, E. Chariton - US 65 - 34
Henry	IDNR	State Park	Geode	4 Mi. SW Danville - Co. Rd.
Mahaska	IDNR	State Park	Lake Keomah	5 MI E. Oskaloosa - IA 371
Johnson	IDNR	State Park	Lake MacBride	4 Mi. W. Solon - IA 382
Cass	IDNR	State Park	Lake Anita	5 Mi. S. Anita Interchange - I 80
Tama	IDNR	State Park	Union Grove	4 Mi. S.W. Gladbrooke - Co. Rd.
Dickinson	IDNR	State Park	Trappers Bay	Adjoins Lake Park - IA 219
Fayette	IDNR	State Park	Volga River Rec. Area	4 Mi. n Fayette - IA 150
Various counties	National Parks Service (NPS)	National Historic Trail	Lewis & Clark National Historic Trail	Generally following the Missouri River
Various counties	NPS	National Historic Trail	Mormon Pioneer National Historic Trail	From Nauvoo, IL, westward across southern IA toward Omaha.
Cherokee	The Nature Conservancy (TNC)	Project Area	Steele Prairie	
Winneschiek	TNC	Project Area	Finch Memorial Forest	Upper Iowa River
Howard	TNC	Project Area	Crossman Prairie	
Johnson	TNC	Project Area	Williams Prairie	
Warren	TNC	Project Area	Berry Woods	
Allamakee	TNC	Project Area	Moutain Maple Hollow	NE Iowa
Story	TNC	Project area	Ames High Prairie	
Scott	TNC	Project Area	Lock & Dam #14 Eagle Area	
Woodbury	TNC	Project Area	Sioux City Prairie	
Clayton	TNC	Project Area	Retz Memorial Forest	
Black Hawk	TNC	Project area	Cedar Hill Sand Prairie	
Clayton	TNC	Project Area	Bluebell Hollow	
Dickinson	TNC	Project Area	Freda Haffner Reserve	
Linn	TNC	Project Area	Behrens Pond & Woodland	
Muscatine	TNC	Projects Area	Red Cedar Woodland	
Muscatine	TNC	Projects Area	Greiner Family Nature Preserve	N. of Muscatine
Henry	TNC	Projects areas	Savage Memorial Woods	

**TABLE A.2.2**  
**ENVIRONMENTALLY SENSITIVE AREAS – IOWA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Clayton	TNC	Projects Area	Roggman Boreal Slopes	
Dubuque	TNC	Projects Area	Kaufmann Avenue Prairie	Dubuque
Linn	TNC	Project Area	Hanging Bog	
Cerro Gordo	TNC	Project Area	Hoffman Prairie	
Allamakee	U.S. Fish and Wildlife Service (FWS)	National Wildlife Refuge	Upper Mississippi River Natl. Wildlife Refuge (NWR)	
Allamakee	NPS	National Monument	Effigy Mounds Nat. Monument	3 MI. N. of Marquette
Allamakee	FWS	National Wildlife Refuge	Driftless Area NWR	
Allamakee	NPS	Identified in NPS Nationwide Rivers Inventory	Upper Iowa River	Kendallville to Highway 76 crossing
Allamakee	NPS	Identified in NPS Nationwide Rivers Inventory	Yellow River	Mississippi river to Hwy W 60 near Myron
Appanoose	U.S. Army Corps of Engineers (COE)	Large Reservoir	Rathbun Lake	
Black Hawk	NPS	Identified in NPS Nationwide Rivers Inventory	Wapsipinicon River	Mississippi River to Hwy. 334 at Frederika
Bremer	NPS	Identified in NPS Nationwide Rivers Inventory	Wapsipinicon River	Mississippi River to Hwy. 334 at Frederika
Bremer	TNC	Project Area	Brayton-Horsley Prairie	
Buchanan	NPS	Identified in NPS Nationwide Rivers Inventory	Wapsipinicon River	Mississippi River to Hwy. 334 at Frederika
Buena Vista	FWS	National Wildlife Refuge	Iowa Wetland Management District	
Butler	TNC	Project Area	Big Marsh	near Allison

**TABLE A.2.2**  
**ENVIRONMENTALLY SENSITIVE AREAS – IOWA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Calhoun	FWS	Topeka shiner Critical Habitat	West Cedar Creek	
Calhoun	FWS	Topeka shiner Critical Habitat	East Cedar Creek	
Calhoun	FWS	Topeka shiner Critical Habitat	Purgatory Creek	
Calhoun	FWS	Topeka shiner Critical Habitat	Cedar Creek	
Calhoun	FWS	Topeka shiner Critical Habitat	Prairie Creek	
Calhoun	FWS	Topeka shiner Critical Habitat	Lake Creek	
Calhoun	FWS	Topeka shiner Critical Habitat	Camp Creek West Fork	
Calhoun	FWS	Topeka shiner Critical Habitat	Hardin Creek	
Calhoun	FWS	Topeka shiner Critical Habitat	Camp Creek	
Carroll	FWS	Topeka shiner Critical Habitat	North Racoon River	
Cedar	NPS	National Historic Site	Herbert Hoover Historic Site	8 Mi. E of Iowa City
Cedar	NPS	Identified in NPS Nationwide Rivers Inventory	Wapsipinicon River	Mississippi River to Hwy. 334 at Frederika
Cerro Gordo	FWS	National Wildlife Refuge	Iowa Wetland Management District	



**TABLE A.2.2**  
**ENVIRONMENTALLY SENSITIVE AREAS – IOWA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Cerro Gordo	IDNR	State Park	Clear Lake	2 Mi S. Clear Lake - IA 106
Chickasaw	TNC	Project Area	Schrieder Prairie & Fen	
Clark	FWS	National Wildlife Refuge	Mark Twain NWR	
Clay	FWS	National Wildlife Refuge	Iowa Wetland Management District	
Clay	NPS	Nat NPS Rural Landmark	Dewey Pasture & Smith's Slough	4 Mi. NW of Ruthven
Clay	TNC	Project Area	Lindstrom-Simons Fen	
Clayton	FWS	National Wildlife Refuge	Upper Mississippi River NWR	
Clayton	FWS	National Wildlife Refuge	Driftless Area NWR	
Clayton	IDNR	State Park	Bixby	2 Mi. N Edgewood
Clayton	NPS	Identified in NPS Nationwide Rivers Inventory	Turkey River	Mississippi River to Vernon Springs
Clinton	FWS	National Wildlife Refuge	Upper Mississippi River NWFR	
Clinton NPS	NPS	Identified in NPS Nationwide Rivers Inventory	Wapsipinicon River	Mississippi River to Hwy. 334 at Frederika
Dallas	COE	Large Reservoir	Saylorville Lake	
Dallas	FWS	Topeka shiner Critical Habitat	Elm Branch	
Dallas	FWS	Topeka shiner Critical Habitat	Swan Lake Branch	
Dallas		Identified in NPS Nationwide Rivers Inventory	Middle Raccoon River	Panora to city of Redfield dam

**TABLE A.2.2**  
**ENVIRONMENTALLY SENSITIVE AREAS – IOWA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Dallas	TNC	Project Area	Dilvers-Smith Woods	access to Raccoon River
Delaware	IDNR	State Park	Backbone	4 Mi SW Strawberry Point - IA 410
Dickenson	FWS	National Wildlife Refuge	Iowa Wetland Management District	
Dickinson	IDNR	State Park	Emerson Bay	2.5 Mi. N. Milford - IA 32
Dickinson	NPS	Natural Landmark	Caylar Prairie	5 Mi. NW of West Okaboji
Dickinson	TNC	Project Area	Silver Lake Fen	
Dickinson	TNC	Project Area	Halbur Fen	
Dubuque	FWS	National Wildlife Refuge	Upper Mississippi River NWFR	
Dubuque	FWS	National Wildlife Refuge	Driftless Area NWR	
Dubuque	NPS	Natural Landmark	White Pine Hollow Preserve	20 Mi/ NW of Dubuque
Emmet	FWS	National Wildlife Refuge	Iowa Wetland Management District	
Emmet	IDNR	State Park	Fort Defiance	1 MI. W. Esterville - IA 9
Fayette	NPS	Identified in NPS Nationwide Rivers Inventory	Turkey River	Mississippi River to Vernon Springs
Franklin	IDNR	State Park	Beeds Lake	3 MI. N.W. Hampton-Co. Rd.
Greene	FWS	National Wildlife Refuge	Iowa Wetland Management District	
Greene	FWS	Topeka shiner Critical Habitat	North Raccoon River	
Greene	FWS	Topeka shiner Critical Habitat	East Buttrick Creek	
Greene	FWS	Topeka shiner Critical Habitat	Short Creek	
Greene	FWS	Topeka shiner Critical Habitat	Hardin Creek	

**TABLE A.2.2**  
**ENVIRONMENTALLY SENSITIVE AREAS – IOWA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Greene	FWS	Topeka shiner Critical Habitat	Buttrick Creek	
Greene	FWS	Topeka shiner Critical Habitat	Cedar Creek	
Greene	FWS	Topeka shiner Critical Habitat	West Buttrick Creek	
Guthrie	NPS	Identified in NPS Nationwide Rivers Inventory	Middle Raccoon River	Panora to city of Redfield dam
Guthrie	FWS	National Wildlife Refuge	Iowa Wetland Management District	
Hamilton	FWS	Topeka shiner Critical Habitat	Eagle Creek	
Hamilton	NPS	Identified in NPS Nationwide Rivers Inventory	Boone River	From Webster City to confluence with Des Moines River
Hamilton	NPS	Natural Landmark	Anderson Goose Lake	1 Mi. E. of Jewell
Hancock	FWS	National Wildlife Refuge	Iowa Wetland Management District	
Harrison	FWS	National Wildlife Refuge	DeSoto NWR	
Harrison	NPS	Natural Landmark	Loess Hill	Turin & Little Sioux/Smith Lake
Howard	NPS	Identified in NPS Nationwide Rivers Inventory	Turkey River	Mississippi River to Vernon Springs
Howard	NPS	Natural Landmark	Hayden Prairie	12 Mi. NW of Cresco
Iowa	FWS	National Wildlife Refuge	Mark Twain NWR	

**TABLE A.2.2**  
**ENVIRONMENTALLY SENSITIVE AREAS – IOWA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Jackson	FWS	National Wildlife Refuge	Upper Mississippi River NWFR	
Jackson	FWS	National Wildlife Refuge	Driftless Area NWR	
Jackson	IDNR	State Park	Bellevue	2.5 Mi. S. Bellevue - US 52
Jackson	NPS	Identified in NPS Nationwide Rivers Inventory	Maquoketa River	Mississippi River to US 151 Bridge
Jasper	FWS	National Wildlife Refuge	Neal Smith NWR	
Johnson	COE	Large Reservoir	Coralville Lake	
Jones	NPS	Identified in NPS Nationwide Rivers Inventory	Wapsipinicon River	Mississippi River to Hwy. 334 at Frederika
Jones	NPS	Identified in NPS Nationwide Rivers Inventory	Maquoketa River	Mississippi River to US 151
Kossuth	FWS	National Wildlife Refuge	Iowa Wetland Management District	
Kossuth	FWS	National Wildlife Refuge	Union Slough NWR	
Linn	NPS	Identified in NPS Nationwide Rivers Inventory	Wapsipinicon River	Mississippi River to Hwy. 334 at Frederika
Louisa	FWS	National Wildlife Refuge	Mark Twain NWR	
Louisa	NPS	Identified in NPS Nationwide Rivers Inventory	Cedar River	Iowa River to Highway 6

**TABLE A.2.2**  
**ENVIRONMENTALLY SENSITIVE AREAS – IOWA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Lyon	FWS	Topeka shiner Critical Habitat	Kanaranzi Creek	From its confluence with the Rock River (T100N, R45W, Sec. 28), upstream to the Iowa/Minnesota State border (T100N, R45W, Sec. 11)
Lyon	FWS	Topeka shiner Critical Habitat	Rock River	From its confluence with Kanaranzi Creek (T100N, R45W, Sec. 28), upstream to the Iowa/Minnesota State border (T100N, R45W, Sec. 8)
Madison	IDNR	State Park	Badger Creek Rec. Area	6 Mi. SE Van Meter
Marion	COE	Large Reservoir	Lake Red Rock	
Marion	IDNR	State Park	Elk Rock (Red Rock)	7 MI. N Knoxville - IA 14
Monona	NPS	Natural Landmark	Loess Hills	Turin * Little Sioux/Smith Lake
Muscatine	IDNR	State Park	Fairport	5 Mi. E. Muscatine - IA 22
Muscatine	IDNR	State Fish Hatchery	Fairport SFH	
Louisa	NPS	Identified in NPS Nationwide Rivers Inventory	Cedar River	Iowa River to Highway 6
Osceola	FWS	National Wildlife Refuge	Iowa Wetland Management District	
Osceola	FWS	Topeka shiner Critical Habitat	Little Rock River	From State Highway 9 (T100N, R43W, Sec. 34), upstream to the Iowa/Minnesota State border (T100N, R42W, Sec. 7)
Palo Alto	FWS	National Wildlife Refuge	Iowa Wetland Management District	
Palo Alto	NPS	Natural Landmark	Dewey Pasture & Smith's Slough	4 Mi. NW of Ruthven
Pike	FWS	National Wildlife Refuge	Mark Twain NWR	
Plymouth	TNC	Project Area	Broken Kettle Grasslands	Loess Hills
Plymouth	TNC	Project Areas	Five Ridge Preserve	
Polk	COE	Large Reservoir	Saylorville Lake	

**TABLE A.2.2**  
**ENVIRONMENTALLY SENSITIVE AREAS – IOWA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Polk	FWS	National Wildlife Refuge	Iowa Wetland Management District	
Polk	IDNR	State Park	Big Creek	2 Mi. N. Polk City - IA 415
Pottawattamie	FWS	National Wildlife Refuge	DeSoto NWR	
Sac	FWS	National Wildlife Refuge	Iowa Wetland Management District	
Sac	FWS	Topeka shiner Critical Habitat	Outlet Creek	From Black Hawk Lake from its confluence with Ditch 57 (T86N, R36W, Sec. 1), upstream to lake outlet (T87N, R35W, Sec. 35)
Sac	FWS	Topeka shiner Critical Habitat	Ditch 57	Tributary to Indian Creek, from their confluence (T87N, R35W, Sec. 23), upstream to the confluence with the outlet creek from Black Hawk Lake (T86N, R36W, Sec. 1)
Sac	FWS	Topeka shiner Critical Habitat	Indian Creek	From its confluence with the North Raccoon River (T87N, R35W, Sec. 24), upstream through T87N, R35W, Sec. 29
Sac	FWS	Topeka shiner Critical Habitat	North Raccoon River	
Sac	IDNR	State Park	Black Hawk	Lake View - IA 175 & 71
Scott	FWS	National Wildlife Refuge	Upper Mississippi River NWFR	
Scott	FWS	National Wildlife Refuge	Upper Mississippi River NWFR	
Scott	NPS	Identified in NPS Nationwide Rivers Inventory	Wapsipinicon River	Mississippi River to Hwy. 334 at Frederika
Scotts Bluff	TNC	Project Area	Scotts Bluff Monument	
Tama	BIA	Federal Indian Reservation	Sac & Fox	
Tama	FWS	National Wildlife Refuge	Mark Twain NWR	

**TABLE A.2.2**  
**ENVIRONMENTALLY SENSITIVE AREAS – IOWA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Thomas	USFS	Research Area	Signal Hill	
VanBuren	TNC	Project Area	Reno Timber	
Wayne	IDNR	State Park	Bobwhite	1 Mi. W. Allerton - IA 40
Webster	FWS	Topeka shiner Critical Habitat	Buttrick Creek	
Webster	FWS	Topeka shiner Critical Habitat	Ditch 57	
Webster	IDNR	State Park	Brushy Creek Rec. Area	4 Mi. E Lehigh - Co. Rd.
Webster	IDNR	State Park	Dolliver Memorial	3 Mi. NW Lehigh - IA 50
Webster	NPS	Identified in NPS Nationwide Rivers Inventory	Boone River	From Webster City to confluence with Des Moines River
Winnebago	FWS	National Wildlife Refuge	Iowa Wetland Management District	
Winneshiek	NPS	Natural Landmark	Cold Water Cave	
Winneshiek	NPS	Identified in NPS Nationwide Rivers Inventory	Turkey River	Mississippi River to Vernon Springs
Winneshiek	NPS	Identified in NPS Nationwide Rivers Inventory	Upper Iowa River	Kendallville to Highway 76 crossing
Worth	FWS	National Wildlife Refuge	Iowa Wetland Management District	
Wright	FWS	National Wildlife Refuge	Iowa Wetland Management District	
Wright	FWS	Topeka shiner Critical Habitat	Eagle Creek	
Wright	FWS	Topeka shiner Critical Habitat	Ditch 19	From its confluence with Ditch 3 (T91N, R26W, Sec. 31), upstream through T91N, R26W, Sec. 31

**TABLE A.2.2**

**ENVIRONMENTALLY SENSITIVE AREAS – IOWA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Wright	FWS	Topeka shiner Critical Habitat	Ditch 3	From its confluence with the Boone River (T91N, R26W, Sec. 32), upstream through T91N, R26W, Sec. 30



**TABLE A.2.3**

**ENVIRONMENTALLY SENSITIVE AREAS – KANSAS**

COUNTY	AGENCY	TYPE	NAME	NOTES
Sedgwick	Kansas Dept. of Wildlife and Parks (KDWP)	State Park	Cheney	RR 1, Box 167A, Cheney 67025
Douglas	KDWP	State Park	Clinton	798 N. 1415 RD, Lawrence, 66049
Crawford	KDWP	State Park	Crawford	Farlington, 66734
Trego	KDWP	State Park	Cedar Bluff	P.O. 76A, Ellis, 67637
Osage	KDWP	State Park	Eisenhower	RR 2, Box 306, Osage City, 66523
Butler	KDWP	State Park	El Dorado	RR3, Box 29A, El Dorado, 67402
Montgomery	KDWP	State Park	Elk City	Box 845, Independence, 67301
Greenwood	KDWP	State Park	Fall River	RR 1, Box 44, Toronto, 66777
Mitchell	KDWP	State Park	Glen Elder	Box 162A, Glen Elder, 67446
Miami	KDWP	State Park	Hillsdale	26001 W. 255th St., Paola, 66071
Ellsworth	KDWP	State Park	Kanopolis	RR 1 Box 26d, Marquette, 67464
Jewell	KDWP	State Park	Lovewell	RR1, Box 66A, Webber, 66970
Meade	KDWP	State Park	Meade	Box K, Meade, 67864
Riley	KDWP	State Park	Milford	8881 State Park, Milford, 66514
Ellsworth	KDWP	State Park	Mushroom Rock	RR 1, Box 26D, Marquette, 67464
Jefferson	KDWP	State Park	Perry	RR 1, Box 464A Ozawkie, 66070
Osage	KDWP	State Park	Pomona	RR 1, Box 118, Vassar, 66543
Norton	KDWP	State Park	Prairie Dog	Box 431, Norton, 67654
Harvey	KDWP	State Park	Sand Hills	4207 E. 56th, Rt 5, Hutchinson, 67502
Scott	KDWP	State Park	Scott	RR1, Box 50, Scott City, 67871
Riley	KDWP	State Park	Tuttle Creek	5020-B, Tuttle Cr. Blvd., Manhattan 66502
Rooks	KDWP	State Park	Webster	RR 2, Box 153, Stockton, 67669
Russell	KDWP	State Park	Wilson	RR 1, Box 181, Sylvan Grove, 67481
Various counties	National Parks Service (NPS)	National Historic Trail	California National Historic Trail	Developed over a period of years, and contains numerous cutoffs and alternate routes. General route began at Various jumping off points in MO, including Independence and St. Joseph, and headed westward following the routes of the Oregon and Santa Fe Trails through KS and the Platte River through NE.
Various counties	NPS	National Historic Trail	Lewis & Clark National Historic Trail	Generally following the Missouri River
Various counties	NPS	National Historic Trail	Oregon National Historic Trail	From Independence, MO to Topeka. The trail then headed generally northwestward, parallel to the Little Blue River, toward NE.

**TABLE A.2.3**  
**ENVIRONMENTALLY SENSITIVE AREAS – KANSAS**

COUNTY	AGENCY	TYPE	NAME	NOTES
Various counties	NPS	National Historic Trail	Pony Express National Historic Trail	Most of original trail has been obliterated through time. Some Pony Express Stations still exist. Trail started in Independence, MO, following the route of the Oregon Trail through KS toward the Platte River and the West.
Various counties	NPS	National Historic Trail	Santa Fe National Historic Trail	From Independence, MO, generally southwestward, across the State to Ft. Larned NHS. The trail then split, either following the Arkansas River or on a direct overland route toward the SW corner of the State.
Allen	Kansas Dept. of Health and Environment (KDHE)	Stream	Bloody Run	Special Aquatic Life Use Waters
Allen	KDHE	Stream	Marmaton River	Special Aquatic Life Use Waters
Allen	KDHE	Stream	Neosho River	Special Aquatic Life Use Waters
Allen	KDHE	Stream	Little Osage River	Special Aquatic Life Use Waters
Allen	KDHE	Stream	Onion Creek	Special Aquatic Life Use Waters
Allen	KDHE	Stream	Little Osage River, Middle Fork	Special Aquatic Life Use Waters
Allen	U.S. Fish and Wildlife Service (FWS)	Neosho madtom Critical Habitat		Parts of Cottonwood, Neosho, and Spring Rivers
Allen	FWS	Rabbitsfoot mussel Critical Habitat		Found in several waterways in Southeast KS
Allen	FWS	Neosho mucket mussel Critical Habitat		Found in several waterways in Southeast KS
Anderson	KDHE	Stream	Pottawatomie Creek	Special Aquatic Life Use Waters
Anderson	KDHE	Stream	Little Osage River, Middle Fork	Special Aquatic Life Use Waters
Anderson	KDHE	Stream	Middle Creek	Special Aquatic Life Use Waters
Anderson	KDHE	Stream	Pottawatomie Creek, S Fork	Special Aquatic Life Use Waters
Anderson	KDHE	Stream	Little Indian Creek	Special Aquatic Life Use Waters
Atchison	KDHE	Stream	Whiskey Creek	Special Aquatic Life Use Waters
Atchison	KDHE	Stream	White Clay Creek	Special Aquatic Life Use Waters
Atchison	KDHE	Stream	Missouri River	Special Aquatic Life Use Waters
Atchison	KDHE	Wetland	Muscotah Marsh	

**TABLE A.2.3**  
**ENVIRONMENTALLY SENSITIVE AREAS – KANSAS**

COUNTY	AGENCY	TYPE	NAME	NOTES
Barber	KDHE	Stream	Elm Creek	Special Aquatic Life Use Waters
Barber	KDHE	Stream	Elm Creek, North	Special Aquatic Life Use Waters
Barber	KDHE	Stream	Elm Creek, South	Special Aquatic Life Use Waters
Barber	KDHE	Stream	Elm Creek, South E Branch	Special Aquatic Life Use Waters
Barber	KDHE	Stream	Bear Creek	Special Aquatic Life Use Waters
Barber	KDHE	Stream	Elm Creek, South W Branch	Special Aquatic Life Use Waters
Barber	KDHE	Stream	Medicine Lodge River	Special Aquatic Life Use Waters
Barber	KDHE	Stream	Mulberry Creek	Special Aquatic Life Use Waters
Barber	KDHE	Stream	Mule Creek	Special Aquatic Life Use Waters
Barber	KDHE	Stream	Amber Creek	Special Aquatic Life Use Waters
Barber	KDHE	Stream	Turkey Creek	Special Aquatic Life Use Waters
Barber	KDHE	Stream	Sand Creek	Special Aquatic Life Use Waters
Barber		Identified in NPS Nationwide Rivers Inventory	Medicine (Lodge) River	KS/OK line to Gerlane
Barber		Identified in NPS Nationwide Rivers Inventory	Medicine (Lodge) River	Gerlane to Belvidere
Barton	FWS	Whooping Crane Critical Habitat	Cheyenne Bottoms	
Barton	KDHE	Stream	Deception Creek	Special Aquatic Life Use Waters
Barton	KDHE	Stream	Little Cheyenne Creek	Special Aquatic Life Use Waters Exceptional State Waters
Barton	KDHE	Stream	Arkansas River	Special Aquatic Life Use Waters
Barton	KDHE	Stream	Blood Creek	Special Aquatic Life Use Waters Exceptional State Waters
Barton	KDHE	Wetland	Cheyenne Bottoms	
Barton	The Nature Conservancy (TNC)	Project Area	Cheyenne Bottoms Wildlife Area	near Great Bend
Bourbon	KDHE	Stream	Marmaton River	Special Aquatic Life Use Waters
Bourbon	KDHE	Stream	Little Osage River	Special Aquatic Life Use Waters
Bourbon	NPS	National Historic Site	Fort Scott Nat. Historic Site	Adjacent to Fort Scott bus. district
Brown	Bureau of Indian Affairs (BIA)	Federal Indian Reservation	Iowa	
Brown	BIA	Federal Indian Reservation	Kickapoo	
Brown	BIA	Federal Indian Reservation	Sac & Fox	
Butler	U.S. Army Corps of Engineers (COE)	Large Reservoir	El Dorado Lake	

**TABLE A.2.3**  
**ENVIRONMENTALLY SENSITIVE AREAS – KANSAS**

COUNTY	AGENCY	TYPE	NAME	NOTES
Butler	KDHE	Stream	Walnut River	Special Aquatic Life Use Waters Exceptional State Waters
Butler	KDHE	Stream	Cottonwood River, S Fork	Special Aquatic Life Use Waters Exceptional State Waters
Butler	KDHE	Stream	Grouse Creek	Special Aquatic Life Use Waters Exceptional State Waters
Butler	FWS	Topeka shiner Critical Habitat	Cottonwood River and tributaries	
Chase	FWS	Topeka shiner Critical Habitat	Cottonwood River and tributaries	
Chase	FWS	Topeka shiner Habitat	Fox Creek, and tributaries	
Chase	FWS	Topeka shiner Habitat	Diamond Creek and tributaries	
Chase	FWS	Topeka shiner Habitat	Middle Creek and tributaries	
Chase	KDHE	Stream	Jacob Creek	Special Aquatic Life Use Waters
Chase	KDHE	Stream	Collett Creek	Special Aquatic Life Use Waters
Chase	KDHE	Stream	Cottonwood River	Special Aquatic Life Use Waters
Chase	KDHE	Stream	Cottonwood River, S Fork	Special Aquatic Life Use Waters Exceptional State Waters
Chase	KDHE	Stream	Bloody Creek	Special Aquatic Life Use Waters
Chase	KDHE	Stream	Little Cedar Creek	Special Aquatic Life Use Waters
Chase	KDHE	Stream	Middle Creek	Special Aquatic Life Use Waters
Chase	KDHE	Stream	Cedar Creek	Special Aquatic Life Use Waters Exceptional State Waters
Chase	NPS	National Preserve	Tallgrass Prairie National Preserve	
Chase		Identified in NPS Nationwide Rivers Inventory	Cedar Creek	Cottonwood River to Chase county line
Chase		Identified in NPS Nationwide Rivers Inventory	South Fork Cottonwood River	Cottonwood River to Little Cedar Creek
Chase	FWS	Neosho madtom Critical Habitat		Parts of Cottonwood, Neosho, and Spring Rivers
Chase	FWS	Rabbitsfoot mussel Critical Habitat		Found in several waterways in Southeast KS
Chase	FWS	Neosho mucket mussel Critical Habitat		Found in several waterways in Southeast KS
Chautauqua	FWS	Burying Beetle Habitat		upland prairie

**TABLE A.2.3**  
**ENVIRONMENTALLY SENSITIVE AREAS – KANSAS**

COUNTY	AGENCY	TYPE	NAME	NOTES
Chautauqua	KDHE	Stream	Caney River	Special Aquatic Life Use Waters Exceptional State Waters
Chautauqua	KDHE	Stream	Otter Creek	Special Aquatic Life Use Waters Exceptional State Waters
Chautauqua		Identified in NPS Nationwide Rivers Inventory	Caney River	KS/OK line to source
Chautauqua	FWS	Neosho mucket mussel Critical Habitat		Found in several waterways in Southeast KS
Cherokee	KDHE	Stream	Brush Creek	Special Aquatic Life Use Waters
Cherokee	KDHE	Stream	Shoal Creek	Special Aquatic Life Use Waters Exceptional State Waters
Cherokee	KDHE	Stream	Spring River	Special Aquatic Life Use Waters Exceptional State Waters
Cherokee	KDHE	Stream	Taylor Branch	Special Aquatic Life Use Waters
Cherokee	KDHE	Stream	Turkey Creek	Special Aquatic Life Use Waters
Cherokee	KDHE	Stream	Cow Creek	Special Aquatic Life Use Waters
Cherokee	KDHE	Stream	Neosho River	Special Aquatic Life Use Waters Exceptional State Waters
Cherokee		Identified in NPS Nationwide Rivers Inventory	Shoal Creek	Spring River to source
Cherokee		Identified in NPS Nationwide Rivers Inventory	Spring River	Hwy. 96 to Hwy. 44
Cherokee	FWS	Neosho madtom Critical Habitat		Parts of Cottonwood, Neosho, and Spring Rivers
Cherokee	FWS	Rabbitsfoot mussel Critical Habitat		Found in several waterway in Southeast KS
Cherokee	FWS	Neosho mucket mussel Critical Habitat		Found in several waterways in Southeast KS
Cheyenne	KDHE	Stream	Republican River, S Fork	Special Aquatic Life Use Waters
Cheyenne	KDHE	Stream	Arikaree River	Special Aquatic Life Use Waters
Cheyenne		Identified in NPS Nationwide Rivers Inventory	Arikaree River	KS/NE line to Alder Creek
Clark	KDHE	Lake	Clark Co. SFL	
Clark	KDHE	Lake	St. Jacobs Well (Big Basin W.	
Clark	KDHE	Stream	Kiowa Creek, West	Special Aquatic Life Use Waters
Clark	KDHE	Stream	Rattlesnake Creek	Special Aquatic Life Use Waters
Clark	KDHE	Stream	Cimarron River	Special Aquatic Life Use Waters Exceptional State Waters

**TABLE A.2.3**  
**ENVIRONMENTALLY SENSITIVE AREAS – KANSAS**

COUNTY	AGENCY	TYPE	NAME	NOTES
Clark	KDHE	Stream	Bluff Creek	Special Aquatic Life Use Waters
Clark		Identified in NPS Nationwide Rivers Inventory	Cimarron River	Hwy 23 E. of Liberal to CO/KS Line
Clark	NPS	Natural Landmark	Big Basin Preserve	13 Mi. WNW of Ashland
Clay	COE	Large Reservoir	Milford Lake	
Clay	KDHE	Stream	Republican River	Special Aquatic Life Use Waters
Cloud	KDHE	Stream	Republican River	Special Aquatic Life Use Waters
Cloud	KDHE	Wetland	Jamestown W.A.	
Coffey	COE	Large Reservoir	John Redmond Res.	
Coffey	FWS	National Wildlife Refuge	Flint Hills NWR	Neosho River Valley
Coffey	KDHE	Stream	Little Indian Creek	Special Aquatic Life Use Waters
Coffey	KDHE	Stream	Neosho River	Special Aquatic Life Use Waters
Coffey	KDHE	Stream	Frog Creek	Special Aquatic Life Use Waters
Coffey	KDHE	Stream	Long Creek	Special Aquatic Life Use Waters
Coffey	FWS	Neosho madtom Critical Habitat		Parts of Cottonwood, Neosho, and Spring Rivers
Coffey	FWS	Rabbitsfoot mussel Critical Habitat		Found in several waterway in Southeast KS
Coffey	FWS	Neosho mucket mussel Critical Habitat		Found in several waterways in Southeast KS
Comanche	KDHE	Stream	Cimarron River	Special Aquatic Life Use Waters
Comanche	KDHE	Stream	Bluff Creek	Exceptional State Waters
Comanche	KDHE	Stream	Kiowa Creek, Middle	Special Aquatic Life Use Waters
Comanche	KDHE	Stream	Kiowa Creek, West	Special Aquatic Life Use Waters
Comanche	KDHE	Stream	Mule Creek	Special Aquatic Life Use Waters
Comanche	KDHE	Stream	Cavalry Creek	Special Aquatic Life Use Waters
Comanche	KDHE	Stream	Kiowa Creek	Special Aquatic Life Use Waters
Comanche	KDHE	Stream	Nescatunga Creek	Special Aquatic Life Use Waters
Comanche	KDHE	Stream	Wiggins Creek	Special Aquatic Life Use Waters
Comanche		Identified in NPS Nationwide Rivers Inventory	Cimarron River	Hwy. 23 E. of Liberal to CO/KS line
Cowley	KDHE	Stream	Beaver Creek	Special Aquatic Life Use Waters
Cowley	KDHE	Stream	Grouse Creek	Exceptional State Waters
Cowley	KDHE	Stream	Little Beaver Creek	Special Aquatic Life Use Waters

**TABLE A.2.3**  
**ENVIRONMENTALLY SENSITIVE AREAS – KANSAS**

COUNTY	AGENCY	TYPE	NAME	NOTES
Cowley	KDHE	Stream	Otter Creek	Special Aquatic Life Use Waters
Cowley	KDHE	Stream	Spring Creek	Exceptional State Waters
				Special Aquatic Life Use Waters
Cowley	KDHE	Stream	Walnut River	Exceptional State Waters
Cowley	KDHE	Stream	Arkansas River	Special Aquatic Life Use Waters
Crawford	KDHE	Stream	Taylor Branch	Special Aquatic Life Use Waters
Crawford	KDHE	Stream	Cow Creek	Special Aquatic Life Use Waters
Crawford	KDHE	Stream	First Cow Creek	Special Aquatic Life Use Waters
Crawford	KDHE	Stream	Cow Creek, East	Special Aquatic Life Use Waters
Crawford	KDHE	Stream	Brush Creek	Special Aquatic Life Use Waters
Crowley	NPS	Identified in NPS Nationwide Rivers Inventory	Grouse Creek	Arkansas River to Cowley county line
Dickinson	KDHE	Lake	Herington Reservoir	
Dickinson	KDHE	Stream	Lime Creek	Special Aquatic Life Use Waters
Dickinson	KDHE	Stream	Lyon Creek	Special Aquatic Life Use Waters Exceptional State Waters
Dickinson	KDHE	Stream	Lyon Creek, W Branch	Special Aquatic Life Use Waters
Dickinson	KDHE	Stream	Carry Creek	Special Aquatic Life Use Waters
Dickinson	NPS	Identified in NPS Nationwide Rivers Inventory	Lyon Creek	Smoky Hill River to RR bridge S. of Woodbine
Dickinson	FWS	Topeka shiner Habitat	Lyon Creek and tributaries	
Doniphan	KDHE	Stream	Missouri River	Special Aquatic Life Use Waters
Douglas	COE	Large Reservoir	Clinton Lake	
Douglas	KDHE	Lake	Clinton Lake	
Douglas	KDHE	Stream	Kansas River	Special Aquatic Life Use Waters
Douglas	KDHE	Stream	Tauy Creek	Special Aquatic Life Use Waters
Douglas	KDHE	Stream	Appanoose Creek	Special Aquatic Life Use Waters
Douglas	NPS	Identified in NPS Nationwide Rivers Inventory	Kansas River	I-635 to Delaware River
Douglas	NPS	Natural Landmark	Baldwin woods	11 Mi. S. of Lawrence
Douglas	NPS	Natural Landmark	Baker University Wetlands	3 Mi. S of Lawrence
Edwards	KDHE	Stream	Rattlesnake Creek	Special Aquatic Life Use Waters
Elk	FWS	Burying Beetle Habitat		Upland prairie
Elk	KDHE	Stream	Fall River	Special Aquatic Life Use Waters Exceptional State Waters
Elk	KDHE	Stream	Grouse Creek	Exceptional State Waters
Elk	KDHE	Stream	Caney River	Special Aquatic Life Use Waters Exceptional State Waters

**TABLE A.2.3**  
**ENVIRONMENTALLY SENSITIVE AREAS – KANSAS**

COUNTY	AGENCY	TYPE	NAME	NOTES
Elk	NPS	Identified in NPS Nationwide Rivers Inventory	Fall River	Verdigris River to Fall River Lake
Elk	FWS	Neosho mucket mussel Critical Habitat		Found in several waterways in Southeast KS
Ellis	KDHE	Stream	Saline River	Exceptional State Waters
Ellsworth	KDHE	Stream	Smoky Hill River	Exceptional State Waters
Finney	KDHE	Stream	Arkansas River	Special Aquatic Life Use Waters
Ford	KDHE	Stream	Kiowa Creek, West	Special Aquatic Life Use Waters
Ford	KDHE	Stream	Rattlesnake Creek	Special Aquatic Life Use Waters
Ford	KDHE	Stream	Bluff Creek	Special Aquatic Life Use Waters
Franklin	KDHE	Stream	Marais des Cygnes River	Special Aquatic Life Use Waters
Franklin	KDHE	Stream	Ottawa Creek	Special Aquatic Life Use Waters
Franklin	KDHE	Stream	Pottawatomie Creek	Special Aquatic Life Use Waters
Franklin	KDHE	Stream	Appanoose Creek	Special Aquatic Life Use Waters
Franklin	KDHE	Stream	Pottawatomie Creek	Special Aquatic Life Use Waters
Franklin	KDHE	Stream	Tauy Creek	Special Aquatic Life Use Waters
Geary	COE	Large Reservoir	Milford Lake	
Geary	FWS	Topeka shiner Habitat	Clarks Creek and tributaries	
Geary	FWS	Topeka shiner Habitat	Lyon Creek and tributaries	
Geary	KDHE	Stream	Kansas River	Special Aquatic Life Use Waters
Geary	KDHE	Stream	Lyon Creek	Special Aquatic Life Use Waters Exceptional State Waters
Geary	KDHE	Stream	Lyon Creek, W Branch	Special Aquatic Life Use Waters
Geary	KDHE	Stream	Mill Creek, W Branch	Special Aquatic Life Use Waters
Geary	KDHE	Stream	Republican River	Special Aquatic Life Use Waters
Geary	KDHE	Stream	Carry Creek	Special Aquatic Life Use Waters
Geary	NPS	Identified in NPS Nationwide Rivers Inventory	Lyon Creek	Smoky Hill River to RR bridge S. of Woodbine
Gove	NPS	Natural Landmark	Monument Rocks Natural Area	23 Mi. S of Oakley
Graham	NPS	National Historic Site	Brown v. Board of Ed. National Historic Site	



**TABLE A.2.3**  
**ENVIRONMENTALLY SENSITIVE AREAS – KANSAS**

COUNTY	AGENCY	TYPE	NAME	NOTES
Grant	KDHE	Stream	Cimarron River	Special Aquatic Life Use Waters Exceptional State Waters
Grant	NPS	Identified in Nationwide Rivers Inventory	Cimarron River	Hwy. 23 E. of Liberal to Co/KS line
Greeley	KDHE	Stream	Ladder Creek	Special Aquatic Life Use Waters
Greeley	KDHE	Stream	Ladder Creek	Special Aquatic Life Use Waters
Greenwood	FWS	Topeka shiner Critical Habitat	Cottonwood River and tributaries	
Greenwood	KDHE	Stream	Fall River , E Branch	Special Aquatic Life Use Waters
Greenwood	KDHE	Stream	Fall River, W Branch	Special Aquatic Life Use Waters Exceptional State Waters
Greenwood	KDHE	Stream	Otter Creek	Special Aquatic Life Use Waters Exceptional State Waters
Greenwood	KDHE	Stream	Otter Creek, S Branch	Special Aquatic Life Use Waters
Greenwood	KDHE	Stream	Verdigris River	Special Aquatic Life Use Waters
Greenwood	KDHE	Stream	Fall River	Special Aquatic Life Use Waters Exceptional State Waters
Greenwood	NPS	Identified in NPS Nationwide Rivers Inventory	Otter Creek and N. Branch	Fall River Reservoir to Hwy 96/NW of Blodgett
Greenwood	FWS	Neosho mucket mussel Critical Habitat		Found in several waterways in Southeast KS
Hamilton	KDHE	Stream	Arkansas River	Special Aquatic Life Use Waters
Harper	KDHE	Stream	Chikaskia River	Special Aquatic Life Use Waters Exceptional State Waters
Harper	KDHE	Stream	Sand Cr	Special Aquatic Life Use Waters
Harper	NPS	Identified in NPS Nationwide Rivers Inventory	Chikaskia River	KS/OK line to Hwy 2, NE of Runnymede
Haskell	KDHE	Stream	Cimarron River	Special Aquatic Life Use Waters
Haskell	NPS	Identified in NPS Nationwide Rivers Inventory	Cimarron River	Hwy 23 E. of Liberal, KS to CO/KS line
Jackson	BIA	Federal Indian Reservation	Potawatomi	
Jefferson	COE	Large Reservoir	Perry Lake	
Jefferson	KDHE	Lake	Perry Lake	
Jefferson	KDHE	Stream	Kansas River	Special Aquatic Life Use Waters
Jefferson	KDHE	Stream	Buck Creek	Special Aquatic Life Use Waters
Jefferson	NPS	Identified in NPS Nationwide Rivers Inventory	Kansas River	I-635 to Delaware River

**TABLE A.2.3**  
**ENVIRONMENTALLY SENSITIVE AREAS – KANSAS**

COUNTY	AGENCY	TYPE	NAME	NOTES
Jewell	U.S. Department of Interior (DOI)/Bureau of Reclamation (USBR)	Lake	Lovewell Reservoir	
Jewell	KDHE	Stream	Republican River	Special Aquatic Life Use Waters
Johnson	KDHE	Stream	Kansas River	Special Aquatic Life Use Waters
Johnson	KDHE	Stream	Kansas River	Special Aquatic Life Use Waters
Johnson	NPS	Identified in NPS Nationwide Rivers Inventory	Kansas River	I-635 to Delaware River
Kearney	KDHE	Stream	Arkansas River	Special Aquatic Life Use Waters
Kingman	KDHE	Stream	Allen Creek	Special Aquatic Life Use Waters
Kingman	KDHE	Stream	Chikaskia River	Special Aquatic Life Use Waters Exceptional State Waters
Kingman	KDHE	Stream	Chikaskia River, N Fork	Special Aquatic Life Use Waters
Kingman	KDHE	Stream	Duck Creek	Special Aquatic Life Use Waters
Kingman	KDHE	Stream	Nester Creek	Special Aquatic Life Use Waters
Kingman	KDHE	Stream	Ninnescah River, S Fork	Special Aquatic Life Use Waters
Kingman	KDHE	Stream	Painter Creek	Special Aquatic Life Use Waters
Kingman	KDHE	Stream	Pat Creek	Special Aquatic Life Use Waters
Kingman	KDHE	Stream	Sand Creek	Special Aquatic Life Use Waters
Kingman	KDHE	Stream	Silver Creek	Special Aquatic Life Use Waters
Kingman	KDHE	Stream	Smoots Creek	Special Aquatic Life Use Waters
Kiowa	KDHE	Stream	Kiowa Creek	Special Aquatic Life Use Waters
Kiowa	KDHE	Stream	Kiowa Creek, Middle	Special Aquatic Life Use Waters
Kiowa	KDHE	Stream	Kiowa Creek, West	Special Aquatic Life Use Waters
Kiowa	KDHE	Stream	Medicine Lodge River	Special Aquatic Life Use Waters
Kiowa	KDHE	Stream	Mule Creek	Special Aquatic Life Use Waters
Kiowa	KDHE	Stream	Rattlesnake Creek	Special Aquatic Life Use Waters
Kiowa	KDHE	Stream	Cavalry Creek	Special Aquatic Life Use Waters
Kiowa	KDHE	Stream	Soldier Creek	Special Aquatic Life Use Waters
Kiowa	KDHE	Stream	Thompson Creek	Special Aquatic Life Use Waters Exceptional State Waters
Kiowa	KDHE	Stream	Wiggins Creek	Special Aquatic Life Use Waters
Kiowa	NPS	Identified in NPS Nationwide Rivers Inventory	Medicine (Lodge) River	Gerlane to Belvidere
Labette	KDHE	Stream	Labette Creek	Special Aquatic Life Use Waters
Labette	KDHE	Stream	Neosho River	Special Aquatic Life Use Waters Exceptional State Waters
Labette	FWS	Neosho madtom Critical Habitat		Parts of Cottonwood, Neosho, and Spring Rivers

**TABLE A.2.3**  
**ENVIRONMENTALLY SENSITIVE AREAS – KANSAS**

COUNTY	AGENCY	TYPE	NAME	NOTES
Labette	FWS	Rabbitsfoot mussel Critical Habitat		Found in several waterway in Southeast KS
Labette	FWS	Neosho mucket mussel Critical Habitat		Found in several waterways in Southeast KS
Leavenworth	KDHE	Stream	Missouri River	Special Aquatic Life Use Waters
Leavenworth	KDHE	Stream	Kansas River	Special Aquatic Life Use Waters
Leavenworth	KDHE	Stream	Salt Creek	Special Aquatic Life Use Waters
Leavenworth	KDHE	Stream	Missouri River	Special Aquatic Life Use Waters
Leavenworth	NPS	Identified in NPS Nationwide Rivers Inventory	Kansas River	I-635 to Delaware River
Linn	KDHE	Stream	Richland Creek	Special Aquatic Life Use Waters
Linn	KDHE	Stream	Muddy Creek	Special Aquatic Life Use Waters
Linn	KDHE	Stream	Middle Creek	Special Aquatic Life Use Waters
Linn	KDHE	Stream	Marais des Cygnes River	Special Aquatic Life Use Waters
Linn	KDHE	Stream	Big Sugar Creek	Special Aquatic Life Use Waters
Linn	KDHE	Stream	Sugar Creek, North	Special Aquatic Life Use Waters
Linn	KDHE	Stream	Elm Creek	Special Aquatic Life Use Waters
Linn	KDHE	Wetland	Marais des Cygnes Wildlife Area (WA)	
Linn	FWS	National Wildlife Refuge	Marais des Cygnes National Wildlife Refuge (NWR)	
Logan	KDHE	Stream	Ladder Creek	Special Aquatic Life Use Waters
Logan	KDHE	Stream	Depperschmidt Draw	Special Aquatic Life Use Waters
Logan	KDHE	Stream	Chalk Creek	Special Aquatic Life Use Waters
Logan	KDHE	Stream	Twin Butte Creek	Special Aquatic Life Use Waters
Logan	KDHE	Stream	Smoky Hill River	Special Aquatic Life Use Waters
Lyon	KDHE	Stream	Cottonwood River	Special Aquatic Life Use Waters
Lyon	KDHE	Stream	Elm Creek	Special Aquatic Life Use Waters
Lyon	KDHE	Stream	Jacob Creek	Special Aquatic Life Use Waters
Lyon	KDHE	Stream	Neosho River	Special Aquatic Life Use Waters
Lyon	FWS	Neosho madtom Critical Habitat		Parts of Cottonwood, Neosho, and Spring Rivers
Lyon	FWS	Rabbitsfoot mussel Critical Habitat		Found in several waterway in Southeast KS

**TABLE A.2.3**  
**ENVIRONMENTALLY SENSITIVE AREAS – KANSAS**

COUNTY	AGENCY	TYPE	NAME	NOTES
Lyon	FWS	Neosho mucket mussel Critical Habitat		Found in several waterways in Southeast KS
Marion	COE	Large Reservoir	Marion Lake	
Marion	FWS	Topeka shiner Habitat	Mud Creek	From the south section line of T19S, R3E, Sec. 13, upstream through T18S, R3E, Sec. 28
Marion	KDHE	Stream	Spring Creek	Special Aquatic Life Use Waters
Marion	KDHE	Stream	Lyon Creek	Special Aquatic Life Use Waters
Marion	KDHE	Stream	Mud Creek	Special Aquatic Life Use Waters
Marion	KDHE	Stream	Catlin Creek	Special Aquatic Life Use Waters
Marion	KDHE	Stream	Middle Creek	Special Aquatic Life Use Waters
Marshall	FWS	Topeka shiner Habitat	North Elm Creek	From its confluence with the Big Blue River (T1S, R7E, Sec. 11), upstream through T1S, R8E, Sec. 21
Marshall	FWS	Topeka shiner Habitat	Clear Fork Creek	From its confluence with Jim Creek (T5S, R9E, Sec. 17), upstream through T6S, R10E, Sec. 18
Marshall	KDHE	Stream	Black Vermillion R, Clear Fk	Special Aquatic Life Use Waters
Marshall	KDHE	Stream	Manley Creek	Special Aquatic Life Use Waters
Marshall	COE	Large Reservoir	Tuttle Creek	
Meade	KDHE	Lake	Lake Meade State Park	
Meade	KDHE	Stream	Cimarron River	Special Aquatic Life Use Waters
Meade	KDHE	Stream	Crooked Creek	Special Aquatic Life Use Waters
Meade	KDHE	Stream	Spring Creek	Special Aquatic Life Use Waters
Meade	KDHE	Stream	Stumpie Arroyo	Special Aquatic Life Use Waters
Meade	NPS	Identified in NPS Nationwide Rivers Inventory	Cimarron River	Hwy 23 E. Of Liberal, KS to CO/KS line
Miami	KDHE	Lake	Hillsdale Lake	
Miami	KDHE	Stream	Marais des Cygnes River	Special Aquatic Life Use Waters
Miami	KDHE	Stream	Pottawatomie Creek	Special Aquatic Life Use Waters
Miami	KDHE	Stream	Middle Creek	Special Aquatic Life Use Waters
Mitchell	DOI/BuRec	Lake	Glen Elder Reservoir	
Montgomery	FWS	Burying Beetle Habitat		Upland prairie
Montgomery	KDHE	Stream	Onion Creek	Special Aquatic Life Use Waters
Montgomery	KDHE	Stream	Verdigris River	Special Aquatic Life Use Waters
Montgomery	FWS	Rabbitsfoot mussel Critical Habitat		Found in several waterways in Southeast KS
Montgomery	FWS	Neosho mucket mussel Critical Habitat		Found in several waterways in Southeast KS

**TABLE A.2.3**  
**ENVIRONMENTALLY SENSITIVE AREAS – KANSAS**

COUNTY	AGENCY	TYPE	NAME	NOTES
Morris	FWS	Topeka shiner Habitat	Diamond Creek and tributaries	
Morris	COE	Lake	Council Grove Reservoir	
Morris	KDHE	Stream	Middle Creek	Special Aquatic Life Use Waters
Morris	KDHE	Stream	Lime Creek	Special Aquatic Life Use Waters
Morris	KDHE	Stream	Mill Creek, W Branch	Special Aquatic Life Use Waters
Morris	KDHE	Stream	Neosho River	Special Aquatic Life Use Waters
Morris	KDHE	Stream	Six Mile Creek	Special Aquatic Life Use Waters
Morris	FWS	Neosho madtom Critical Habitat		Parts of Cottonwood, Neosho, and Spring Rivers
Morris	FWS	Neosho mucket mussel Critical Habitat		Found in several waterways in Southeast KS
Morton	KDHE	Lake	Moss Lake East	
Morton	KDHE	Lake	Moss Lake Middle	
Morton	KDHE	Lake	Moss Lake West	
Morton	KDHE	Stream	Cimarron River	Special Aquatic Life Use Waters
Morton	KDHE	Stream	Cimarron River, N Fork	Special Aquatic Life Use Waters
Morton	NPS	Identified in NPS Nationwide Rivers Inventory	Cimarron River	Hwy 23 E. Of Liberal, KS to CO/KS line
Nemaha	KDHE	Stream	Big Nemaha River, S Fork	Special Aquatic Life Use Waters
Nemaha	KDHE	Stream	Manley Creek	Special Aquatic Life Use Waters
Neosho	KDHE	Stream	Flat Rock Creek	Special Aquatic Life Use Waters
Neosho	KDHE	Stream	Neosho River	Special Aquatic Life Use Waters
Neosho	KDHE	Wetland	Neosho WA	
Neosho	FWS	Neosho madtom Critical Habitat		Parts of Cottonwood, Neosho, and Spring Rivers
Neosho	FWS	Rabbitsfoot mussel Critical Habitat		Found in several waterways in Southeast KS
Neosho	FWS	Neosho mucket mussel Critical Habitat		Found in several waterways in Southeast KS
Norton	DOI/BuRec	Lake	Keith Sebelius Reservoir	
Osage	KDHE	Stream	Long Creek	Special Aquatic Life Use Waters
Osage	KDHE	Stream	Frog Creek	Special Aquatic Life Use Waters
Osage	KDHE	Stream	Appanoose Creek	Special Aquatic Life Use Waters
Ottawa	NPS	Natural Landmark	Rock City	2.5 Mi. SW of Minneapolis
Pawnee	NPS	National Historic Site	Fort Larned Nat. Historic Site	6 MI. W. Larned - Hwy 156
Phillips	KDHE/DOI/BuRec	Lake	Kirwin Lake	

**TABLE A.2.3**  
**ENVIRONMENTALLY SENSITIVE AREAS – KANSAS**

COUNTY	AGENCY	TYPE	NAME	NOTES
Phillips	FWS	National Wildlife Refuge	Kirwin NWR	N. Fork of Solomon River Valley
Pottawatomie	FWS	Topeka shiner Critical Habitat	Clear Fork Creek	Continuation of item #41 above
Pottawatomie	KDHE	Stream	Bucksnot Creek	Special Aquatic Life Use Waters
Pottawatomie	KDHE	Stream	Spring Creek	Special Aquatic Life Use Waters
Pottawatomie	KDHE	Stream	Black Vermillion River, Clear Fork	Special Aquatic Life Use Waters
Pottawatomie	KDHE	Stream	Kansas River	Special Aquatic Life Use Waters
Pottawatomie	KDHE	Stream	Bluff Creek	Special Aquatic Life Use Waters
Pratt	KDHE	Stream	Mulberry Creek	Special Aquatic Life Use Waters
Pratt	KDHE	Stream	Amber Creek	Special Aquatic Life Use Waters
Pratt	KDHE	Stream	Chikaskia River	Special Aquatic Life Use Waters
Pratt	KDHE	Stream	Chikaskia River, N Fork	Special Aquatic Life Use Waters
Pratt	KDHE	Stream	Elm Creek, North	Special Aquatic Life Use Waters
Pratt	KDHE	Stream	Elm Creek, South E Branch	Special Aquatic Life Use Waters
Pratt	KDHE	Stream	Elm Creek , South W Branch	Special Aquatic Life Use Waters
Pratt	KDHE	Stream	Turkey Creek	Special Aquatic Life Use Waters
Pratt	KDHE	Stream	Natrona Creek	Special Aquatic Life Use Waters
Pratt	KDHE	Stream	Ninnescah River, S Fork	Special Aquatic Life Use Waters
Pratt	KDHE	Stream	Ninnescah River, W Branch of S Fork	Special Aquatic Life Use Waters
Pratt	KDHE	Stream	Painter Creek	Special Aquatic Life Use Waters
Pratt	KDHE	Stream	Sand Creek	Special Aquatic Life Use Waters
Pratt	KDHE	Stream	Silver Creek	Special Aquatic Life Use Waters
Pratt	KDHE	Stream	Rattlesnake Creek	Special Aquatic Life Use Waters
Pratt	KDHE	Wetland	Texas Lake WA.	
Reno	DOI/BuRec/KDHE	Lake	Cheney Reservoir	
Reno	FWS	National Wildlife Refuge	Quivira NWR	South-central Kansas
Reno	KDHE	Stream	Arkansas River	Special Aquatic Life Use Waters
Reno	KDHE	Stream	Ninnescah River, N Fork	Special Aquatic Life Use Waters
Reno	KDHE	Stream	Peace Creek	Special Aquatic Life Use Waters
Reno	KDHE	Stream	Red Rock Creek	Special Aquatic Life Use Waters
Reno	KDHE	Stream	Silver Creek	Special Aquatic Life Use Waters
Reno	KDHE	Stream	Smoots Creek	Special Aquatic Life Use Waters
Reno	FWS	Wetland	Quivira Little Salt Marsh	
Republic	KDHE	Stream	Republican River	Special Aquatic Life Use Waters
Republic	KDHE	Wetland	Jamestown WA.	

**TABLE A.2.3**  
**ENVIRONMENTALLY SENSITIVE AREAS – KANSAS**

COUNTY	AGENCY	TYPE	NAME	NOTES
Rice	FWS	National Wildlife Refuge	Quivira NWR	South-central Kansas
Rice	KDHE	Stream	Arkansas River	Special Aquatic Life Use Waters
Rice	KDHE	Stream	Peace Creek	Special Aquatic Life Use Waters
Rice	KDHE	Stream	Rattlesnake Creek	Special Aquatic Life Use Waters
Riley	FWS	Topeka shiner Habitat	Walnut Creek	from the east section line of T7S, R6E, Sec. 19, upstream through T8S, R5E, Sec. 1
Riley	FWS	Topeka shiner Habitat	Deep Creek and tributaries	
Riley	FWS	Topeka shiner Habitat	Wildcat Creek and tributaries	
Riley	KDHE	Stream	Deep Creek	Special Aquatic Life Use Waters
Riley	KDHE	Stream	Kansas River	Special Aquatic Life Use Waters
Riley	KDHE	Stream	Spring Creek	Special Aquatic Life Use Waters
Riley	KDHE	Stream	Wildcat Creek	Special Aquatic Life Use Waters
Riley	COE	Large Reservoir	Tuttle Creek	
Riley	TNC, Kansas State University (KSU)	Project Area, Biosphere Reserve	Konza Prairie	S. of Manhattan
Rooks	DOI/BuRec	Lake	Webster Reservoir	
Rush	KDHE	Stream	Blood Creek	Special Aquatic Life Use Waters
Russell	COE	Large Reservoir	Wilson Lake	
Russell	NPS	Identified in NPS Nationwide Rivers Inventory	Saline River	Wilson Lake to Fairport
Russell	KDHE	Stream	Smoky Hill River	Special Aquatic Life Use Waters
Russell	KDHE	Stream	Saline River	Special Aquatic Life Use Waters
Scott	KDHE	Lake	Lake Scott State Park	
Scott	KDHE	Stream	Ladder Creek	Special Aquatic Life Use Waters
Sedgwick	KDHE	Stream	Arkansas River	Special Aquatic Life Use Waters
Sedgwick	KDHE	Stream	Chisolm Creek	Special Aquatic Life Use Waters
Sedgwick	KDHE	Stream	Clearwater Creek	Special Aquatic Life Use Waters
Sedgwick	KDHE	Stream	Nester Creek	Special Aquatic Life Use Waters
Sedgwick	KDHE	Stream	Ninnescah River	Special Aquatic Life Use Waters
Sedgwick	KDHE	Stream	Ninnescah River, S Fork	Special Aquatic Life Use Waters
Sedgwick	KDHE	Stream	Sand Creek	Special Aquatic Life Use Waters
Seward	KDHE	Stream	Cimarron River	Special Aquatic Life Use Waters
Seward	NPS	Identified in NPS Nationwide Rivers Inventory	Cimarron River	Hwy 23 E. Of Liberal, KS to CO/KS line



**TABLE A.2.3**  
**ENVIRONMENTALLY SENSITIVE AREAS – KANSAS**

COUNTY	AGENCY	TYPE	NAME	NOTES
Shawnee	FWS	Topeka shiner Habitat	Mission Creek	From Interstate Highway 70 (T11S, R14E, Sec. 33), upstream to the confluence of North Branch Mission Creek and South Branch Mission Creek (T13S, R12E, Sec. 1)
Shawnee	KDHE	Stream	Kansas River	Special Aquatic Life Use Waters
Shawnee	KDHE	Stream	Mill Creek	Special Aquatic Life Use Waters
Shawnee	NPS	National Historic Site	Nicodemus National Historic Site	
Stafford	FWS	National Wildlife Refuge	Quivira NWR	South-central Kansas
Stafford	FWS	Whooping crane Critical Habitat	Quivira NWR	
Stafford	KDHE	Stream	Peace Creek	Special Aquatic Life Use Waters
Stafford	KDHE	Stream	Ninnescah River, N Fork	Special Aquatic Life Use Waters
Stafford	KDHE	Stream	Rattlesnake Creek	Special Aquatic Life Use Waters
Stafford	FWS	Wetland	Quivira Little Salt Marsh	NWR
Stafford	FWS	Wetland	Quivira Big Salt Marsh	NWR
Stevens	KDHE	Stream	Cimarron River	Special Aquatic Life Use Waters
Stevens	NPS	Identified in NPS Nationwide Rivers Inventory	Cimarron River	Hwy 23 E. Of Liberal, KS to CO/KS line
Sumner	KDHE	Stream	Ninnescah River	Special Aquatic Life Use Waters
Sumner	KDHE	Stream	Arkansas River	Special Aquatic Life Use Waters
Sumner	KDHE	Stream	Spring Creek	Special Aquatic Life Use Waters
Sumner	KDHE	Stream	Chikaskia River	Special Aquatic Life Use Waters
Sumner	NPS	Identified in NPS Nationwide Rivers Inventory	Chikaskia River	KS/OK line to Hwy 2, NE of Runnynede
Trego	DOI/BuRec	Lake	Cedar Bluff Reservoir	
Wabaunsee	FWS	Topeka shiner Habitat	Mill Creek and tributaries	
Wabaunsee	KDHE	Stream	Kansas River	Special Aquatic Life Use Waters
Wabaunsee	KDHE	Stream	Deep Creek	Special Aquatic Life Use Waters
Wabaunsee	KDHE	Stream	Elm Creek	Special Aquatic Life Use Waters
Wabaunsee	KDHE	Stream	Illinois Creek	Special Aquatic Life Use Waters
Wabaunsee	KDHE	Stream	Mill Creek, W Branch	Special Aquatic Life Use Waters
Wabaunsee	KDHE	Stream	Locust Creek	Special Aquatic Life Use Waters
Wabaunsee	KDHE	Stream	Mill Creek	Special Aquatic Life Use Waters
Wabaunsee	KDHE	Stream	Mill Creek, E Branch	Special Aquatic Life Use Waters



**TABLE A.2.3**  
**ENVIRONMENTALLY SENSITIVE AREAS – KANSAS**

COUNTY	AGENCY	TYPE	NAME	NOTES
Wabaunsee	KDHE	Stream	Mill Creek, S Branch	Special Aquatic Life Use Waters
Wallace	FWS	Topeka shiner Habitat	Willow Creek	From its confluence with the Smoky Hill River (T13S, R41W, Sec. 17), upstream through T13S, R42W, Sec. 3
Wallace	KDHE	Stream	Ladder Creek	Special Aquatic Life Use Waters
Wallace	KDHE	Stream	Capper Draw	Special Aquatic Life Use Waters
Wallace	KDHE	Stream	Chalk Creek	Special Aquatic Life Use Waters
Wallace	KDHE	Stream	Coon Creek	Special Aquatic Life Use Waters
Wallace	KDHE	Stream	Depperschmidt Draw	Special Aquatic Life Use Waters
Wallace	KDHE	Stream	Eagletail Creek	Special Aquatic Life Use Waters
Wallace	KDHE	Stream	Pond Creek	Special Aquatic Life Use Waters
Wallace	KDHE	Stream	Rose Creek	Special Aquatic Life Use Waters
Wallace	KDHE	Stream	Smoky Hill River	Special Aquatic Life Use Waters
Wallace	KDHE	Stream	Twin Butte Creek	Special Aquatic Life Use Waters
Wallace	KDHE	Stream	Willow Creek	Special Aquatic Life Use Waters
Wichita	KDHE	Stream	Chalk Creek	Special Aquatic Life Use Waters
Wichita	KDHE	Stream	Ladder Creek	Special Aquatic Life Use Waters
Wilson	FWS	Burying Beetle habitat		Upland prairie
Wilson	KDHE	Stream	Fall River	Special Aquatic Life Use Waters
Wilson	KDHE	Stream	Verdigris River	Special Aquatic Life Use Waters
Wilson	NPS	Identified in NPS Nationwide Rivers Inventory	Fall River	Verdigris River to Fall river Lake
Wilson	FWS	Rabbitsfoot mussel Critical Habitat		Found in several waterways in Southeast KS
Wilson	FWS	Neosho mucket mussel Critical Habitat		Found in several waterways in Southeast KS
Woodson	KDHE	Lake	Woodson Co. State Fishing Lake (SFL)	
Woodson	KDHE	Lake	Circle Lake	
Woodson	KDHE	Lake	Leonard's Lake	
Woodson	KDHE	Stream	Bloody Run	Special Aquatic Life Use Waters
Woodson	KDHE	Stream	Neosho River	Special Aquatic Life Use Waters
Woodson	KDHE	Stream	Owl Creek, South	Special Aquatic Life Use Waters
Woodson	KDHE	Stream	Verdigris River	Special Aquatic Life Use Waters
Woodson	KDHE	Wetland	Woodson WA.	
Woodson	FWS	Neosho madtom Critical Habitat		Parts of Cottonwood, Neosho, and Spring Rivers

**TABLE A.2.3**

**ENVIRONMENTALLY SENSITIVE AREAS – KANSAS**

COUNTY	AGENCY	TYPE	NAME	NOTES
Woodson	FWS	Rabbitsfoot mussel Critical Habitat		Found in several waterways in Southeast KS
Woodson	FWS	Neosho mucket mussel Critical Habitat		Found in several waterways in Southeast KS
Wyandotte	KDHE	Stream	Kansas River	Special Aquatic Life Use Waters
Wyandotte	KDHE	Stream	Little Turkey Creek	Special Aquatic Life Use Waters
Wyandotte	KDHE	Stream	Missouri River	Special Aquatic Life Use Waters
Wyandotte	NPS	Identified in NPS Nationwide Rivers Inventory	Kansas River	I-635 to Delaware River

**TABLE A.2.4**

**ENVIRONMENTALLY SENSITIVE AREAS – MISSOURI**

COUNTY	AGENCY	TYPE	NAME	NOTES
Hickory	U.S. Army Corps of Engineers (COE)	Large Reservoir	Pomme De Terre Lake	
Clay	COE	Large Reservoir	Smithville Lake	
Henry	COE	Large Reservoir	Harry S. Truman Lake	
Monroe and Ralls	COE	Large Reservoir	Mark Twain Lake	
Cedar, Polk, and Dade	COE	Large Reservoir	Stockton Lake	
Stone, Barry, and Taney	COE	Large Reservoir	Table Rock Lake	
Wayne and Butler	COE	Large Reservoir	Wappapello Lake	
Various counties	National Parks Service (NPS)	National Historic Trail	California National Historic Trail	Developed over a period of years, and contains numerous cutoffs and alternate routes. General route began at Various jumping off points in MO, including Independence and St. Joseph, and headed westward following the routes of the Oregon and Santa Fe Trails through KS and the Platte River through NE.
Various counties	NPS	National Historic Trail	Lewis & Clark National Historic Trail	Generally follows the Missouri River
Various counties	NPS	National Historic Trail	Oregon National Historic Trail	Started in Independence, MO, and headed westward.
Various counties	NPS	National Historic Trail	Pony Express National Historic Trail	Most of original trail has been obliterated through time. Some Pony Express Stations still exist. Trail started in Independence, MO, following the route of the Oregon Trail through KS toward the Platte River and the West.
Various counties	NPS	National Historic Trail	Santa Fe National Historic Trail	
Various counties	NPS	National Historic Trail	Trail of Tears National Historic Trail	In an arc through southern MO, from just north of Cape Girardeau, northwestward to the present-day route of I-44, and then southwestward toward Tahlequah, AR.
Various counties in MO & AR	COE	Large Reservoir	Bull Shoals Lake	

**TABLE A.2.4**

**ENVIRONMENTALLY SENSITIVE AREAS – MISSOURI**

COUNTY	AGENCY	TYPE	NAME	NOTES
Various counties in MO & AR	COE	Large Reservoir	Norfork Lake	
	U.S. Forest Service (USFS)	National Forest	Mark Twain Nat. Forest	Numerous counties in south-central Missouri
	USFS	National Wilderness Area	Devil's Backbone	
	USFS	National Wilderness Area	Hercules Glades	
	USFS	National Wilderness Area	Irish	
	USFS	National Wilderness Area	Paddy Creek	
	USFS	National Wilderness Area	Piney Creek	
	USFS	National Wilderness Area	Rockpile Mountain	
	USFS	National Wilderness Area	Bell Mountain	
Audrain, Callaway, Montgomery	MDC	Stream	Loutre River	Stream contains habitat for species of conservation concern
Barry, Lawrence, Stone	MDC	stream	Crane Creek	Crane Creek blue ribbon rout area including Wire Road Conservation Area
Barry	MDC/DNR	stream	Roaring River State Park	Roaring River from spring source to end of White Ribbon Trout Area
Barry	NPS	Identified in NPS Nationwide Rivers Inventory	Shoal Creek	Spring River to source
Barton	NPS	Natural Landmark	Golden Prairie	16 Mi. NE of Carthage
Barton	The Nature Conservancy (TNC)	St Conservancy Preserve	Shelton L Cook Memorial Meadow	
Barton	TNC	St Conservancy Preserve	Tri-Sho Prairie	
Barton	TNC	St Conservancy Preserve	Hunkah Prairie	

**TABLE A.2.4**

**ENVIRONMENTALLY SENSITIVE AREAS – MISSOURI**

COUNTY	AGENCY	TYPE	NAME	NOTES
Barton	TNC	St Conservancy Preserve	Pawhuska Prairie	
Benton	TNC	St Conservancy Preserve	Rockhill Prairie	
Bollinger	U.S. Fish and Wildlife Service (FWS)	National Wildlife Refuge	Mingo National Wildlife Refuge (NWR)	Watershed drains into Refuge
Bollinger	NPS	Identified in NPS Nationwide Rivers Inventory	Castor River	
Boone	NPS	Identified in NPS Nationwide Rivers Inventory	Cedar Creek	Missouri River to Hwy WW
Boone	TNC	St Conservancy Preserve	Hinkson Valley	
Butler	NPS	Identified in NPS Nationwide Rivers Inventory	Little Black River	S36,T25N, R2E to MO-AR State line
Callaway	NPS	Identified in NPS Nationwide Rivers Inventory	Cedar Creek	Missouri River to Hwy WW
Callaway	NPS	Natural Landmark	Tucker Prairie	7 Mi. NNW of Fulton
Callaway	MDC	Stream	Auxvasse Creek	Stream contains habitat for species of conservation concern
Camden	NPS	Natural Landmark	Carroll Cave	Private
Carter	NPS	National Scenic Riverway	Ozark National Scenic Riverway	134 Mi. of Jacks Fork & Current Rivers
Camden	USFW	Stream	Little Niangua River	Federally designated critical habitat for endangered species. Little Niangua River and 50 feet on each side of the river from 1 mile below (downstream of) Highway 54, Camden County, to county road E, Dallas County.
Carter	NPS	Identified in NPS Nationwide Rivers Inventory	Current River	Entire segment within Ozark National Scenic Riverways

**TABLE A.2.4**

**ENVIRONMENTALLY SENSITIVE AREAS – MISSOURI**

COUNTY	AGENCY	TYPE	NAME	NOTES
Cedar	NPS	Identified in NPS Nationwide Rivers Inventory	Cedar Creek	Sac river to source
Cedar	TNC	St Conservancy Preserve	Mo-Ko Prairie	
Cedar	TNC	St Conservancy Preserve	Monegaw Prairie	
Cedar	USFWS	Federally designated Niangua Darter critical habitat	Brush Creek	Brush Creek and 50 feet on each side of the creek from 1000 feet upstream of county road J to the boundary of Sections 54 and 35. Township 36 N. Range 25 W.
Chariton	FWS	National Wildlife Refuge	Swan Lake NWR	
Chariton	NPS	Identified in NPS Nationwide Rivers Inventory	Locust Creek	Grant River to Hwy. 36
Chariton, Linn	MDC	Priority watershed and conservation opportunity area	Yellow Creek	From Grand River to Highway 36. Unchannelized prairie stream with high quality habitat and species diversity. Unique to region. Flows along Swan Lake NWR and numerous private wetlands.
Christian	NPS	Identified in NPS Nationwide Rivers Inventory	Swan Creek	From S4, T26N, R18W to Bull Shoals Lake
Christian	DNR	Missouri Outstanding State Resource Water	Bull Creek	Eight miles of Bull Creek located in Sec. 24,25N,21W to Sec. 22,26N,20W
Clark	FWS	National Wildlife Refuge	Great River NWR	Fox Island Division
Clark	FWS	National Wildlife Refuge	Mark Twain NWR	
Clay	NPS	Natural Landmark	Maple Woods Natural Area	
Clinton	TNC	St Conservancy Preserve	Trice-Dedman Memorial Woods	
Cooper	FWS	National Wildlife Refuge	Big Muddy NWR	Overton Bottoms North Unit

**TABLE A.2.4**

**ENVIRONMENTALLY SENSITIVE AREAS – MISSOURI**

COUNTY	AGENCY	TYPE	NAME	NOTES
Crawford	NPS	Identified in NPS Nationwide Rivers Inventory	Huzzah Creek	Meramec River to Dillard
Crawford	NPS	Identified in NPS Nationwide Rivers Inventory	Courtois Creek	Huzzah Creek to Brazil
Crawford	NPS	Identified in NPS Nationwide Rivers Inventory	Meramec River	Meramec State Park to Cook Station
Crawford	NPS	Identified in NPS Nationwide Rivers Inventory	Bourbeuse River	Noser Hill to Hwy B
Crawford	NPS	Natural Landmark	Onondag Cave	5 Mi. SW of Leasburg
Crawford	TNC	St Conservancy Preserve	Zahorsky Woods	
Dade	NPS	Identified in NPS Nationwide Rivers Inventory	Cedar Creek	Sac river to source
Dade	TNC	St Conservancy Preserve	Niawthe Prairie	
Dade	TNC	St Conservancy Preserve	N. B. Altwater Corry Flatrocks	
Dade	TNC	St Conservancy Preserve	Greenfield Glade	
Dallas	NPS	Identified in NPS Nationwide Rivers Inventory	Little Niangua River	S20, T35N, R19W to Lake of the Ozarks
Dallas	NPS	Identified in NPS Nationwide Rivers Inventory	Niangua River	Bennet Spring Branch to Camden/Dallas county line
Dallas	USFWS	Federally designated Niangua Darter critical habitat	Little Niangua River	Little Niangua River and 50 feet on each side of the river from 1 mile below (downstream of) Highway 54, Camden County, to county road E, Dallas County.

**TABLE A.2.4**

**ENVIRONMENTALLY SENSITIVE AREAS – MISSOURI**

COUNTY	AGENCY	TYPE	NAME	NOTES
Dallas	USFWS	Federally designated Niangua Darter critical habitat	Niangua River	Niangua River and 50 feet on each side of the river, from county road K upstream to 1 mile beyond county road M to the Webster County line.
Daviess	NPS	Identified in NPS Nationwide Rivers Inventory	Marrowbone Creek	Hwy 13 to I-35
Dent	NPS	Identified in NPS Nationwide Rivers Inventory	Current River	Entire segment within Ozark National Scenic Riverways
Dent	NPS	Identified in NPS Nationwide Rivers Inventory	Little Piney Creek	S21, T34N, R8W to Gasconade River
Dent	TNC	St Conservancy Preserve	Hyer Woods	
Douglas	NPS	Identified in NPS Nationwide Rivers Inventory	Beaver Creek	S24, T26N, R17W to Bull Shoals Lake
Douglas	NPS	Identified in NPS Nationwide Rivers Inventory	Bryant Creek	N. Fork White River to Hwy. 14
Douglas	NPS	Identified in NPS Nationwide Rivers Inventory	Indian Creek	North Fork of the White River to source
Douglas	NPS	Identified in NPS Nationwide Rivers Inventory	North Fork White River	Norfork Lake to source
Douglas	NPS	Identified in NPS Nationwide Rivers Inventory	Spring Creek	S24, T26N, R10W to S34, T25N, R11W, almost entirely within the Mark Twain NF
Douglas	TNC	St Conservancy Preserve	Alma Peterson Azalea Memorial	
Douglas	TNC	St Conservancy Preserve	Williams Memorial Woods	



**TABLE A.2.4**

**ENVIRONMENTALLY SENSITIVE AREAS – MISSOURI**

COUNTY	AGENCY	TYPE	NAME	NOTES
Franklin	NPS	Identified in NPS Nationwide Rivers Inventory	Bourbeuse River	Noser Mill to Hwy 8
Franklin	NPS	Identified in NPS Nationwide Rivers Inventory	Meramec River	Meramec State Park to Cook Station
Gasconade	NPS	Identified in NPS Nationwide Rivers Inventory	Bourbeuse River	Noser Mill to Hwy. 8
Gasconade	NPS	Identified in NPS Nationwide Rivers Inventory	Gasconade River	Missouri R. to source
Greene	NPS	National Battlefield	Wilson Creek Nat. Battlefield	10 MI. SW of Springfield
Greene	USFWS	Federally designated Niangua Darter critical habitat	Pomme de Terre River	Pomme de Terre River and 50 feet on each side of the river from Highway 65 upstream to the Webster County line
Harrison	TNC		Dunn Ranch Prairie	
Hickory	USFWS	Federally designated Niangua Darter critical habitat	Little Niangua River	Little Niangua River and 50 feet on each side of the river from 1 mile below (downstream of) Highway 54, Camden County, to county road E, Dallas County.
Hickory	NPS	Identified in NPS Nationwide Rivers Inventory	Little Niangua River	S20, T35N, R19W to Lake of the Ozarks
Holt	FWS	National Wildlife Refuge	Squaw Creek	
Holt	TNC	St Conservancy Preserve	J. C. McCormack Loess Mounds	
Howard	FWS	National Wildlife Refuge	Big Muddy NWR	Lisbon Bottoms Unit

**TABLE A.2.4**

**ENVIRONMENTALLY SENSITIVE AREAS – MISSOURI**

COUNTY	AGENCY	TYPE	NAME	NOTES
Howell	NPS	Identified in NPS Nationwide Rivers Inventory	Indian Creek	North Fork of the White River to source
Howell	NPS	Identified in NPS Nationwide Rivers Inventory	Spring Creek	S24, T26N, R10W to S34, T25N, R11W, almost entirely within the Mark Twain NF
Howell	NPS	Identified in NPS Nationwide Rivers Inventory	Spring River and Warm Fork	From confluence with Black River to headwaters near West Plains, MO
Howell	NPS	Identified in NPS Nationwide Rivers Inventory	Spring River, South Fork	From confluence with Spring River to headwaters south of South Fork, Mo
Iron	FWS	National Wildlife Refuge	Pilot Knob NWR	Administered by Mingo NWR
Jackson	FWS	National Wildlife Refuge	Big Muddy NWR	Jackass Bend Unit
Jackson	NPS	National Historic Site	Harry Truman Nat. Historic Site	Truman Rd & Main, Independence
Jasper	NPS	Identified in NPS Nationwide Rivers Inventory	Spring River	Highway 96 to Highway 44
Jasper	TNC	St Conservancy Preserve	Wha-Sha-She Prairie	
Jefferson	FWS	National Wildlife Refuge	Middle Mississippi River NWR	Harlow Island District
Jefferson	TNC	St Conservancy Preserve	Victoria Glade	
Jefferson	TNC	St Conservancy Preserve	N. B. Altwater LaBarque Hills	
Knox	NPS	Identified in NPS Nationwide Rivers Inventory	North Fork of Middle Fabius River	North Fork of the Middle Fabius River to source

**TABLE A.2.4**

**ENVIRONMENTALLY SENSITIVE AREAS – MISSOURI**

COUNTY	AGENCY	TYPE	NAME	NOTES
Knox	NPS	Identified in NPS Nationwide Rivers Inventory	South Fabius River	Count Hwy. E to confluence of the North Fabius and the South Fabius
Laclede	NPS	Identified in NPS Nationwide Rivers Inventory	Gasconade River	Missouri R. to source
Laclede	NPS	Identified in NPS Nationwide Rivers Inventory	Niangua River	Bennet Spring Branch to Camden/Dallas county line
Laclede	NPS	Identified in NPS Nationwide Rivers Inventory	Osage Fork of the Gasconade River	South of High Prairie to S23, T35N, R14W
Laclede	TNC	St Conservancy Preserve	Bennett Spring Savanna	
Lafayette	FWS	National Wildlife Refuge	Big Muddy NWR	Baltimore Bottoms Unit
Lawrence	FWS	National Wildlife Refuge	Ozark Cavefish NWR	Administered by Mingo NWR
Lawrence	NPS	Identified in NPS Nationwide Rivers Inventory	Spring River	Highway 96 to Hwy 44
Lawrence	TNC	St Conservancy Preserve	Mount Vernon Prairie	
Lewis	NPS	Identified in NPS Nationwide Rivers Inventory	North Fork of Middle Fabius River	North Fork of Middle Fabius River to source
Lewis	TNC	St Conservancy Preserve	Accola Woods	
Lincoln	NPS	Identified in NPS Nationwide Rivers Inventory	West Fork Cuivre River	Cuivre River to County Hwy AC

**TABLE A.2.4**

**ENVIRONMENTALLY SENSITIVE AREAS – MISSOURI**

COUNTY	AGENCY	TYPE	NAME	NOTES
Linn	NPS	Identified in NPS Nationwide Rivers Inventory	Locust Creek	Grand River to Hwy 36
Livingston	NPS	Identified in NPS Nationwide Rivers Inventory	Locust Creek	Grand River to Hwy 36
Madison	NPS	Identified in NPS Nationwide Rivers Inventory	Castor River	
Madison	NPS	Identified in NPS Nationwide Rivers Inventory	Little St. Francois River	Northwest of Fredericktown to St. Francois River
Madison	NPS	Identified in NPS Nationwide Rivers Inventory	St Francis River	Lake Wappapello to Syenite
Maries, Osage		Stream	Maries River	Stream contains threatened species habitat
Maries	NPS	Identified in NPS Nationwide Rivers Inventory	Gasconade River	Missouri R. to source
Marion	NPS	Natural Landmark	Mark Twain & Cameron Caves	2 Mi. SE of Hannibal
McDonald	NPS	Identified in NPS Nationwide Rivers Inventory	Big Sugar Creek	S35,T22N, R30W to Pineville. Joins Little Sugar Creek to form the Elk River.
McDonald	NPS	Identified in NPS Nationwide Rivers Inventory	Elk River	From Pineville to the MO-OK State line
Mississippi	NPS	Natural Landmark	Big Oak Tree	Big Oak Tree State Park
Moniteau, Cooper, Cole		Stream	Moniteau Creek	Stream contains endangered species habitat

**TABLE A.2.4**

**ENVIRONMENTALLY SENSITIVE AREAS – MISSOURI**

COUNTY	AGENCY	TYPE	NAME	NOTES
Montgomery	NPS	Identified in NPS Nationwide Rivers Inventory	West Fork Cuivre River	Cuivre River to County Hwy AC
Newton	FWS	National Wildlife Refuge	Mingo NWR - Neosho Unit	Spring containing Ozark cavefish habitat
Newton	FWS	National Fish Hatchery	Neosho National Fish Hatchery (NFH)	
Newton	NPS	National Park	George Washington Carver Nat. Monument	7. Mi s of I-44
Newton	NPS	Identified in NPS Nationwide Rivers Inventory	Shoal Creek	
Newton	MDC	Stream	Capps Creek	Capps Creek White Ribbon Trout Area including Capps Creek Conservation Area
Newton	FWS	National Research Facility	Columbia Environmental & Contaminants Research Ctr.	
Nodaway	TNC	St Conservancy Preserve	Dobbins Woodlands	
Oregon	NPS	Identified in NPS Nationwide Rivers Inventory	Spring River and Warm Fork	From confluence with Black River to headwaters near West Plains, MO
Oregon	NPS	National Scenic River	Eleven Point	Downstream from Thomasville to State Highway 142
Oregon	NPS	Natural Landmark	Grand Gulf	8 Mi. W of Thayer
Oregon	NPS	Natural Landmark	Greer Spring	52 Mi. W of Poplar Bluff
Osage	FWS	National Wildlife Refuge	Big Muddy NWR	St. Aubert=s Island Unit
Osage	NPS	Identified in NPS Nationwide Rivers Inventory	Gasconade River	Missouri R. to source

**TABLE A.2.4**

**ENVIRONMENTALLY SENSITIVE AREAS – MISSOURI**

COUNTY	AGENCY	TYPE	NAME	NOTES
Ozark	NPS	Identified in NPS Nationwide Rivers Inventory	Bryant Creek	N. Fork White River to Hwy 14
Ozark	NPS	Identified in NPS Nationwide Rivers Inventory	North Fork White River	Norfork Lake to source
Phelps	NPS	Identified in NPS Nationwide Rivers Inventory	Bourbeuse River	Noser Mill to Hwy B
Phelps	NPS	Identified in NPS Nationwide Rivers Inventory	Big Piney River	Gasconade River to Hwy 63
Phelps	NPS	Identified in NPS Nationwide Rivers Inventory	Gasconade River	Missouri R. to source
Phelps	NPS	Identified in NPS Nationwide Rivers Inventory	Little Piney Creek	S21, T34N, R8W to Gasconade River
Phelps	NPS	Identified in NPS Nationwide Rivers Inventory	Meramec River	Meramec State Park to Cook Station
Phelps	NPS	Natural Landmark	Maramec Spring	8 Mi. SE of St. James
Phelps	DNR	State Outstanding Resource Waters / cold water streams	Mill Creek	Yelton Spring to confluence with Little Piney Creek
Phelps	DNR	State Outstanding Resource Waters / cold water streams	Spring Creek	Relfe Spring to confluence with Big Piney River
Pike	FWS	National Wildlife Refuge	Great River NWR	Clarence Cannon Refuge

**TABLE A.2.4**

**ENVIRONMENTALLY SENSITIVE AREAS – MISSOURI**

COUNTY	AGENCY	TYPE	NAME	NOTES
Pike	FWS	National Wildlife Refuge	Mark Twain NWR	
Pulaski	NPS	Identified in NPS Nationwide Rivers Inventory	Big Piney River	Gasconade River to Hwy 63
Pulaski	NPS	Identified in NPS Nationwide Rivers Inventory	Gasconade River	Missouri R. to source
Reynolds	NPS	Identified in NPS Nationwide Rivers Inventory	Black River	Hwy K to source
Reynolds	TNC	St Conservancy Preserve	Lily Pond	
Reynolds	TNC	St Conservancy Preserve	N.B. Altwater Grasshopper Holl	
Ripley	NPS	Identified in NPS Nationwide Rivers Inventory	Little Black River	S36, T25N, R2E to MO-AR State line
Ripley	NPS	Natural Landmark	Cupola Pond	Mark Twain Nat. Forest
Ripley	TNC	St Conservancy Preserve	N.B. Altwater Pondberry	
Saline	FWS	National Wildlife Refuge	Big Muddy NWR	Jameson Island Unit
Schuyler	NPS	Identified in NPS Nationwide Rivers Inventory	Middle Fabius River & N. Fork	N. Fabius River to source
Scotland	NPS	Identified in NPS Nationwide Rivers Inventory	Middle Fabius River & N. Fork	N. Fabius River to source
Shannon	NPS	National Scenic Riverway	Ozark National Scenic Riverway	134 Mi. of Jacks Fork & Current Rivers

**TABLE A.2.4**

**ENVIRONMENTALLY SENSITIVE AREAS – MISSOURI**

COUNTY	AGENCY	TYPE	NAME	NOTES
Shannon	NPS	Identified in NPS Nationwide Rivers Inventory	Current River	Entire segment within Ozark National Scenic Riverways
Shannon	NPS	Identified in NPS Nationwide Rivers Inventory	Jacks Fork	Entire segment within Ozark National Scenic Riverways
Shannon	TNC	St Conservancy Preserve	N.B. Altvater Shut-in-Mntn Fen	
St. Charles	FWS	National Wildlife Refuge	Mark Twain NWR	
St. Clair	FWS	National Wildlife Refuge	Swan Lake	
St. Clair	USFWS	Federally designated Niangua Darter critical habitat	Brush Creek	Brush Creek and 50 feet on each side of the creek from 1000 feet upstream of county road J to the boundary of Sections 54 and 35. Township 36 N. Range 25 W.
St. Charles	FWS	National Wildlife Refuge	Big Muddy NWR	Boone=s Crossing Unit
St. Francois	NPS	Identified in NPS Nationwide Rivers Inventory	St. Francis River	Lake Wappapello to Syenite
St. Genevieve	NPS	Natural Landmark	Pickle Springs	7 Mi. E. of Farmington
St. Clair	NPS	Natural Landmark	Taberville Prairie	2.5 Mi. N of Taberville
St. Clair	TNC	St Conservancy Preserve	Wah'Kon-Tah Prairie	
St. Clair	TNC	St Conservancy Preserve	Lichen Glade	
St. Francis	TNC	St Conservancy Preserve	Silas Dees Azalea & Wildflower	
St. Louis	NPS	National Memorial	Jefferson Nat. Expansion Memorial	Mississippi Riverfront, St. Louis
St. Louis	NPS	National Historic Site	Ulysses S. Grant Historic Site	9060 White Haven Dr. St. Louis



**TABLE A.2.4**

**ENVIRONMENTALLY SENSITIVE AREAS – MISSOURI**

COUNTY	AGENCY	TYPE	NAME	NOTES
Stoddard	FWS	National Wildlife Refuge	Mingo NWR	
Stone	NPS	Natural Landmark	Marvel Cave	50 Mi. S of Springfield
Sullivan	NPS	Identified in NPS Nationwide Rivers Inventory	Locust Creek	End channelization to sect. 28
Taney	Empire Electric District	Reservoir	Lake Taneycomo	
Taney	NPS	Identified in NPS Nationwide Rivers Inventory	Beaver Creek	S24,T26N, R17W to Bull Shoals Lake
Taney	NPS	Identified in NPS Nationwide Rivers Inventory	Swan Creek	S4, T26N, R18W to Bull Shoals Lake
Taney	NPS	Natural Landmark	Tumbling Creek Cave	
Texas	NPS	Identified in NPS Nationwide Rivers Inventory	Big Piney River	Gasconade River to Hwy 63
Texas	NPS	Identified in NPS Nationwide Rivers Inventory	Jacks Fork	Entire segment within Ozark National Scenic Riverways
Texas	NPS	Identified in NPS Nationwide Rivers Inventory	North Fork White River	Norfork Lake to source
Texas	NPS	National Scenic Riverway	Ozark National Scenic Riverway	134 Mi. of Jacks Fork & Current Rivers
Vernon	TNC	St Conservancy Preserve	Marmaton River Bottoms Wet Prairie	
Vernon	TNC	St Conservancy Preserve	Little Osage Prairie	
Vernon	TNC	St Conservancy Preserve	Gamagrass Meadows	

**TABLE A.2.4**

**ENVIRONMENTALLY SENSITIVE AREAS – MISSOURI**

COUNTY	AGENCY	TYPE	NAME	NOTES
Warren	NPS	Natural Landmark	Wegener Woods	.25 Mi N of Holstein
Washington	NPS	Identified in NPS Nationwide Rivers Inventory	Mineral Fork	Big River to Hwy F
Washington	NPS	Identified in NPS Nationwide Rivers Inventory	Courtois Creek	Huzzah Creek to Brazil
Washington	NPS	Identified in NPS Nationwide Rivers Inventory	Meramec River	Meramec State Park to Cook Station
Wayne	FWS	National Wildlife Refuge	Mingo NWR	
Wayne	NPS	Identified in NPS Nationwide Rivers Inventory	Castor River	
Wayne	NPS	Identified in NPS Nationwide Rivers Inventory	St. Francis River	Lake Wappapello to Syerite
Webster	NPS	Identified in NPS Nationwide Rivers Inventory	Osage Fork of the Gasconade River	South of High Prairie to S23, T35N, R14W
Wright	NPS	Identified in NPS Nationwide Rivers Inventory	Gasconade River	Missouri R. to source County Lake

**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Various counties	National Parks Service (NPS)	National Historic Trail	California National Historic Trail	Developed over a period of years, and contains numerous cutoffs and alternate routes. General route began at Various jumping off points in MO, including Independence and St. Joseph, and headed westward following the routes of the Oregon and Santa Fe Trails through KS and the Platte River through NE.
Various counties	NPS	National Historic Trail	Lewis and Clark National Historic Trail	Generally follows the Missouri River
Various counties	NPS	National Historic Trail	Mormon Pioneer National Historic Trail	Generally follows the Platte River on north side of the channel, from near Omaha to Scotts Bluff in western Nebraska.
Various counties	NPS	National Historic Trail	Oregon National Historic Trail	Enters southeast Nebraska west of Odell, and generally follows the Blue River to Ayr. Then the trail cuts northwest toward Kearney and the Platte River, which it follows westward to Scotts Bluff. The trail generally follows the south side of the channel. West of Ogallala, a portion of the trail follows the S. Platte and the route of I-80 to Sydney, before cutting north again along the route of US-385 back toward the N. Platte.
Various counties	NPS	National Historic Trail	Pony Express National Historic Trail	Most of original trail has been obliterated through time. Some Pony Express Stations still exist. Trail started in Independence, MO, and went generally westward to San Francisco, CA, following the Platte River.
Adams	FWS	Waterfowl Production Area	Weseman Waterfowl Production Area (WPA)	
Adams	FWS	Waterfowl Production Area	Kenesaw WPA	

**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Adams	Nebraska Game and Parks Commission (NGPC)	State Recreation Area	Crystal Lake State Recreation Area (SRA)	
Adams	NGPC	State Recreation Area	DLD SRA	
Adams	NGPC	State Recreation Area	Prairie Lake SRA	
Adams	The Nature Conservancy (TNC)	Project Area	Various Platte River	
Antelope	NGPC	State Historical Park	Ashfall Fossil Beds State Historic Park (SHP)	
Antelope	NGPC	Wildlife Management Area	Hackberry Creek WMA	
Antelope	NGPC	Wildlife Management Area	Grove Lake WMA	
Antelope	NGPC	Wildlife Management Area	Red Wing WMA	
Arthur	TNC	Project Area	Arapaho Prairie	
Arthur	TNC	Project Area	Arapaho Prairie	Managed by University of NE
Banner	NGPC	Wildlife Management Area	Wildcat Hills WMA	
Banner	NGPC	Wildlife Management Area	Buffalo Creek WMA	
Blain	NPS	Identified in NPS Nationwide Rivers Inventory	Middle Loup River	Milburn diversion Dam to source
Blaine	NGPC	Wildlife Management Area	Milburn Diversion Dam WMA	
Blaine	NPS	Identified in NPS Nationwide Rivers Inventory	Dismal River	Middle Loup River to source
Boone	NGPC	Wildlife Management Area	Beaver Bend WMA	
Boyd	FWS	National Wildlife Refuge	Karl E. Mundt National Wildlife Refuge (NWR)	
Boyd	NGPC	Wildlife Management Area	Hull Lake WMA	
Boyd	NGPC	Wildlife Management Area	Parshall Bridge WMA	
Boyd	NPS	National Recreational River	Missouri River	Fort Randall Dam (SD) downstream to Knox county line
Boyd	NPS	National Scenic River	Niobrara River	76 miles downstream of Valentine

**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Boyd	NPS	Identified in NPS Nationwide Rivers Inventory	Niobrara River	Keya Paha River to Antelope Creek
Boyd	NPS	Identified in NPS Nationwide Rivers Inventory	Niobrara River	Missouri River to Keya Paha River (omit Spencer Dam & Reservoir)
Brown	NGPC	State Recreation Area	Long Lake SRA	
Brown	NGPC	State Recreation Area	Keller Park SRA	
Brown	NGPC	State Recreation Area	Long Pine SRA	
Brown	NGPC	Wildlife Management Area	Pine Glen WMA	
Brown	NGPC	Wildlife Management Area	Bobcat WMA	
Brown	NGPC	Wildlife Management Area	Keller Park/School Land WMA	
Brown	NGPC	Wildlife Management Area	Plum Creek Valley	1.5 miles S. of Johnstown
Brown	NGPC	Wildlife Management Area	Long Pine WMA	
Brown	NGPC	Wildlife Management Area	South Twin Lake WMA	
Brown	NGPC	Wildlife Management Area	American Game Marsh WMA	
Brown	NGPC	Wildlife Management Area	Willow Lake (Brown Co) WMA	
Brown	NGPC	Wildlife Management Area	South Pine WMA	12 miles S. of Long Pine
Brown	NPS	Identified in NPS Nationwide Rivers Inventory	Niobrara River	Keya Paha River to Antelope Creek
Brown	NPS	Identified in NPS Nationwide Rivers Inventory	Calamus	North Loup River to source
Brown	NPS	Identified in NPS Nationwide Rivers Inventory	Long Pine Creek	Niobrara River to source
Brown	TNC	Project Area	Niobrara Valley Preserve	Parts of T32-R23 and R24, T33-R23 and R24
Buffalo	FWS	Whooping Crane Critical Habitat	Platte River	Platte River from Lexington to Denman
Buffalo	Platte River Recovery Implementation Program	Endangered Species Act (ESA) Mitigation Land	Wyoming property	2 miles E, 1 mile S of Kearney; owned by WY State for mitigation purposes

**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Buffalo	FWS	Farmers Home Administration (FMHA) easement under the NWR	Wize	Section 12, T12N, R14W
Buffalo	FWS	FMHA easement under the NWR	Altaier, Freddie	Section 31, T10N, R17W
Buffalo	NAS	Wildlife Sanctuary	Lillian Annette Rowe Wildlife Sanctuary	South of Gibbon
Buffalo	NGPC	State Recreation Area	War Axe SRA	
Buffalo	NGPC	State Recreation Area	Union Pacific SRA	
Buffalo	NGPC	State Recreation Area	Windmill SRA	
Buffalo	NGPC	Wildlife Management Area	Bufflehead WMA	3.25 mile W of Minden INT
Buffalo	NGPC	Wildlife Management Area	Bassway Strip WMA	
Buffalo	NGPC	Wildlife Management Area	Coot Shallows WMA	1.75 mile W of Odessa INT
Buffalo	NGPC	Wildlife Management Area	Blue Hole WMA	
Buffalo	NGPC	Wildlife Management Area	Kea Lake WMA	SW Quad, Kearney INT
Buffalo	NGPC	Wildlife Management Area	Kea West WMA	N I-80, 1 mile W of Kearney INT
Buffalo	NGPC	Wildlife Management Area	East Odessa WMA	
Buffalo	NGPC	Wildlife Management Area	Denman Island WMA	
Buffalo	Nebraska Public Power District (NPPD)	ESA Mitigation Land	Elm Creek Island	
Buffalo	TNC	Project Area	Various parts Platte River	Parts of T8-R15
Buffalo	Platte River Recovery Implementation Program	ESA Mitigation Land	Bartels Tract	
Burt	NGPC	State Recreation Area	Pelican Point SRA	
Burt	NGPC	State Recreation Area	Summit Lake SRA	
Burt	NGPC	Wildlife Management Area	Middle Decatur Bend WMA	4 miles E of Decatur
Butler	NGPC	Wildlife Management Area	Skull Creek #1 WMA	2.5 miles N, 0.75 E of Brainard
Butler	NGPC	Wildlife Management Area	Skull Creek #2 WMA	2 miles N, 0.5 W of Abie

**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Butler	NGPC	Wildlife Management Area	Redtail WMA	
Cass	NGPC	State Recreation Area	Louisville Lakes SRA	
Cass	NGPC	State Park	Platte River State Park (SP)	
Cass	NGPC	State Park	Eugene T. Mahoney SP	
Cass	NGPC	Wildlife Management Area	Randall W. Schilling WMA	
Cass	NGPC	Wildlife Management Area	Cedar Creek Island	River access NE of Cedar
Cass	NGPC	Wildlife Management Area	Rakes Creek WMA	
Cass	NGPC	Wildlife Management Area	Rhoden WMA	NE of Plattsmouth
Cass	NGPC	Wildlife Management Area	William Gilmour (Tobacco Island)	3 miles S, 0.5 E of Plattsmouth
Cedar	NGPC	Wildlife Management Area	Wiseman WMA	
Cedar	NGPC	Wildlife Management Area	Tatanka WMA	
Cedar	NGPC	Wildlife Management Area	Chalkrock WMA	
Cedar	NPS	National Recreational River	Missouri River	Gavin's Point Dam downstream to Dixon county line
Chase	NGPC	State Recreation Area	Champion Lake SRA	
Chase	NGPC	State Recreation Area	Enders Reservoir SRA	
Chase	NGPC	State Historical Park	Champion Mill SHP	
Chase	NGPC	Wildlife Management Area	Enders Reservoir WMA	
Chase	NGPC	Wildlife Management Area	Wanamaker WMA	
Cherry	FWS	National Wildlife Refuge	Fort Niobrara NWR	
Cherry	FWS	National Wildlife Refuge	Valentine NWR	
Cherry	FWS	National Wilderness Area	Fort Niobrara	
Cherry	NGPC	State Historical Park	Bowring Ranch SHP	
Cherry	NGPC	State Park	Smith Falls SP	
Cherry	NGPC	State Recreation Area	Cottonwood Lake SRA	
Cherry	NGPC	State Recreation Area	Merritt Reservoir SRA	

**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Cherry	NGPC	Wildlife Management Area	Willow Lake WMA	
Cherry	NGPC	Wildlife Management Area	Ballards Marsh WMA	
Cherry	NGPC	Wildlife Management Area	Merritt Reservoir WMA	
Cherry	NGPC	Wildlife Management Area	Anderson Bridge WMA	
Cherry	NGPC	Wildlife Management Area	Rat and Beaver Lakes WMA	
Cherry	NGPC	Wildlife Management Area	Shell Lake WMA	
Cherry	NGPC	Wildlife Management Area	Cottonwood/Steverson WMA	27 miles N of Hyannis
Cherry	NGPC	Wildlife Management Area	Big Alkali Lake WMA	
Cherry	NGPC	Wildlife Management Area	Borman Bridge WMA	
Cherry	NGPC	Wildlife Management Area	Schlagel Creek WMA	11 miles S, 4 W of Valentine
Cherry	NPS	Identified in NPS Nationwide Rivers Inventory	Middle Loup River	Milburn Diversion Dam to source
Cherry	NPS	National Scenic River	Niobrara River	From Valentine downstream 76 miles
Cherry	NPS	Identified in NPS Nationwide Rivers Inventory	Niobrara River	Keya Paha River to Antelope Creek (Omit Cornell Dam and Reservoir)
Cherry	NPS	Identified in NPS Nationwide Rivers Inventory	Snake River	Niobrara River to source
Cherry	TNC	Project Area	Niobrara Valley Preserve	
Cherry	TNC	Project Area	Niobrara Valley Preserve/Horse Creek Fen	Parts of T27-R31, T33-R25 and R26, T34-R25 and R26
Cherry	U.S. Forest Service (USFS)	National Forest	Samuel McKelvie National Forest	
Clay	FWS	National Wildlife Refuge	McMurtrey Marsh NWR	
Clay	FWS	Waterfowl Production Area	Harvard WPA	
Clay	FWS	Waterfowl Production Area	Hultine WPA	
Clay	FWS	Waterfowl Production Area	Verona WPA	
Clay	FWS	Waterfowl Production Area	Lange WPA	



**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Clay	FWS	Waterfowl Production Area	Theesen WPA	
Clay	FWS	Waterfowl Production Area	Glenvil WPA	
Clay	FWS	Waterfowl Production Area	Massie WPA	
Clay	FWS	Waterfowl Production Area	Harms WPA	
Clay	FWS	Waterfowl Production Area	Moger WPA	
Clay	FWS	Waterfowl Production Area	Meadowlark WPA	
Clay	FWS	Waterfowl Production Area	Green Acres WPA	
Clay	FWS	Waterfowl Production Area	Eckhardt WPA	
Clay	FWS	Waterfowl Production Area	Schuck WPA	
Clay	FWS	Waterfowl Production Area	Smith WPA	
Clay	FWS	Waterfowl Production Area	Hansen WPA	
Clay	NGPC	Wildlife Management Area	Greenwing WMA	
Clay	NGPC	Wildlife Management Area	Bulrush WMA	
Clay	NGPC	Wildlife Management Area	Bluewing WMA	
Clay	NGPC	Wildlife Management Area	White-front WMA	
Clay	NGPC	Wildlife Management Area	Greenhead WMA	
Clay	NGPC	Wildlife Management Area	Kissinger Basin WMA	
Colfax	NGPC	Wildlife Management Area	Whitetail WMA	
Cuming	NGPC	Wildlife Management Area	Black Island WMA	
Custer	FWS	FMHA easement under the NWR	Scott, John J.	Section 10, T17N, R18W
Custer	FWS	FMHA easement under the NWR	Thorton	Section 9, T15N, R20W
Custer	NGPC	State Recreation Area	Arnold Lake SRA	
Custer	NGPC	State Recreation Area	Victoria Springs SRA	
Custer	NGPC	Wildlife Management Area	Pressey WMA	

**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Custer	NGPC	Wildlife Management Area	Arcadia Diversion Dam WMA	
Custer	NGPC	Wildlife Management Area	Myrtle E. Hall WMA	
Dakota	NGPC	Wildlife Management Area	Basswood Ridge WMA	
Dakota	NGPC	Wildlife Management Area	Omadi Bend WMA	2 miles E, 1 N of Homer
Dawes	NGPC	State Park	Chadron SP	
Dawes	NGPC	State Recreation Area	Box Butte Reservoir SRA	
Dawes	NGPC	State Park	Fort Robinson SP	
Dawes	NGPC	Wildlife Management Area	Ponderosa WMA	
Dawes	NGPC	Wildlife Management Area	Big Horn WMA	
Dawes	NGPC	Wildlife Management Area	Whitney Inlet WMA	4 miles W. of Whitney
Dawes	NGPC	Wildlife Management Area	Bordeaux WMA	3 miles E of Chadron
Dawes	TNC	Project Area	Carter Ranch	Parts of T31-R50
Dawes	USFS	National Forest	Oglala National Grassland	
Dawes	USFS	National Forest	Nebraska National Forest - Pine Ridge District	
Dawson	Central Nebraska Public Power and Irrigation District (CNPPID)	ESA Mitigation Land	Jeffrey Island	
Dawson	FWS	Whooping Crane Critical Habitat	Platte River	Platte River from Lexington to Denman
Dawson	NGPC	State Recreation Area	Johnson Lake SRA	
Dawson	NGPC	State Recreation Area	Gallagher Canyon SRA	
Dawson	NGPC	Wildlife Management Area	E. Willow Island WMA	
Dawson	NGPC	Wildlife Management Area	Willow Island WMA	
Dawson	NGPC	Wildlife Management Area	Cozad WMA	
Dawson	NGPC	Wildlife Management Area	W. Cozad WMA	
Dawson	NGPC	Wildlife Management Area	East Cozad WMA	S I-80, 1.5 miles E of Cozad
Dawson	NGPC	Wildlife Management Area	Dogwood WMA	

**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Dawson	NGPC	Wildlife Management Area	Darr WMA	NW Quad, Darr INT
Dawson	NGPC	Wildlife Management Area	East Darr WMA	0.5 miles E of Darr INT
Dawson	NGPC	Wildlife Management Area	Bitterns Call WMA	
Dawson	NGPC	Wildlife Management Area	Overton WMA	NW Quad Overton INT
Dawson	NGPC	Wildlife Management Area	Blue Heron WMA	
Dawson	NGPC	Wildlife Management Area	Darr Strip WMA	
Dawson	NGPC	Wildlife Management Area	Plum Creek WMA	10 SW of Lexington
Dawson	NGPC	Wildlife Management Area	West Elm Creek WMA	N I-80, SW Elm Creek
Dawson	NGPC	Wildlife Management Area	East Gothenburg WMA	4 E Gothenburg INT
Dawson	NPPD	ESA Mitigation Land	Cottonwood Ranch	
Dawson	NPPD	ESA Mitigation Land	Overton Island	
Dawson	NPPD	ESA Mitigation Land	Lexington Island	
Deuel	NGPC	Wildlife Management Area	Goldenrod WMA	1 mile S, 2 E of Chappel
Deuel	NGPC	Wildlife Management Area	Bittersweet WMA	
Deuel	NGPC	Wildlife Management Area	Goldeneye WMA	
Dixon	NGPC	State Park	Ponca SP	
Dixon	NGPC	Wildlife Management Area	Buckskin Hills WMA	
Dixon	NGPC	Wildlife Management Area	Mulberry Bend WMA	4 mile N, 3 W of Newcastle
Dixon	NPS	National Recreational River	Missouri River	From Cedar county line downstream to Ponca State Park (NE)
Dodge	FWS	FMHA easement under the NWR	Thomsen, Vern	Section 32, T19N, R7E
Dodge	FWS	FMHA easement under the NWR	Tuma	SE 1/4 Section 23, T19N, R5E
Dodge	FWS	Waterfowl Production Area	Haseman WPA	
Dodge	NGPC	State Recreation Area	Dead Timber SRA	
Dodge	NGPC	State Recreation Area	Fremont Lakes SRA	

**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Dodge	NGPC	Wildlife Management Area	Powder Horn WMA	
Douglas	NGPC	State Recreation Area	Two Rivers SRA	
Douglas	NGPC	Wildlife Management Area	Two Rivers WMA	
Dundy	FWS	FMHA easement under the NWR	Jones, Daniel	Sections 29, 20, T1N, R41/42W
Dundy	NGPC	State Recreation Area	Rock Creek Lake SRA	
Fillmore	FWS	Waterfowl Production Area	Real WPA	
Fillmore	FWS	Waterfowl Production Area	Griess WPA	
Fillmore	FWS	Waterfowl Production Area	Rauscher WPA	
Fillmore	FWS	Waterfowl Production Area	Rolland WPA	
Fillmore	FWS	Waterfowl Production Area	Morphy WPA	
Fillmore	FWS	Waterfowl Production Area	Brauning WPA	
Fillmore	FWS	Waterfowl Production Area	Wilkins WPA	
Fillmore	FWS	Waterfowl Production Area	Krause WPA	
Fillmore	FWS	Waterfowl Production Area	Mallard Haven WPA	
Fillmore	FWS	Waterfowl Production Area	Millers Pond WPA	
Fillmore	NGPC	Wildlife Management Area	Bluebill WMA	
Fillmore	NGPC	Wildlife Management Area	Sandpiper WMA	
Fillmore	NGPC	Wildlife Management Area	Redhead WMA	
Fillmore	NGPC	Wildlife Management Area	Sora WMA	
Fillmore	NGPC	Wildlife Management Area	Marsh Hawk WMA	
Fillmore	TNC	Project Area	Marsh Hawk WMA	
Fillmore	TNC	Project Area	Real WMA	
Franklin	FWS	Waterfowl Production Area	Ritterbush WPA	
Franklin	FWS	Waterfowl Production Area	Macon Lakes WPA	
Franklin	FWS	Waterfowl Production Area	Quadhamer WPA	

**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Franklin	NGPC	Wildlife Management Area	Limestone Bluffs WMA	
Franklin	NGPC	Wildlife Management Area	Ash Grove WMA	
Frontier	NGPC	State Recreation Area	Red Willow Reservoir SRA	
Frontier	NGPC	State Recreation Area	Medicine Creek SRA	
Frontier	NGPC	Wildlife Management Area	Red Willow Reservoir WMA	
Frontier	NGPC	Wildlife Management Area	Medicine Creek WMA	
Furnas	FWS	FMHA easement under the NWR	Avon Arms	Sections 2, 11, 10, T4N, R23W
Furnas	NGPC	Wildlife Management Area	Oxford WMA	
Furnas	NGPC	Wildlife Management Area	Burton's Bend WMA	Along the Republican River
Gage	FWS	FMHA easement under the NWR	Arlington, Norman	Section 10, T2N, R7E
Gage	FWS	FMHA easement under the NWR	Meints	Sections 25, 26, T2N, R6E
Gage	FWS	FMHA easement under the NWR	Virmar Farms	Sections 3, 4, 33, T2N, R5E
Gage	NGPC	State Recreation Area	Rockford SRA	
Gage	NGPC	Wildlife Management Area	Iron Horse Trail (IHT) WMA	
Gage	NGPC	Wildlife Management Area	Arrowhead WMA	
Gage	NGPC	Wildlife Management Area	Diamond Lake WMA	
Gage	NGPC	Wildlife Management Area	Donald Whitney Memorial WMA	3.5 miles W of Odell
Gage	NPS	National Monument	Homestead National Monument of America	4.5 miles west of Beatrice
Garden	FWS	National Wildlife Refuge	Crescent Lake NWR	
Garden	NGPC	State Historical Park	Bluewater Battlefield SHP	
Garden	NGPC	State Historical Park	Ash Hollow SHP	
Garden	TNC	Project Area	Graves Ranch	Parts of T20-R45
Garfield	NGPC	State Recreation Area	Calamus Reservoir SRA	
Garfield	NGPC	Wildlife Management Area	Mirdan Canal WMA	

**TABLE A.2.5**  
**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Garfield	NPS	Identified in NPS Nationwide Rivers Inventory	Calamus River	North Loup River to source
Gosper	FWS	Whooping Crane Critical Habitat	Platte River	Platte River from Lexington to Denman
Gosper	FWS	Waterfowl Production Area	Elley WPA	
Gosper	FWS	Waterfowl Production Area	Peterson WPA	
Gosper	FWS	Waterfowl Production Area	Victor Lakes WPA	
Gosper	NGPC	State Recreation Area	East Phillips Canyon SRA	8 miles S of Lexington
Gosper	NGPC	State Recreation Area	Johnson Lake SRA	
Gosper	NGPC	State Recreation Area	Elwood Reservoir SRA	
Gosper	NGPC	Wildlife Management Area	Plum Creek WMA	
Grant	NGPC	Wildlife Management Area	Frye Lake WMA	
Grant	NGPC	Wildlife Management Area	De Fair Lake WMA	1.5 miles E, 3 S of Hyannis
Grant	NPS	Natural Landmark	Nebraska Sandhills	Immediately S. of Hyannis
Greeley	NGPC	Wildlife Management Area	Davis Creek WMA	
Hall	FWS	FMHA easement under the NWR	Hannon	Sections 9, 10, T9N, R12W
Hall	FWS	Waterfowl Production Area	Hannon WPA	
Hall	NGPC	State Recreation Area	Cheyenne SRA	
Hall	NGPC	State Recreation Area	Mormon Island SRA	
Hall	NGPC	Wildlife Management Area	Cornhusker Farm WMA	
Hall	NGPC	Wildlife Management Area	Cattail WMA	3 miles W Alda INT
Hall	NGPC	Wildlife Management Area	Wood River West WMA	4 miles S. of Wood River
Hall	NGPC	Wildlife Management Area	Martin's Reach WMA	
Hall	NGPC	Wildlife Management Area	Loch Linda WMA	
Hall	TNC	Project Area	Various Platte River	Parts of T9-R11, T10-R10
Hall	Platte River Crane Trust	Wildlife Management Area	Platte River Crane Trust	
Hamilton	FWS	FMHA easement under the NWR	Mowitz, Eldred	Section 10, T12N, R5W

**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Hamilton	FWS	FMHA easement under the NWR	Larson, Steven	Section 18, T10N, R6W
Hamilton	FWS	Waterfowl Production Area	Troester Basin WPA	
Hamilton	FWS	Waterfowl Production Area	Springer WPA	
Hamilton	FWS	Waterfowl Production Area	Nelson WPA	
Hamilton	NGPC	Wildlife Management Area	Deep Well WMA	
Hamilton	NGPC	Wildlife Management Area	Pintail WMA	
Hamilton	NGPC	Wildlife Management Area	Gadwall WMA	
Harlan	COE	Large Reservoir	Harlan County Lake	
Harlan	NGPC	Wildlife Management Area	Burton's Bend WMA	Along the Republican River
Harlan	NGPC	Wildlife Management Area	Southeast Sacramento WMA	
Harlan	NGPC	Wildlife Management Area	South Sacramento WMA	
Hayes	NGPC	Wildlife Management Area	Frenchman WMA	1.5 miles N of Palisade
Hayes	NGPC	Wildlife Management Area	Hayes Center WMA	
Hitchcock	NGPC	State Recreation Area	Swanson Reservoir SRA	
Hitchcock	NGPC	Wildlife Management Area	Swanson Reservoir WMA	
Holt	NGPC	State Recreation Area	Atkinson Lake SRA	
Holt	NGPC	Wildlife Management Area	Dry Creek WMA	
Holt	NGPC	Wildlife Management Area	Redbird WMA	
Holt	NGPC	Wildlife Management Area	Spencer Dam WMA	22 miles N of O'Neill
Holt	NGPC	Wildlife Management Area	Goose Lake WMA	2 miles N of Royal
Holt	NPS	Identified in NPS Nationwide Rivers Inventory	Niobrara River	Keya Paha River to Antelope Creek
Holt	NPS	Identified in NPS Nationwide Rivers Inventory	Niobrara River	Missouri River to Keya Paha River
Hooker	NPS	Identified in NPS Nationwide Rivers Inventory	Middle Loup River	Milbourn Diversion Dam to source

**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Howard	FWS	FMHA easement under the NWR	Gillilavd	Section 1, T14N, R12W
Howard	NGPC	State Recreation Area	North Loup SRA	
Howard	NGPC	Wildlife Management Area	Harold W. Andersen WMA	
Howard	NGPC	Wildlife Management Area	Loup Bottoms/Junction WMA	
Howard	NGPC	Wildlife Management Area	Leonard A. Koziol WMA	1.5 miles E, 3 N of St. Paul
Howard	NGPC	Wildlife Management Area	Marsh Wren WMA	1.5 miles S, 2 E of Elba
Jefferson	NGPC	State Recreation Area	Rock Creek Station SRA	
Jefferson	NGPC	State Recreation Area	Alexandria Lakes SRA	
Jefferson	NGPC	State Historical Park	Rock Creek Station SHP	
Jefferson	NGPC	Wildlife Management Area	Rock Glen WMA	
Jefferson	NGPC	Wildlife Management Area	Rose Creek WMA	
Jefferson	NGPC	Wildlife Management Area	Alexandria Lakes WMA	
Jefferson	NGPC	Wildlife Management Area	Flathead WMA	1 mile S. of Fairbury
Johnson	NGPC	Wildlife Management Area	Hickory Ridge WMA	
Johnson	NGPC	Wildlife Management Area	Osage WMA	
Johnson	NGPC	Wildlife Management Area	Twin Oaks WMA	
Kearney	FWS	Whooping Crane Critical Habitat	Platte River	Platte River from Lexington to Denman
Kearney	FWS	ESA Mitigation Land	Wyoming property	2 miles E, 1 mile S of Kearney; owned by WY State for mitigation purposes
Kearney	FWS	FMHA easement under the NWR	Nickels Brothers	NW 1/4 Section 7, T7N, R15W
Kearney	FWS	FMHA easement under the NWR	Johansen, Bruce	Section 11, T6N, R14W
Kearney	FWS	Waterfowl Production Area	Killdeer WPA	
Kearney	FWS	Waterfowl Production Area	Clark WPA	
Kearney	FWS	Waterfowl Production Area	Youngson WPA	
Kearney	FWS	Waterfowl Production Area	Frerichs WPA	



**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Kearney	FWS	Waterfowl Production Area	Lindau WPA	
Kearney	FWS	Waterfowl Production Area	Jensen WPA	
Kearney	FWS	Waterfowl Production Area	Gleason WPA	
Kearney	FWS	Waterfowl Production Area	Bluestem WPA	
Kearney	FWS	Waterfowl Production Area	Prairie Dog WPA	
Kearney	NGPC	State Recreation Area	Fort Kearney SRA	
Kearney	NGPC	State Historical Park	Fort Kearney SHP	
Kearney	NGPC	Wildlife Management Area	Northeast Sacramento WMA	
Keith	NGPC	State Recreation Area	Lake McConaughy SRA	
Keith	NGPC	State Recreation Area	Lake Ogallala SRA	
Keith	NGPC	Wildlife Management Area	Big Springs WMA	0.5 mile E of Big Springs
Keith	NGPC	Wildlife Management Area	Clear Creek WMA	
Keith	NGPC	Wildlife Management Area	Ogallala Strip WMA	
Keya Paha	FWS	FMHA easement under the NWR	Johnson, Cecil	Section 5, T34N, R30W
Keya Paha	FWS	FMHA easement under the NWR	Mead, Darrell	Sections 20, 21, 28, 29, T32N, R19W
Keya Paha	FWS	FMHA easement under the NWR	Johnson, Cecil	Section 32, T35N, R30W
Keya Paha	NGPC	Wildlife Management Area	Thomas Creek WMA	
Keya Paha	NGPC	Wildlife Management Area	Holt Creek WMA	6 miles W, 5 N of Burton
Keya Paha	NPS	Identified in NPS Nationwide Rivers Inventory	Niobrara River	Keya Paha River to Antelope Creek (Omit Cornell Dam & Reservoir)
Keya Paha	NPS	National Scenic River	Niobrara River	From Valentine 76 miles downstream
Keya Paha	TNC	Project Area	Niobrara Valley Preserve	Parts of T33-R23 and R-24
Kimball	NGPC	State Recreation Area	Oliver Reservoir SRA	
Knox	BIA	Indian Reservation	Santee Indian Reservation	
Knox	FWS	FMHA easement under the NWR	Wagner, Raymond 11C	Section 8, T29N, R6W

**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Knox	FWS	FMHA easement under the NWR	Wagner, Raymond 10C	SE 1/4 Section 6, T29N, R6W
Knox	FWS	FMHA easement under the NWR	Larson Farms	Sections 19, 20, T31N, R5W
Knox	NGPC	State Recreation Area	Lewis and Clark SRA	
Knox	NGPC	State Park	Niobrara SP	
Knox	NGPC	Wildlife Management Area	Greenvale WMA	
Knox	NGPC	Wildlife Management Area	Niobrara WMA	
Knox	NGPC	Wildlife Management Area	Bazile Creek WMA	
Knox	NGPC	Wildlife Management Area	Bohemia Prairie WMA	
Knox	NGPC	Wildlife Management Area	Ferry Landing WMA	3 miles E of Niobrara
Knox	NGPC	Wildlife Management Area	Verdel Landing WMA	2 miles E, 2 N of Verdel
Knox	NPS	National Recreational River	Missouri River	Running Water SD to Fort Randall Dam
Knox	NPS	Identified in NPS Nationwide Rivers Inventory	Niobrara River	Missouri River to Keya Paha River
Lancaster	NGPC	State Recreation Area	Conestoga Lake SRA	
Lancaster	NGPC	State Recreation Area	Stagecoach Lake SRA	
Lancaster	NGPC	State Recreation Area	Bluestem Lake SRA	
Lancaster	NGPC	State Recreation Area	Olive Creek Lake SRA	
Lancaster	NGPC	State Recreation Area	Pawnee Lake SRA	
Lancaster	NGPC	State Recreation Area	Branched Oak Lake SRA	
Lancaster	NGPC	State Recreation Area	Wagon Train Lake SRA	
Lancaster	NGPC	Wildlife Management Area	Wildwood WMA	
Lancaster	NGPC	Wildlife Management Area and Critical Habitat	Arbor Lake WMA	Saline wetlands of eastern Nebraska; unique habitat for Salt Creek Tiger Beetle (Federally listed) & saltwort (State listed)
Lancaster	NGPC	Wildlife Management Area	Branched Oak Lake WMA	
Lancaster	NGPC	Wildlife Management Area	Yankee Hill WMA	

**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Lancaster	NGPC	Wildlife Management Area and Critical Habitat	Jack Sinn Memorial WMA	Saline wetlands of eastern Nebraska; unique habitat for Salt Creek Tiger Beetle (Federally listed) & saltwort (State listed)
Lancaster	NGPC	Wildlife Management Area	Killdeer WMA	
Lancaster	NGPC	Wildlife Management Area	Hedgefield WMA	
Lancaster	NGPC	Wildlife Management Area	Teal Lake WMA	
Lancaster	TNC	Project Area	Little Salt Fork Marsh	Parts of T11 and 12-R6; Saline Wetlands of eastern Nebraska
Lincoln	NGPC	State Historical Park	Buffalo Bill Ranch SHP	
Lincoln	NGPC	State Recreation Area	Lake Maloney Reservoir SRA	
Lincoln	NGPC	State Recreation Area	Sutherland Reservoir SRA	
Lincoln	NGPC	State Recreation Area	Buffalo Bill Ranch SRA	
Lincoln	NGPC	Wildlife Management Area	West Gothenburg WMA	N & S I-80, 3 miles W of Brady
Lincoln	NGPC	Wildlife Management Area	Sutherland Reservoir WMA	
Lincoln	NGPC	Wildlife Management Area	East Sutherland WMA	
Lincoln	NGPC	Wildlife Management Area	Brady WMA	SE Quad, Brady INT
Lincoln	NGPC	Wildlife Management Area	West Brady WMA	S I-80, 3 miles W of Brady
Lincoln	NGPC	Wildlife Management Area	North River WMA	
Lincoln	NGPC	Wildlife Management Area	Muskrat Run WMA	
Lincoln	NGPC	Wildlife Management Area	Hershey WMA	
Lincoln	NGPC	Wildlife Management Area	East Hershey WMA	
Lincoln	NGPC	Wildlife Management Area	West Hershey WMA	N I-80, 0.5 mile W Hershey INT
Lincoln	NGPC	Wildlife Management Area	Birdwood Lake WMA	
Lincoln	NGPC	Wildlife Management Area	Platte WMA	
Lincoln	NGPC	Wildlife Management Area	Box Elder Canyon WMA	

**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Lincoln	NGPC	Wildlife Management Area	Wellfleet WMA	
Lincoln	NGPC	Wildlife Management Area	Pawnee Slough WMA	
Lincoln	NGPC	Wildlife Management Area	Cottonwood Canyon WMA	
Lincoln	NGPC	Wildlife Management Area	Chester Island WMA	
Lincoln	NGPC	Wildlife Management Area	Jeffrey Canyon WMA	
Lincoln	NGPC	Wildlife Management Area	Hansen Memorial Reserve WMA	
Lincoln	NGPC	Wildlife Management Area	Cedar Valley WMA	
Lincoln	NGPC	Wildlife Management Area	Fremont Slough WMA	N I-80, 4.5 miles E of North Platte
Lincoln	NGPC	Wildlife Management Area	West Maxwell WMA	N I-80, 1 mile W Maxwell INT
Lincoln	NPS	Natural Landmark	Kissected Loess Plains	17 miles SSW of Brady
Lincoln	TNC	Project Area	Muskrat Run WMA	302 acres, N Platte River
Lincoln	TNC	Project Area	Kelly Ranch	Parts of T14-R33 and R34
Loup	NGPC	State Recreation Area	Calamus Reservoir SRA	
Loup	NGPC	Wildlife Management Area	Calamus Reservoir WMA	
Loup	NGPC	Wildlife Management Area	Almeria Meadow WMA	
Loup	NGPC	Wildlife Management Area	Kent Diversion Dam WMA	
Loup	NGPC	Wildlife Management Area	Myrtle E. Hall WMA	
Loup	NPS	Identified in NPS Nationwide Rivers Inventory	Calamus River	North Loup River to source
Madison	FWS	FMHA easement under the NWR	Muhs	Section 24, T23N, R2W
Madison	FWS	Topeka Shiner Critical Habitat	Taylor Creek	the 6 mi. upstream from confluence w/ Union Creek
Madison	NGPC	Wildlife Management Area	Oak Valley WMA	
Madison	NGPC	Wildlife Management Area	Elkhorn WMA	N edge of Norfolk
Madison	NGPC	Wildlife Management Area	Yellowbanks WMA	
Merrick	NGPC	Wildlife Management Area	Bruce Cowgill WMA	1.5 mile E of Silver Creek
Merrick	NGPC	Wildlife Management Area	Lone Tree WMA	Inaccessible (island?)

**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Merrick	NGPC	Wildlife Management Area	Silver Creek WMA	
Morrill	NGPC	State Recreation Area	Bridgeport SRA	
Morrill	NGPC	Wildlife Management Area	Chet and Jane Fliesbach WMA	
Morrill	NGPC	Wildlife Management Area	Trupp WMA	
Morrill	NPS	National Historic Site	Chimney Rock National Historic Site	19 miles east of Gering on Hwy 92
Nance	NGPC	Wildlife Management Area	Loup Lands (Loup River PPD) WMA	
Nance	NGPC	Wildlife Management Area	Sunny Hollow WMA	
Nance	NGPC	Wildlife Management Area	Council Creek WMA	6.5 miles W of Genoa
Nance	NGPC	Wildlife Management Area	Prairie Wolf WMA	
Nemaha	NGPC	State Park	Indian Cave SP	
Nemaha	NGPC	State Recreation Area	Brownville SRA	
Nemaha	NGPC	Wildlife Management Area	Peru Bottoms WMA	1 mile E, 1 N of Peru
Nemaha	NGPC	Wildlife Management Area	Aspinwall Bend WMA	
Nuckolls	NGPC	Wildlife Management Area	Smartweed Marsh West WMA	
Nuckolls	NGPC	Wildlife Management Area	Smartweed Marsh WMA	
Otoe	NGPC	State Recreation Area	Riverview Marina SRA	
Otoe	NGPC	State Historical Park	Arbor Lodge SHP	
Otoe	NGPC	Wildlife Management Area	Triple Creek WMA	
Otoe	NGPC	Wildlife Management Area	Wilson Creek WMA	2 mile N, 2 W, 0.5 N of Dunbar
Otoe	NGPC	Wildlife Management Area	Hamburg Bend WMA	1 mile S, 4.5 E, 1 S, 0.5 E of Nebraska City
Pawnee	NGPC	Wildlife Management Area	Burchard WMA	
Pawnee	NGPC	Wildlife Management Area	Bowwood WMA	
Pawnee	NGPC	Wildlife Management Area	Iron Horse Trail WMA	
Pawnee	NGPC	Wildlife Management Area	Mayberry WMA	
Pawnee	NGPC	Wildlife Management Area	Table Rock WMA	

**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Pawnee	NGPC	Wildlife Management Area	Taylor's Branch WMA	
Pawnee	NGPC	Wildlife Management Area	Pawnee Prairie WMA	
Pawnee	NGPC	Wildlife Management Area	Prairie Knoll WMA	
Pawnee	NGPC	Wildlife Management Area	Lores Branch WMA	
Pawnee	TNC	Project Area	Pawnee Prairie WMA	
Phelps	FWS	Whooping Crane Critical Habitat	Platte River	Platte River from Lexington to Denman
Phelps	FWS	Waterfowl Production Area	Johnson WPA	
Phelps	FWS	Waterfowl Production Area	Funk WPA	
Phelps	FWS	Waterfowl Production Area	Atlanta WPA	
Phelps	FWS	Waterfowl Production Area	Jones WPA	
Phelps	FWS	Waterfowl Production Area	Cottonwood WPA	
Phelps	FWS	Waterfowl Production Area	Linder WPA	
Phelps	NGPC	State Recreation Area	Sandy Channel SRA	
Phelps	NGPC	Wildlife Management Area	High Basin WMA	
Phelps	NGPC	Wildlife Management Area	West Sacramento WMA	
Phelps	NGPC	Wildlife Management Area	Sacramento - Wilcox WMA	
Phelps	NPPD	ESA Mitigation Land	Cottonwood Ranch	
Phelps	TNC	Project Area	Anderson	Part of T8-R19
Pierce	NGPC	State Recreation Area	Willow Creek SRA	
Platte	NGPC	Wildlife Management Area	Lookingglass Creek WMA	
Platte	NGPC	Wildlife Management Area	George Syas WMA	
Platte	NGPC	Wildlife Management Area	Flat Water Landing WMA	1 mile S. of Columbus
Platte	NGPC	Wildlife Management Area	Wilkinson WMA	5 miles W, 1 N of Columbus
Polk	FWS	FMHA easement under the NWR	Viergutz, James R.	Sections 11, 12, 13, T14N, R4W
Polk	FWS	FMHA easement under the NWR	Warner Farms	Section 33, T13N, R3W

**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Polk	FWS	FMHA easement under the NWR	Anderson, Bruce L.	SE 1/4 Section 34, T14N, R2W
Polk	NGPC	Wildlife Management Area	Flatsedge WMA	2.5 miles W, 2 N of Shelby
Red Willow	NGPC	State Recreation Area	Red Willow Reservoir SRA	
Red Willow	NGPC	Wildlife Management Area	Bartley Diversion Dam WMA	
Red Willow	NGPC	Wildlife Management Area	Burton's Bend WMA	Along the Republican River
Red Willow	NGPC	Wildlife Management Area	Red Willow Reservoir WMA	
Red Willow	NGPC	Wildlife Management Area	Red Willow Diversion Dam WMA	
Richardson	NGPC	State Recreation Area	Verdon Lake SRA	
Richardson	NGPC	State Park	Indian Cave SP	
Richardson	NGPC	Wildlife Management Area	Four-Mile Creek WMA	
Richardson	NGPC	Wildlife Management Area	Margrave WMA	
Richardson	NGPC	Wildlife Management Area	Iron Horse Trail WMA	
Richardson	NGPC	Wildlife Management Area	South Fork WMA	2.5 miles S, 3.5 W of Dawson
Richardson	NGPC	Wildlife Management Area	Kinters Ford WMA	
Richardson	TNC	Project Area	Rulo Bluffs	
Richardson	TNC	Project Area	Rulo Bluffs	Parts of T1-R18
Rock	FWS	National Wildlife Refuge	John W. & Louise Seier NWR	
Rock	NAS	Wildlife Sanctuary	Niobrara River	
Rock	NGPC	Wildlife Management Area	Fred Thomas WMA	11.5 miles N of Bassett on Hwy 7
Rock	NGPC	Wildlife Management Area	Twin Lakes (Rock) WMA	20 miles S. of Bassett
Rock	NPS	Identified in NPS Nationwide Rivers Inventory	Lone Pine Creek	Niobrara River to source
Rock	NPS	Identified in NPS Nationwide Rivers Inventory	Niobrara River	Keya Paha River to Antelope Creek
Rock	NPS	Identified in NPS Nationwide Rivers Inventory	Calamus River	North Loup River to source
Saline	FWS	Waterfowl Production Area	Schwisow WPA	
Saline	NGPC	Wildlife Management Area	Swan Creek WMA	

**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Saline	NGPC	Wildlife Management Area	Divoky Acres WMA	9 miles W, 2.5 N of Wilber
Saline	NGPC	Wildlife Management Area	Shady Trail WMA	1 mile W, 4 N, 0.5 W, 0.5 N of Crete
Sarpy	NGPC	State Recreation Area	Schramm Park SRA	
Sarpy	NGPC	Wildlife Management Area	Louisville WMA	0.5 mile NW of Louisville
Sarpy	NPS	Natural Landmark	Fontenelle Forest	1 Mile S. of Omaha
Saunders	FWS	FMHA easement under the NWR	Keller, Lynn	Section 1, T16N, R7E
Saunders	FWS	FMHA easement under the NWR	Thomas Farms	Sections 12,13, T13N, R9E
Saunders	FWS	FMHA easement under the NWR	Keller, Lynn	Section 6, T16N, R8E
Saunders	NGPC	State Recreation Area	Pioneer SRA	
Saunders	NGPC	State Recreation Area	Memphis Lake SRA	
Saunders	NGPC	Wildlife Management Area and Critical Habitat	Jack Sinn Memorial WMA	Saline wetlands of eastern Nebraska; unique habitat for Salt Creek Tiger Beetle (Federally listed) & saltwort (State listed)
Saunders	NGPC	Wildlife Management Area	Memphis Lake WMA	
Saunders	NGPC	Wildlife Management Area	Bramble WMA	
Saunders	NGPC	Wildlife Management Area	Catfish Run WMA	1.2 mile E of Ashland
Saunders	NGPC	Wildlife Management Area	Larkspur WMA	3 miles W of Valparaiso
Scotts Bluff	FWS	National Wildlife Refuge	North Platte NWR	
Scotts Bluff	NGPC	State Recreation Area	Lake Minutere SRA	
Scotts Bluff	NGPC	State Recreation Area	Wildcat Hills SRA	
Scotts Bluff	NGPC	Wildlife Management Area	Nine Mile Creek WMA	
Scotts Bluff	NGPC	Wildlife Management Area	Kiowa WMA	
Scotts Bluff	NGPC	Wildlife Management Area	Cedar Canyon WMA	2.5 miles S and 4.5 W of Gering
Scotts Bluff	NPS	National Monument	Scotts Bluff National Monument	5 miles SW of Scotts Bluff
Scotts Bluff	TNC	Project Area	Kiowa WMA	
Seward	FWS	Waterfowl Production Area	Tamora Basin WPA	



**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Seward	FWS	Waterfowl Production Area	Freeman Lakes WPA	
Seward	NGPC	State Recreation Area	Blue River SRA	
Seward	NGPC	Wildlife Management Area	Straight Water WMA	
Seward	NGPC	Wildlife Management Area	Oak Glen WMA	
Seward	NGPC	Wildlife Management Area	Bur Oak WMA	
Seward	NGPC	Wildlife Management Area	Twin Lakes WMA	
Seward	NGPC	Wildlife Management Area	Blue Bluff WMA	3 miles S, 1 E, 1 N of Milford
Seward	NGPC	Wildlife Management Area	North Lake Basin WMA	
Sheridan	NGPC	State Recreation Area	Walgren Lake SRA	
Sheridan	NGPC	Wildlife Management Area	Smith Lake WMA	
Sheridan	NGPC	Wildlife Management Area	Metcalf WMA	
Sheridan	NPS	Identified in NPS Nationwide Rivers Inventory	SNAKE RIVER	Niobrara River to source
Sherman	NGPC	State Recreation Area	Bowman Lake SRA	
Sherman	NGPC	State Recreation Area	Sherman Reservoir SRA	
Sherman	NGPC	Wildlife Management Area	Sherman Reservoir WMA	
Sioux	NGPC	State Park	Fort Robinson SP	
Sioux	NGPC	State Recreation Area	James Ranch SRA	
Sioux	NGPC	Wildlife Management Area	Peterson WMA	
Sioux	NGPC	Wildlife Management Area	Gilbert-Baker WMA	
Sioux	NPS	Identified in NPS Nationwide Rivers Inventory	Niobrara River	Entire segment within Agate Fossil Beds National Monument
Sioux	NPS	National Monument	Agate Fossil Beds National Monument	20 miles north of Harrison
Sioux	TNC	Project Area	Cherry Ranch	Parts of T29 and 30-R56
Sioux	USFS	National Forest/Grassland	Oglala National Grassland	
Sioux	USFS	National Wilderness Area	Soldier Creek Wilderness	Nebraska NF

**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Stanton	NGPC	Wildlife Management Area	Red Fox WMA	
Stanton	NGPC	Wildlife Management Area	Wood Duck WMA	
Thayer	FWS	FMHA easement under the NWR	Gerdes, Don	Section 9, T2N, R2W
Thayer	NGPC	Wildlife Management Area	Prairie Marsh WMA	
Thayer	NGPC	Wildlife Management Area	Father Hupp WMA	
Thayer	NGPC	Wildlife Management Area	Meridian WMA	
Thayer	NGPC	Wildlife Management Area	Prairie Marsh West WMA	
Thayer	NGPC	Wildlife Management Area	Little Blue WMA	
Thayer	NGPC	Wildlife Management Area	Dry Sandy WMA	2 miles E, 0.75 N of Bruning
Thayer	NGPC	Wildlife Management Area	Little Blue East WMA	1.5 miles E of Hebron
Thayer	TNC	Project Area	Prairie Marsh WMA	
Thomas	NPS	Identified in NPS Nationwide Rivers Inventory	Dismal River	Middle Loup Rive to source
Thomas	NPS	Identified in NPS Nationwide Rivers Inventory	Middle Loup River	Milburn Diversion Dam to source
Thomas	USFS	National Forest	Nebraska National Forest - Bessey District	
Thurston	BIA	Indian Reservation	Omaha Indian Reservation	
Thurston	BIA	Indian Reservation	Winnebago Indian Reservation	
Valley	FWS	FMHA easement under the NWR	Plate, Willis	Section 34, T17N, R13W
Valley	FWS	FMHA easement under the NWR	Wayne, Gregory	Section 33, T20N, R13W
Valley	FWS	FMHA easement under the NWR	Wayne, Gregory	Sections 3 and 4, T19N, R13W
Valley	NGPC	State Historical Park	Fort Hartsuff SHP	
Valley	NGPC	Wildlife Management Area	Davis Creek WMA	
Valley	NGPC	Wildlife Management Area	Scotia Canal WMA	
Washington	FWS	National Wildlife Refuge	Boyer Chute NWR	
Washington	FWS	National Wildlife Refuge	DeSoto NWR	

**TABLE A.2.5**

**ENVIRONMENTALLY SENSITIVE AREAS – NEBRASKA**

COUNTY	AGENCY	TYPE	NAME	NOTES
Washington	NGPC	State Historical Park	Fort Atkinson SHP	
Washington	TNC	Project Area	Cuming City Cemetery	
Wayne	NGPC	Wildlife Management Area	Sioux Strip WMA	
Webster	NGPC	Wildlife Management Area	Indian Creek WMA	
Webster	NGPC	Wildlife Management Area	Narrows WMA	
Webster	NGPC	Wildlife Management Area	Elm Creek WMA	
Webster	TNC	Project Area	Willa Cather Memorial Prairie	
Webster	TNC	Project Area	Willa Cather Memorial Prairie	Part of T1-R11
Wheeler	NGPC	State Recreation Area	Pibel Lake SRA	
York	FWS	FMHA easement under the NWR	Gocke, Raymond	Section 33, T12N, R1W
York	FWS	FMHA easement under the NWR	Jack R. Anstine	Section 28, T11N, R2W
York	FWS	FMHA easement under the NWR	Gocke, Raymond	Section 28, T12N, R1W
York	FWS	FMHA easement under the NWR	Thiessen, Harvey	Section 9, T9N, R2W
York	FWS	Waterfowl Production Area	Sinninger WPA	
York	FWS	Waterfowl Production Area	County Line WPA	
York	FWS	Waterfowl Production Area	Heron WPA	
York	FWS	Waterfowl Production Area	Waco WPA	
York	NGPC	Wildlife Management Area	Renquist Basin WMA	
York	NGPC	Wildlife Management Area	Kirkpatrick Basin - S WMA	
York	NGPC	Wildlife Management Area	Kirkpatrick Basin - N WMA	
York	NGPC	Wildlife Management Area	Spikerush WMA	
York	NGPC	Wildlife Management Area	Hidden Marsh WMA	

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**APPENDIX A.2.a**

**EXAMPLE HABITAT FACT SHEET**

**UPPER MISSISSIPPI RIVER BASIN  
ASSOCIATION DEEP MARSH ANNUAL FACT  
SHEET**

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# INLAND STRANDED OIL HABITAT FACT SHEET FOR RESPONSE: DEEP MARSH ANNUAL



## Indicator Species



wild rice (*Zizania*)

## I. Habitat Description

The deep marsh annuals habitat includes portions of lakes, ponds, marshes, or backwaters that are >10% vegetated with wild rice (*Zizania*). While this habitat is dominated by wild rice, it may have inclusions of submersed, non-rooted-floating aquatics, rooted-floating aquatics, or emergent vegetation. Deep marsh annuals are typically found in areas which are flooded semipermanently and have water depths between 0.25 and 2 meters with a silt or mucky bottom. During normal water conditions, there is little flow, though there can be wind-generated currents and stronger flows at inlets and outlets. During flood conditions, these habitats can be connected to rivers or streams, have strong currents, and the potential to carry large amounts of debris.



## II. Sensitivity to Oil Spills

The deep marsh annuals habitat is highly sensitive to oil spills. This biologically diverse habitat provides a home to many plants and animal species, including amphibians, reptiles, fish, invertebrates as well as a wide variety of migratory waterfowl and plants. Many animal species use wetlands for reproductive and early life phases, during which they are most susceptible to the effects of oil. Significant loss of this habitat would greatly affect the populations of these animals and consequently, the local ecology. During normal water levels, oil would be less likely to penetrate water-saturated soils; during floods, oil could be deposited in areas that dry out after the flood, and penetrate the loose, organic-rich surface soils.

### References/Additional Information:

General Classification Handbook for Floodplain Vegetation in Large River Systems (<http://pubs.usgs.gov/tm/2005/tm2A1/>)

Inland Oil Spills: Options for Minimizing Environmental Impacts for Freshwater Spill Response

([http://www.michigan.gov/documents/deq/deq-wb-wws-FreshwaterResponse\\_NOAA102706\\_265069\\_7.pdf](http://www.michigan.gov/documents/deq/deq-wb-wws-FreshwaterResponse_NOAA102706_265069_7.pdf))

NatureServe ([natureserve.org](http://natureserve.org))

Natural Wetland Inventory (<http://www.fws.gov/wetlands/>)

State Natural Heritage Programs (see state website)

The U.S. National Vegetation Classification (<http://usnvc.org/>)

# INLAND STRANDED OIL HABITAT FACT SHEET FOR RESPONSE: DEEP MARSH ANNUAL



## III. Sensitivity to Response Methods

The following text describes potential adverse impacts to this habitat resulting from various oil spill response methods and provides recommendations to reduce impact when these methods are implemented. This is not intended to preclude the use of any particular methods, but rather to aid responders in balancing the need to remove oil with the possible adverse effects of removal. More detail about the response methods themselves can be found in the [Inland Response Tactics Manual](#).

### **Least Adverse Habitat Impacts**

#### *Exclusion or Deflection Booming*

- Boom can be used to exclude or deflect the spill away from sensitive resources.
- Effectiveness is increased by positioning boom at appropriate angles for the current speed.

#### *Sorbents/Sorbent Boom*

- Water movement is needed to bring oil to the sorbent. Use on edge of vegetated area only or where water moves.
- Care is necessary during placement and recovery to minimize disturbance of vegetation. Work in boats to avoid driving oil into the sediment.
- Pom-pom type sorbents are best for heavy viscous oils that coat the strands; sorbent boom is best for light, low-viscosity oils that can penetrate into the sorbents.
- Absorbent boom must be changed frequently to prevent it from becoming a source of sheen.

#### *Flooding*

- Where there is the ability to control water levels such as locks and dams, this technique could be used to remove trapped oil; otherwise it is very difficult to herd oil trapped in vegetation towards recovery devices in open water. Contact the U.S. Army Corps of Engineers water control regarding lock and dam operation.
- Though this technique may work well, some oil may still be stranded and will need to be removed through other means.

#### *Low-Pressure, Ambient Water Flushing*

- Maintain low output pressures (less than 50 psi) to avoid disrupting the substrate and vegetation.
- Effectiveness increases with lighter oils because less residual oil is left in the environment.
- This tactic can be used with flooding to prevent re-deposition of oil.
- Use for spot removal of oil because of the limited area of effectiveness.

#### *In-Situ Burning*

- Presence of a water layer on marsh surface can protect roots.
- "Heavy ends" of petroleum product remain unburned and need to be recovered. The burn residue may sink after it cools, so quick removal is needed.
- Need to consider the amount of natural fuel present and the ability to constraint the fire to the oiled areas.
- Authorization of in-situ burning is subject to RRT approval, consultation and concurrence from the state and the Department of the Interior.

#### *Debris/ Vegetation Removal*

- Most appropriate for oils that form a persistent, thick, sticky coating on the vegetation, such as medium and heavy oils.
- Removal will release trapped oil and speed natural flushing rates.
- Debris may be associated with nests or living areas (e.g., beaver and muskrat lodges), therefore impacts on resident animal habitat need to be considered.
- If oil is trapped in floating vegetation, removal may be the only way to recover the oil in the absence of water currents.
- May be appropriate to prevent secondary oiling of wildlife.
- Damage by cleanup crews may be reduced by avoiding excessive cutting/removal, controlling access routes, or conducting operations from boats.

### **Some Adverse Habitat Impact**

#### *Natural Attenuation/Phytoremediation*

- This technique may have some adverse effects due to the fact that wild rice is an attractive food source and leaving oil could harm birds and other wildlife that come to feed. If that is not an issue, this technique has few effects.
- Lesser impact for small to moderate spills and lighter oils; avoids damage often associated with cleanup activities.
- Some cleanup may be warranted where large numbers of animals are likely to become oiled during wetland use.
- Seeding or planting may be used to assist oil degradation.

### **Most Adverse Habitat Impact**

#### *Light Equipment Oil Removal*

- Use equipment such as swamp buggies or light equipment on pontoons.
- Damage to vegetation and substrate may be reduced by controlling access routes, using pontoons or mats, or using a helicopter to bring in equipment.

#### *Sediment Removal*

- Vacuum/dredge sediments and dewater using geotube/settling tank. Treat the water and dispose of sediment.
- Excavate the sediment. Dewater the area before excavation.
- The hydrology may change and it may be difficult to restore the plant community that existed prior to the spill incident.
- Permits will be required for sediment removal and for water discharge.



## **APPENDIX A.3**

# **ECONOMICALLY SENSITIVE AREAS**

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## **APPENDIX A.3.a**

### **REGION 7**

#### **SURFACE WATER INTAKES**

This information is restricted. Please contact the Region 7 Regional Response Team Coordinator to request this information; or call the EPA Region 7 Emergency Response 24-Hour Number (spill line) at (913) 281-0991 to make an emergency request for this information.

## **APPENDIX A.3.b**

### **WATER INTAKES**

#### **MISSISSIPPI AND MISSOURI RIVER**

This information is restricted. Please contact the Region 7 Regional Response Team Coordinator to request this information; or call the EPA Region 7 Emergency Response 24-Hour Number (spill line) at (913) 281-0991 to make an emergency request for this information.

## **APPENDIX A.4**

# **FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES**

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**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES**

**APPENDIX A.4 TO REGION 7 INTEGRATED CONTINGENCY PLAN**

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**Note: The prairie bush-clover and western prairie fringed orchid potentially occur in all Iowa counties. In addition, the Indiana bat is assumed to occur in all counties south of Interstate 80. The list below indicates only those counties in which these species have been collected.**

**TABLE A.4.1**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - IOWA**

County	Common name	Scientific name	Status
Adair	Indiana bat	<i>Myotis sodalis</i>	E
Adair	Mead's milkweed	<i>Asclepias meadii</i>	T
Adair	Monarch butterfly	<i>Danaus plexippus</i>	C
Adair	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Adair	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Adams	Mead's milkweed	<i>Asclepias meadii</i>	T
Adams	Monarch butterfly	<i>Danaus plexippus</i>	C
Adams	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Adams	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Allamakee	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Allamakee	Higgins eye (pearlymussel)	<i>Lampsilis higginsii</i>	E
Allamakee	Iowa Pleistocene snail	<i>Discus macclintocki</i>	E
Allamakee	Monarch butterfly	<i>Danaus plexippus</i>	C
Allamakee	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Allamakee	Northern wild monkshood	<i>Aconitum noveboracense</i>	T
Allamakee	Prairie bush-clover	<i>Lespedeza leptostachya</i>	T
Allamakee	Rusty patched bumble bee	<i>Bombus affinis</i>	E
Allamakee	Sheepnose mussel	<i>Plethobasus cyphus</i>	E
Allamakee	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
Allamakee	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Appanoose	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Appanoose	Indiana bat	<i>Myotis sodalis</i>	E
Appanoose	Monarch butterfly	<i>Danaus plexippus</i>	C
Appanoose	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Audubon	Monarch butterfly	<i>Danaus plexippus</i>	C
Audubon	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Audubon	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Benton	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Benton	Higgins eye (pearlymussel)	<i>Lampsilis higginsii</i>	E
Benton	Monarch butterfly	<i>Danaus plexippus</i>	C

**DISCLAIMER:** This list identifies federally-listed endangered (E), threatened (T), candidate (C), and species of concern (SC) species as accessed at the U.S. Fish and Wildlife Service's Environmental Conservation Online System (ECOS) on January 2, 2024. While this list provides a REASONABLY ACCURATE GUIDE, it should not be considered the final word in determining species location.

**TABLE A.4.1**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - IOWA**

County	Common name	Scientific name	Status
Benton	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Benton	Rusty patched bumble bee	<i>Bombus affinis</i>	E
Black Hawk	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Black Hawk	Monarch butterfly	<i>Danaus plexippus</i>	C
Black Hawk	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Black Hawk	Rusty patched bumble bee	<i>Bombus affinis</i>	E
Black Hawk	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Boone	Indiana bat	<i>Myotis sodalis</i>	E
Boone	Monarch butterfly	<i>Danaus plexippus</i>	C
Boone	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Boone	Prairie bush-clover	<i>Lespedeza leptostachya</i>	T
Boone	Rusty patched bumble bee	<i>Bombus affinis</i>	E
Boone	Topeka shiner	<i>Notropis topeka</i>	E
Boone	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Bremer	Eastern massasauga	<i>Sistrurus catenatus</i>	T
Bremer	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Bremer	Monarch butterfly	<i>Danaus plexippus</i>	C
Bremer	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Bremer	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Buchanan	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Buchanan	Monarch butterfly	<i>Danaus plexippus</i>	C
Buchanan	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Buchanan	Prairie bush-clover	<i>Lespedeza leptostachya</i>	T
Buchanan	Rusty patched bumble bee	<i>Bombus affinis</i>	E
Buchanan	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Buena Vista	Monarch butterfly	<i>Danaus plexippus</i>	C
Buena Vista	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Buena Vista	Prairie bush-clover	<i>Lespedeza leptostachya</i>	T
Buena Vista	Topeka shiner	<i>Notropis topeka</i>	E
Buena Vista	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Butler	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Butler	Monarch butterfly	<i>Danaus plexippus</i>	C
Butler	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Butler	Prairie bush-clover	<i>Lespedeza leptostachya</i>	T
Butler	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Calhoun	Monarch butterfly	<i>Danaus plexippus</i>	C

**DISCLAIMER:** This list identifies federally-listed endangered (E), threatened (T), candidate (C), and species of concern (SC) species as accessed at the U.S. Fish and Wildlife Service's Environmental Conservation Online System (ECOS) on January 2, 2024. While this list provides a REASONABLY ACCURATE GUIDE, it should not be considered the final word in determining species location.

**TABLE A.4.1**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - IOWA**

County	Common name	Scientific name	Status
Calhoun	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Calhoun	Topeka shiner	<i>Notropis topeka</i>	E
Calhoun	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Carroll	Monarch butterfly	<i>Danaus plexippus</i>	C
Carroll	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Carroll	Topeka shiner	<i>Notropis topeka</i>	E
Carroll	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Cass	Monarch butterfly	<i>Danaus plexippus</i>	C
Cass	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Cass	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Cedar	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Cedar	Higgins eye (pearlymussel)	<i>Lampsilis higginsii</i>	E
Cedar	Indiana bat	<i>Myotis sodalis</i>	E
Cedar	Monarch butterfly	<i>Danaus plexippus</i>	C
Cedar	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Cedar	Rusty patched bumble bee	<i>Bombus affinis</i>	E
Cerro Gordo	Monarch butterfly	<i>Danaus plexippus</i>	C
Cerro Gordo	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Cerro Gordo	Rusty patched bumble bee	<i>Bombus affinis</i>	E
Cherokee	Monarch butterfly	<i>Danaus plexippus</i>	C
Cherokee	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Cherokee	Prairie bush-clover	<i>Lespedeza leptostachya</i>	T
Cherokee	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Chickasaw	Eastern massasauga	<i>Sistrurus catenatus</i>	T
Chickasaw	Monarch butterfly	<i>Danaus plexippus</i>	C
Chickasaw	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Chickasaw	Prairie bush-clover	<i>Lespedeza leptostachya</i>	T
Chickasaw	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Clarke	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Clarke	Indiana bat	<i>Myotis sodalis</i>	E
Clarke	Mead's milkweed	<i>Asclepias meadii</i>	T
Clarke	Monarch butterfly	<i>Danaus plexippus</i>	C
Clarke	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Clarke	Prairie bush-clover	<i>Lespedeza leptostachya</i>	T
Clay	Monarch butterfly	<i>Danaus plexippus</i>	C
Clay	Northern long-eared bat	<i>Myotis septentrionalis</i>	E

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**TABLE A.4.1**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - IOWA**

County	Common name	Scientific name	Status
Clay	Prairie bush-clover	<i>Lespedeza leptostachya</i>	T
Clay	Topeka shiner	<i>Notropis topeka</i>	E
Clay	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Clayton	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Clayton	Higgins eye (pearlymussel)	<i>Lampsilis higginsii</i>	E
Clayton	Iowa Pleistocene snail	<i>Discus macclintocki</i>	E
Clayton	Monarch butterfly	<i>Danaus plexippus</i>	C
Clayton	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Clayton	Northern wild monkshood	<i>Aconitum noveboracense</i>	T
Clayton	Prairie bush-clover	<i>Lespedeza leptostachya</i>	T
Clayton	Rusty patched bumble bee	<i>Bombus affinis</i>	E
Clayton	Sheepnose mussel	<i>Plethobasus cyphus</i>	E
Clayton	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
Clayton	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Clinton	Eastern massasauga	<i>Sistrurus catenatus</i>	T
Clinton	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Clinton	Higgins eye (pearlymussel)	<i>Lampsilis higginsii</i>	E
Clinton	Iowa Pleistocene snail	<i>Discus macclintocki</i>	E
Clinton	Monarch butterfly	<i>Danaus plexippus</i>	C
Clinton	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Clinton	Northern wild monkshood	<i>Aconitum noveboracense</i>	T
Clinton	Rusty patched bumble bee	<i>Bombus affinis</i>	E
Clinton	Sheepnose mussel	<i>Plethobasus cyphus</i>	E
Crawford	Monarch butterfly	<i>Danaus plexippus</i>	C
Crawford	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Crawford	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Dallas	Indiana bat	<i>Myotis sodalis</i>	E
Dallas	Mead's milkweed	<i>Asclepias meadii</i>	T
Dallas	Monarch butterfly	<i>Danaus plexippus</i>	C
Dallas	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Dallas	Topeka shiner	<i>Notropis topeka</i>	E
Dallas	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Davis	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Davis	Indiana bat	<i>Myotis sodalis</i>	E
Davis	Monarch butterfly	<i>Danaus plexippus</i>	C
Davis	Northern long-eared bat	<i>Myotis septentrionalis</i>	E

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**TABLE A.4.1**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - IOWA**

County	Common name	Scientific name	Status
Decatur	Eastern prairie fringed orchid	Platanthera leucophaea	T
Decatur	Indiana bat	Myotis sodalis	E
Decatur	Mead's milkweed	Asclepias meadii	T
Decatur	Monarch butterfly	Danaus plexippus	C
Decatur	Northern long-eared bat	Myotis septentrionalis	E
Delaware	Eastern prairie fringed orchid	Platanthera leucophaea	T
Delaware	Higgins eye (pearlymussel)	Lampsilis higginsii	E
Delaware	Iowa Pleistocene snail	Discus macclintocki	E
Delaware	Monarch butterfly	Danaus plexippus	C
Delaware	Northern long-eared bat	Myotis septentrionalis	E
Delaware	Northern wild monkshood	Aconitum noveboracense	T
Delaware	Prairie bush-clover	Lespedeza leptostachya	T
Delaware	Rusty patched bumble bee	Bombus affinis	E
Des Moines	Eastern prairie fringed orchid	Platanthera leucophaea	T
Des Moines	Higgins eye (pearlymussel)	Lampsilis higginsii	E
Des Moines	Indiana bat	Myotis sodalis	E
Des Moines	Monarch butterfly	Danaus plexippus	C
Des Moines	Northern long-eared bat	Myotis septentrionalis	E
Des Moines	Sheepnose mussel	Plethobasus cyphus	E
Des Moines	Spectaclecase (mussel)	Cumberlandia monodonta	E
Dickinson	Monarch butterfly	Danaus plexippus	C
Dickinson	Northern long-eared bat	Myotis septentrionalis	E
Dickinson	Prairie bush-clover	Lespedeza leptostachya	T
Dickinson	Western prairie fringed orchid	Platanthera praeclara	T
Dubuque	Eastern prairie fringed orchid	Platanthera leucophaea	T
Dubuque	Higgins eye (pearlymussel)	Lampsilis higginsii	E
Dubuque	Iowa Pleistocene snail	Discus macclintocki	E
Dubuque	Monarch butterfly	Danaus plexippus	C
Dubuque	Northern long-eared bat	Myotis septentrionalis	E
Dubuque	Northern wild monkshood	Aconitum noveboracense	T
Dubuque	Rusty patched bumble bee	Bombus affinis	E
Dubuque	Sheepnose mussel	Plethobasus cyphus	E
Emmet	Monarch butterfly	Danaus plexippus	C
Emmet	Northern long-eared bat	Myotis septentrionalis	E
Emmet	Prairie bush-clover	Lespedeza leptostachya	T
Emmet	Western prairie fringed orchid	Platanthera praeclara	T

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TABLE A.4.1

FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - IOWA

County	Common name	Scientific name	Status
Fayette	Eastern prairie fringed orchid	Platanthera leucophaea	T
Fayette	Iowa Pleistocene snail	Discus macclintocki	E
Fayette	Monarch butterfly	Danaus plexippus	C
Fayette	Northern long-eared bat	Myotis septentrionalis	E
Fayette	Northern wild monkshood	Aconitum noveboracense	T
Fayette	Rusty patched bumble bee	Bombus affinis	E
Fayette	Western prairie fringed orchid	Platanthera praeclara	T
Floyd	Monarch butterfly	Danaus plexippus	C
Floyd	Northern long-eared bat	Myotis septentrionalis	E
Floyd	Western prairie fringed orchid	Platanthera praeclara	T
Franklin	Monarch butterfly	Danaus plexippus	C
Franklin	Northern long-eared bat	Myotis septentrionalis	E
Franklin	Prairie bush-clover	Lespedeza leptostachya	T
Fremont	Monarch butterfly	Danaus plexippus	C
Fremont	Northern long-eared bat	Myotis septentrionalis	E
Fremont	Pallid sturgeon	Scaphirhynchus albus	E
Fremont	Western prairie fringed orchid	Platanthera praeclara	T
Greene	Monarch butterfly	Danaus plexippus	C
Greene	Northern long-eared bat	Myotis septentrionalis	E
Greene	Topeka shiner	Notropis topeka	E
Grundy	Eastern prairie fringed orchid	Platanthera leucophaea	T
Grundy	Monarch butterfly	Danaus plexippus	C
Grundy	Northern long-eared bat	Myotis septentrionalis	E
Grundy	Prairie bush-clover	Lespedeza leptostachya	T
Guthrie	Indiana bat	Myotis sodalis	E
Guthrie	Monarch butterfly	Danaus plexippus	C
Guthrie	Northern long-eared bat	Myotis septentrionalis	E
Guthrie	Topeka shiner	Notropis topeka	E
Guthrie	Western prairie fringed orchid	Platanthera praeclara	T
Hamilton	Monarch butterfly	Danaus plexippus	C
Hamilton	Northern long-eared bat	Myotis septentrionalis	E
Hamilton	Prairie bush-clover	Lespedeza leptostachya	T
Hamilton	Topeka shiner	Notropis topeka	E
Hancock	Monarch butterfly	Danaus plexippus	C
Hancock	Northern long-eared bat	Myotis septentrionalis	E
Hancock	Rusty patched bumble bee	Bombus affinis	E

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FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - IOWA

County	Common name	Scientific name	Status
Hancock	Topeka shiner	Notropis topeka	E
Hardin	Eastern prairie fringed orchid	Platanthera leucophaea	T
Hardin	Monarch butterfly	Danaus plexippus	C
Hardin	Northern long-eared bat	Myotis septentrionalis	E
Hardin	Prairie bush-clover	Lespedeza leptostachya	T
Harrison	Monarch butterfly	Danaus plexippus	C
Harrison	Northern long-eared bat	Myotis septentrionalis	E
Harrison	Pallid sturgeon	Scaphirhynchus albus	E
Harrison	Western prairie fringed orchid	Platanthera praeclara	T
Henry	Eastern prairie fringed orchid	Platanthera leucophaea	T
Henry	Higgins eye (pearlymussel)	Lampsilis higginsii	E
Henry	Indiana bat	Myotis sodalis	E
Henry	Monarch butterfly	Danaus plexippus	C
Henry	Northern long-eared bat	Myotis septentrionalis	E
Howard	Monarch butterfly	Danaus plexippus	C
Howard	Northern long-eared bat	Myotis septentrionalis	E
Howard	Prairie bush-clover	Lespedeza leptostachya	T
Howard	Rusty patched bumble bee	Bombus affinis	E
Howard	Western prairie fringed orchid	Platanthera praeclara	T
Humboldt	Monarch butterfly	Danaus plexippus	C
Humboldt	Northern long-eared bat	Myotis septentrionalis	E
Humboldt	Prairie bush-clover	Lespedeza leptostachya	T
Humboldt	Topeka shiner	Notropis topeka	E
Humboldt	Western prairie fringed orchid	Platanthera praeclara	T
Ida	Monarch butterfly	Danaus plexippus	C
Ida	Northern long-eared bat	Myotis septentrionalis	E
Iowa	Eastern prairie fringed orchid	Platanthera leucophaea	T
Iowa	Indiana bat	Myotis sodalis	E
Iowa	Monarch butterfly	Danaus plexippus	C
Iowa	Northern long-eared bat	Myotis septentrionalis	E
Iowa	Rusty patched bumble bee	Bombus affinis	E
Jackson	Eastern prairie fringed orchid	Platanthera leucophaea	T
Jackson	Higgins eye (pearlymussel)	Lampsilis higginsii	E
Jackson	Iowa Pleistocene snail	Discus macclintocki	E
Jackson	Monarch butterfly	Danaus plexippus	C
Jackson	Northern long-eared bat	Myotis septentrionalis	E

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**TABLE A.4.1**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - IOWA**

County	Common name	Scientific name	Status
Jackson	Northern wild monkshood	<i>Aconitum noveboracense</i>	T
Jackson	Rusty patched bumble bee	<i>Bombus affinis</i>	E
Jackson	Sheepnose mussel	<i>Plethobasus cyphus</i>	E
Jasper	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Jasper	Indiana bat	<i>Myotis sodalis</i>	E
Jasper	Monarch butterfly	<i>Danaus plexippus</i>	C
Jasper	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Jasper	Rusty patched bumble bee	<i>Bombus affinis</i>	E
Jasper	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Jefferson	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Jefferson	Indiana bat	<i>Myotis sodalis</i>	E
Jefferson	Monarch butterfly	<i>Danaus plexippus</i>	C
Jefferson	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Johnson	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Johnson	Higgins eye (pearlymussel)	<i>Lampsilis higginsii</i>	E
Johnson	Indiana bat	<i>Myotis sodalis</i>	E
Johnson	Monarch butterfly	<i>Danaus plexippus</i>	C
Johnson	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Johnson	Rusty patched bumble bee	<i>Bombus affinis</i>	E
Jones	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Jones	Higgins eye (pearlymussel)	<i>Lampsilis higginsii</i>	E
Jones	Iowa Pleistocene snail	<i>Discus macclintocki</i>	E
Jones	Monarch butterfly	<i>Danaus plexippus</i>	C
Jones	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Jones	Northern wild monkshood	<i>Aconitum noveboracense</i>	T
Jones	Rusty patched bumble bee	<i>Bombus affinis</i>	E
Keokuk	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Keokuk	Indiana bat	<i>Myotis sodalis</i>	E
Keokuk	Monarch butterfly	<i>Danaus plexippus</i>	C
Keokuk	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Kossuth	Monarch butterfly	<i>Danaus plexippus</i>	C
Kossuth	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Kossuth	Prairie bush-clover	<i>Lespedeza leptostachya</i>	T
Kossuth	Topeka shiner	<i>Notropis topeka</i>	E
Kossuth	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Lee	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T

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**TABLE A.4.1**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - IOWA**

County	Common name	Scientific name	Status
Lee	Higgins eye (pearlymussel)	<i>Lampsilis higginsii</i>	E
Lee	Indiana bat	<i>Myotis sodalis</i>	E
Lee	Monarch butterfly	<i>Danaus plexippus</i>	C
Lee	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Lee	Sheepnose mussel	<i>Plethobasus cyphus</i>	E
Lee	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
Linn	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Linn	Higgins eye (pearlymussel)	<i>Lampsilis higginsii</i>	E
Linn	Monarch butterfly	<i>Danaus plexippus</i>	C
Linn	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Linn	Rusty patched bumble bee	<i>Bombus affinis</i>	E
Louisa	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Louisa	Higgins eye (pearlymussel)	<i>Lampsilis higginsii</i>	E
Louisa	Indiana bat	<i>Myotis sodalis</i>	E
Louisa	Monarch butterfly	<i>Danaus plexippus</i>	C
Louisa	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Louisa	Sheepnose mussel	<i>Plethobasus cyphus</i>	E
Louisa	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
Lucas	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Lucas	Indiana bat	<i>Myotis sodalis</i>	E
Lucas	Mead's milkweed	<i>Asclepias meadii</i>	T
Lucas	Monarch butterfly	<i>Danaus plexippus</i>	C
Lucas	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Lucas	Prairie bush-clover	<i>Lespedeza leptostachya</i>	T
Lyon	Monarch butterfly	<i>Danaus plexippus</i>	C
Lyon	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Lyon	Topeka shiner	<i>Notropis topeka</i>	E
Lyon	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Madison	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Madison	Indiana bat	<i>Myotis sodalis</i>	E
Madison	Mead's milkweed	<i>Asclepias meadii</i>	T
Madison	Monarch butterfly	<i>Danaus plexippus</i>	C
Madison	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Madison	Prairie bush-clover	<i>Lespedeza leptostachya</i>	T
Mahaska	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Mahaska	Indiana bat	<i>Myotis sodalis</i>	E

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**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - IOWA**

County	Common name	Scientific name	Status
Mahaska	Monarch butterfly	<i>Danaus plexippus</i>	C
Mahaska	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Marion	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Marion	Indiana bat	<i>Myotis sodalis</i>	E
Marion	Monarch butterfly	<i>Danaus plexippus</i>	C
Marion	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Marshall	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Marshall	Indiana bat	<i>Myotis sodalis</i>	E
Marshall	Monarch butterfly	<i>Danaus plexippus</i>	C
Marshall	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Mills	Monarch butterfly	<i>Danaus plexippus</i>	C
Mills	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Mills	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Mills	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Mitchell	Iowa Pleistocene snail	<i>Discus macclintocki</i>	E
Mitchell	Monarch butterfly	<i>Danaus plexippus</i>	C
Mitchell	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Mitchell	Rusty patched bumble bee	<i>Bombus affinis</i>	E
Mitchell	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Monona	Monarch butterfly	<i>Danaus plexippus</i>	C
Monona	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Monona	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Monroe	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Monroe	Indiana bat	<i>Myotis sodalis</i>	E
Monroe	Monarch butterfly	<i>Danaus plexippus</i>	C
Monroe	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Montgomery	Monarch butterfly	<i>Danaus plexippus</i>	C
Montgomery	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Montgomery	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Muscatine	Eastern massasauga	<i>Sistrurus catenatus</i>	T
Muscatine	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Muscatine	Higgins eye (pearlymussel)	<i>Lampsilis higginsii</i>	E
Muscatine	Indiana bat	<i>Myotis sodalis</i>	E
Muscatine	Monarch butterfly	<i>Danaus plexippus</i>	C
Muscatine	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Muscatine	Sheepnose mussel	<i>Plethobasus cyphus</i>	E

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**TABLE A.4.1**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - IOWA**

County	Common name	Scientific name	Status
Muscatine	Spectaclecase (mussel)	Cumberlandia monodonta	E
O'Brien	Monarch butterfly	Danaus plexippus	C
O'Brien	Northern long-eared bat	Myotis septentrionalis	E
O'Brien	Prairie bush-clover	Lespedeza leptostachya	T
O'Brien	Western prairie fringed orchid	Platanthera praeclara	T
Osceola	Monarch butterfly	Danaus plexippus	C
Osceola	Northern long-eared bat	Myotis septentrionalis	E
Osceola	Prairie bush-clover	Lespedeza leptostachya	T
Osceola	Topeka shiner	Notropis topeka	E
Page	Monarch butterfly	Danaus plexippus	C
Page	Northern long-eared bat	Myotis septentrionalis	E
Page	Western prairie fringed orchid	Platanthera praeclara	T
Palo Alto	Monarch butterfly	Danaus plexippus	C
Palo Alto	Northern long-eared bat	Myotis septentrionalis	E
Palo Alto	Prairie bush-clover	Lespedeza leptostachya	T
Palo Alto	Topeka shiner	Notropis topeka	E
Palo Alto	Western prairie fringed orchid	Platanthera praeclara	T
Plymouth	Monarch butterfly	Danaus plexippus	C
Plymouth	Northern long-eared bat	Myotis septentrionalis	E
Plymouth	Pallid sturgeon	Scaphirhynchus albus	E
Plymouth	Western prairie fringed orchid	Platanthera praeclara	T
Pocahontas	Monarch butterfly	Danaus plexippus	C
Pocahontas	Northern long-eared bat	Myotis septentrionalis	E
Pocahontas	Topeka shiner	Notropis topeka	E
Pocahontas	Western prairie fringed orchid	Platanthera praeclara	T
Polk	Eastern prairie fringed orchid	Platanthera leucophaea	T
Polk	Indiana bat	Myotis sodalis	E
Polk	Mead's milkweed	Asclepias meadii	T
Polk	Monarch butterfly	Danaus plexippus	C
Polk	Northern long-eared bat	Myotis septentrionalis	E
Polk	Rusty patched bumble bee	Bombus affinis	E
Polk	Western prairie fringed orchid	Platanthera praeclara	T
Pottawattamie	Monarch butterfly	Danaus plexippus	C
Pottawattamie	Northern long-eared bat	Myotis septentrionalis	E
Pottawattamie	Pallid sturgeon	Scaphirhynchus albus	E
Pottawattamie	Piping plover	Charadrius melodus	T

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**TABLE A.4.1**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - IOWA**

County	Common name	Scientific name	Status
Pottawattamie	Western prairie fringed orchid	Platanthera praeclara	T
Poweshiek	Eastern prairie fringed orchid	Platanthera leucophaea	T
Poweshiek	Indiana bat	Myotis sodalis	E
Poweshiek	Monarch butterfly	Danaus plexippus	C
Poweshiek	Northern long-eared bat	Myotis septentrionalis	E
Ringgold	Eastern prairie fringed orchid	Platanthera leucophaea	T
Ringgold	Indiana bat	Myotis sodalis	E
Ringgold	Mead's milkweed	Asclepias meadii	T
Ringgold	Monarch butterfly	Danaus plexippus	C
Ringgold	Northern long-eared bat	Myotis septentrionalis	E
Sac	Monarch butterfly	Danaus plexippus	C
Sac	Northern long-eared bat	Myotis septentrionalis	E
Sac	Topeka shiner	Notropis topeka	E
Scott	Eastern massasauga	Sistrurus catenatus	T
Scott	Eastern prairie fringed orchid	Platanthera leucophaea	T
Scott	Higgins eye (pearly mussel)	Lampsilis higginsii	E
Scott	Indiana bat	Myotis sodalis	E
Scott	Monarch butterfly	Danaus plexippus	C
Scott	Northern long-eared bat	Myotis septentrionalis	E
Scott	Rusty patched bumble bee	Bombus affinis	E
Scott	Sheepnose mussel	Plethobasus cyphus	E
Scott	Spectaclecase (mussel)	Cumberlandia monodonta	E
Shelby	Monarch butterfly	Danaus plexippus	C
Shelby	Northern long-eared bat	Myotis septentrionalis	E
Shelby	Western prairie fringed orchid	Platanthera praeclara	T
Sioux	Monarch butterfly	Danaus plexippus	C
Sioux	Northern long-eared bat	Myotis septentrionalis	E
Sioux	Pallid sturgeon	Scaphirhynchus albus	E
Sioux	Topeka shiner	Notropis topeka	E
Sioux	Western prairie fringed orchid	Platanthera praeclara	T
Story	Eastern prairie fringed orchid	Platanthera leucophaea	T
Story	Indiana bat	Myotis sodalis	E
Story	Monarch butterfly	Danaus plexippus	C
Story	Northern long-eared bat	Myotis septentrionalis	E
Story	Prairie bush-clover	Lespedeza leptostachya	T
Story	Rusty patched bumble bee	Bombus affinis	E

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County	Common name	Scientific name	Status
Story	Western prairie fringed orchid	Platanthera praeclara	T
Tama	Eastern prairie fringed orchid	Platanthera leucophaea	T
Tama	Indiana bat	Myotis sodalis	E
Tama	Monarch butterfly	Danaus plexippus	C
Tama	Northern long-eared bat	Myotis septentrionalis	E
Taylor	Indiana bat	Myotis sodalis	E
Taylor	Mead's milkweed	Asclepias meadii	T
Taylor	Monarch butterfly	Danaus plexippus	C
Taylor	Northern long-eared bat	Myotis septentrionalis	E
Union	Eastern prairie fringed orchid	Platanthera leucophaea	T
Union	Indiana bat	Myotis sodalis	E
Union	Mead's milkweed	Asclepias meadii	T
Union	Monarch butterfly	Danaus plexippus	C
Union	Northern long-eared bat	Myotis septentrionalis	E
Union	Prairie bush-clover	Lespedeza leptostachya	T
Van Buren	Eastern prairie fringed orchid	Platanthera leucophaea	T
Van Buren	Higgins eye (pearlymussel)	Lampsilis higginsii	E
Van Buren	Indiana bat	Myotis sodalis	E
Van Buren	Monarch butterfly	Danaus plexippus	C
Van Buren	Northern long-eared bat	Myotis septentrionalis	E
Wapello	Eastern prairie fringed orchid	Platanthera leucophaea	T
Wapello	Indiana bat	Myotis sodalis	E
Wapello	Monarch butterfly	Danaus plexippus	C
Wapello	Northern long-eared bat	Myotis septentrionalis	E
Warren	Eastern prairie fringed orchid	Platanthera leucophaea	T
Warren	Indiana bat	Myotis sodalis	E
Warren	Mead's milkweed	Asclepias meadii	T
Warren	Monarch butterfly	Danaus plexippus	C
Warren	Northern long-eared bat	Myotis septentrionalis	E
Warren	Prairie bush-clover	Lespedeza leptostachya	T
Washington	Eastern prairie fringed orchid	Platanthera leucophaea	T
Washington	Higgins eye (pearlymussel)	Lampsilis higginsii	E
Washington	Indiana bat	Myotis sodalis	E
Washington	Monarch butterfly	Danaus plexippus	C
Washington	Northern long-eared bat	Myotis septentrionalis	E
Wayne	Eastern prairie fringed orchid	Platanthera leucophaea	T

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**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - IOWA**

County	Common name	Scientific name	Status
Wayne	Indiana bat	<i>Myotis sodalis</i>	E
Wayne	Mead's milkweed	<i>Asclepias meadii</i>	T
Wayne	Monarch butterfly	<i>Danaus plexippus</i>	C
Wayne	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Webster	Monarch butterfly	<i>Danaus plexippus</i>	C
Webster	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Webster	Rusty patched bumble bee	<i>Bombus affinis</i>	E
Webster	Topeka shiner	<i>Notropis topeka</i>	E
Webster	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Winnebago	Monarch butterfly	<i>Danaus plexippus</i>	C
Winnebago	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Winnebago	Rusty patched bumble bee	<i>Bombus affinis</i>	E
Winneshiek	Iowa Pleistocene snail	<i>Discus macclintocki</i>	E
Winneshiek	Monarch butterfly	<i>Danaus plexippus</i>	C
Winneshiek	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Winneshiek	Prairie bush-clover	<i>Lespedeza leptostachya</i>	T
Winneshiek	Rusty patched bumble bee	<i>Bombus affinis</i>	E
Winneshiek	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Woodbury	Monarch butterfly	<i>Danaus plexippus</i>	C
Woodbury	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Woodbury	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Woodbury	Piping plover	<i>Charadrius melodus</i>	T
Woodbury	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Worth	Monarch butterfly	<i>Danaus plexippus</i>	C
Worth	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Worth	Rusty patched bumble bee	<i>Bombus affinis</i>	E
Wright	Monarch butterfly	<i>Danaus plexippus</i>	C
Wright	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Wright	Topeka shiner	<i>Notropis topeka</i>	E

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**TABLE A.4.2**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - KANSAS**

County	Common name	Scientific name	Status
Allen	Mead's milkweed	<i>Asclepias meadii</i>	T
Allen	Monarch butterfly	<i>Danaus plexippus</i>	C
Allen	Neosho madtom	<i>Noturus placidus</i>	T
Allen	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E
Allen	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Allen	Rabbitsfoot	<i>Quadrula cylindrica cylindrica</i>	T
Anderson	Mead's milkweed	<i>Asclepias meadii</i>	T
Anderson	Monarch butterfly	<i>Danaus plexippus</i>	C
Anderson	Neosho madtom	<i>Noturus placidus</i>	T
Anderson	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E
Anderson	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Atchison	Monarch butterfly	<i>Danaus plexippus</i>	C
Atchison	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Atchison	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Barber	Monarch butterfly	<i>Danaus plexippus</i>	C
Barber	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Barber	Whooping crane	<i>Grus americana</i>	E
Barton	Monarch butterfly	<i>Danaus plexippus</i>	C
Barton	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Barton	Piping plover	<i>Charadrius melodus</i>	T
Barton	Rufa red knot	<i>Calidris canutus rufa</i>	T
Barton	Whooping crane	<i>Grus americana</i>	E
Bourbon	Mead's milkweed	<i>Asclepias meadii</i>	T
Bourbon	Monarch butterfly	<i>Danaus plexippus</i>	C
Bourbon	Neosho madtom	<i>Noturus placidus</i>	T
Bourbon	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E
Bourbon	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Brown	Monarch butterfly	<i>Danaus plexippus</i>	C
Brown	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Brown	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Butler	Monarch butterfly	<i>Danaus plexippus</i>	C
Butler	Neosho madtom	<i>Noturus placidus</i>	T
Butler	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E
Butler	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Butler	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Butler	Topeka shiner	<i>Notropis topeka</i>	E

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**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - KANSAS**

County	Common name	Scientific name	Status
Chase	Monarch butterfly	<i>Danaus plexippus</i>	C
Chase	Neosho madtom	<i>Noturus placidus</i>	T
Chase	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E
Chase	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Chase	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Chase	Topeka shiner	<i>Notropis topeka</i>	E
Chautauqua	American burying beetle	<i>Nicrophorus americanus</i>	T
Chautauqua	Monarch butterfly	<i>Danaus plexippus</i>	C
Chautauqua	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Cherokee	American burying beetle	<i>Nicrophorus americanus</i>	T
Cherokee	Mead's milkweed	<i>Asclepias meadii</i>	T
Cherokee	Monarch butterfly	<i>Danaus plexippus</i>	C
Cherokee	Neosho madtom	<i>Noturus placidus</i>	T
Cherokee	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E
Cherokee	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Cherokee	Ozark cavefish	<i>Amblyopsis rosae</i>	T
Cherokee	Rabbitsfoot	<i>Quadrula cylindrica cylindrica</i>	T
Cherokee	Western fanshell	<i>Cyprogenia aberti</i>	T
Cheyenne	Monarch butterfly	<i>Danaus plexippus</i>	C
Clark	Arkansas River shiner	<i>Notropis girardi</i>	T
Clark	Monarch butterfly	<i>Danaus plexippus</i>	C
Clark	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Clark	Piping plover	<i>Charadrius melodus</i>	T
Clark	Whooping crane	<i>Grus americana</i>	E
Clay	Monarch butterfly	<i>Danaus plexippus</i>	C
Clay	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Clay	Topeka shiner	<i>Notropis topeka</i>	E
Cloud	Monarch butterfly	<i>Danaus plexippus</i>	C
Cloud	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Cloud	Whooping crane	<i>Grus americana</i>	E
Coffey	Mead's milkweed	<i>Asclepias meadii</i>	T
Coffey	Monarch butterfly	<i>Danaus plexippus</i>	C
Coffey	Neosho madtom	<i>Noturus placidus</i>	T
Coffey	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E
Coffey	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Coffey	Rabbitsfoot	<i>Quadrula cylindrica cylindrica</i>	T

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**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - KANSAS**

County	Common name	Scientific name	Status
Comanche	Arkansas River shiner	Notropis girardi	T
Comanche	Monarch butterfly	Danaus plexippus	C
Comanche	Peppered chub	Macrhybopsis tetranema	E
Comanche	Whooping crane	Grus americana	E
Cowley	American burying beetle	Nicrophorus americanus	T
Cowley	Monarch butterfly	Danaus plexippus	C
Cowley	Peppered chub	Macrhybopsis tetranema	E
Crawford	Gray bat	Myotis grisescens	E
Crawford	Mead's milkweed	Asclepias meadii	T
Crawford	Monarch butterfly	Danaus plexippus	C
Crawford	Neosho madtom	Noturus placidus	T
Crawford	Neosho mucket	Lampsilis rafinesqueana	E
Crawford	Northern long-eared bat	Myotis septentrionalis	E
Decatur	Monarch butterfly	Danaus plexippus	C
Decatur	Whooping crane	Grus americana	E
Dickinson	Monarch butterfly	Danaus plexippus	C
Dickinson	Northern long-eared bat	Myotis septentrionalis	E
Dickinson	Topeka shiner	Notropis topeka	E
Dickinson	Whooping crane	Grus americana	E
Doniphan	Monarch butterfly	Danaus plexippus	C
Doniphan	Northern long-eared bat	Myotis septentrionalis	E
Doniphan	Pallid sturgeon	Scaphirhynchus albus	E
Douglas	Mead's milkweed	Asclepias meadii	T
Douglas	Monarch butterfly	Danaus plexippus	C
Douglas	Northern long-eared bat	Myotis septentrionalis	E
Douglas	Pallid sturgeon	Scaphirhynchus albus	E
Douglas	Western prairie fringed orchid	Platanthera praeclara	T
Edwards	Monarch butterfly	Danaus plexippus	C
Edwards	Peppered chub	Macrhybopsis tetranema	E
Edwards	Whooping crane	Grus americana	E
Elk	American burying beetle	Nicrophorus americanus	T
Elk	Monarch butterfly	Danaus plexippus	C
Elk	Neosho mucket	Lampsilis rafinesqueana	E
Elk	Northern long-eared bat	Myotis septentrionalis	E
Elk	Peppered chub	Macrhybopsis tetranema	E
Elk	Western fanshell	Cyprogenia aberti	T

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County	Common name	Scientific name	Status
Ellis	Monarch butterfly	<i>Danaus plexippus</i>	C
Ellis	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Ellis	Whooping crane	<i>Grus americana</i>	E
Ellsworth	Monarch butterfly	<i>Danaus plexippus</i>	C
Ellsworth	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Ellsworth	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Ellsworth	Whooping crane	<i>Grus americana</i>	E
Finney	Monarch butterfly	<i>Danaus plexippus</i>	C
Finney	Whooping crane	<i>Grus americana</i>	E
Ford	Arkansas River shiner	<i>Notropis girardi</i>	T
Ford	Monarch butterfly	<i>Danaus plexippus</i>	C
Ford	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Ford	Whooping crane	<i>Grus americana</i>	E
Franklin	Mead's milkweed	<i>Asclepias meadii</i>	T
Franklin	Monarch butterfly	<i>Danaus plexippus</i>	C
Franklin	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Franklin	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Geary	Monarch butterfly	<i>Danaus plexippus</i>	C
Geary	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Geary	Topeka shiner	<i>Notropis topeka</i>	E
Gove	Monarch butterfly	<i>Danaus plexippus</i>	C
Gove	Whooping crane	<i>Grus americana</i>	E
Graham	Monarch butterfly	<i>Danaus plexippus</i>	C
Graham	Whooping crane	<i>Grus americana</i>	E
Grant	Arkansas River shiner	<i>Notropis girardi</i>	T
Grant	Monarch butterfly	<i>Danaus plexippus</i>	C
Gray	Arkansas River shiner	<i>Notropis girardi</i>	T
Gray	Monarch butterfly	<i>Danaus plexippus</i>	C
Gray	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Gray	Whooping crane	<i>Grus americana</i>	E
Greeley	Monarch butterfly	<i>Danaus plexippus</i>	C
Greenwood	American burying beetle	<i>Nicrophorus americanus</i>	T
Greenwood	Monarch butterfly	<i>Danaus plexippus</i>	C
Greenwood	Neosho madtom	<i>Noturus placidus</i>	T
Greenwood	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E
Greenwood	Northern long-eared bat	<i>Myotis septentrionalis</i>	E

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County	Common name	Scientific name	Status
Greenwood	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Greenwood	Rabbitsfoot	<i>Quadrula cylindrica cylindrica</i>	T
Greenwood	Topeka shiner	<i>Notropis topeka</i>	E
Greenwood	Western fanshell	<i>Cyprogenia aberti</i>	T
Hamilton	Black-footed ferret	<i>Mustela nigripes</i>	E
Hamilton	Monarch butterfly	<i>Danaus plexippus</i>	C
Harper	Monarch butterfly	<i>Danaus plexippus</i>	C
Harper	Whooping crane	<i>Grus americana</i>	E
Harvey	Monarch butterfly	<i>Danaus plexippus</i>	C
Harvey	Neosho madtom	<i>Noturus placidus</i>	T
Harvey	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Harvey	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Harvey	Whooping crane	<i>Grus americana</i>	E
Haskell	Arkansas River shiner	<i>Notropis girardi</i>	T
Haskell	Monarch butterfly	<i>Danaus plexippus</i>	C
Hodgeman	Monarch butterfly	<i>Danaus plexippus</i>	C
Hodgeman	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Hodgeman	Whooping crane	<i>Grus americana</i>	E
Jackson	Mead's milkweed	<i>Asclepias meadii</i>	T
Jackson	Monarch butterfly	<i>Danaus plexippus</i>	C
Jackson	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Jackson	Topeka shiner	<i>Notropis topeka</i>	E
Jefferson	Mead's milkweed	<i>Asclepias meadii</i>	T
Jefferson	Monarch butterfly	<i>Danaus plexippus</i>	C
Jefferson	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Jefferson	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Jewell	Monarch butterfly	<i>Danaus plexippus</i>	C
Jewell	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Jewell	Whooping crane	<i>Grus americana</i>	E
Johnson	Mead's milkweed	<i>Asclepias meadii</i>	T
Johnson	Monarch butterfly	<i>Danaus plexippus</i>	C
Johnson	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Johnson	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Johnson	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Kearny	Monarch butterfly	<i>Danaus plexippus</i>	C
Kingman	Monarch butterfly	<i>Danaus plexippus</i>	C

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**TABLE A.4.2**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - KANSAS**

County	Common name	Scientific name	Status
Kingman	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Kingman	Whooping crane	<i>Grus americana</i>	E
Kiowa	Arkansas River shiner	<i>Notropis girardi</i>	T
Kiowa	Monarch butterfly	<i>Danaus plexippus</i>	C
Kiowa	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Kiowa	Whooping crane	<i>Grus americana</i>	E
Labette	American burying beetle	<i>Nicrophorus americanus</i>	T
Labette	Mead's milkweed	<i>Asclepias meadii</i>	T
Labette	Monarch butterfly	<i>Danaus plexippus</i>	C
Labette	Neosho madtom	<i>Noturus placidus</i>	T
Labette	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E
Labette	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Labette	Rabbitsfoot	<i>Quadrula cylindrica cylindrica</i>	T
Lane	Monarch butterfly	<i>Danaus plexippus</i>	C
Lane	Whooping crane	<i>Grus americana</i>	E
Leavenworth	Mead's milkweed	<i>Asclepias meadii</i>	T
Leavenworth	Monarch butterfly	<i>Danaus plexippus</i>	C
Leavenworth	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Leavenworth	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Leavenworth	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Lincoln	Monarch butterfly	<i>Danaus plexippus</i>	C
Lincoln	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Lincoln	Whooping crane	<i>Grus americana</i>	E
Linn	Mead's milkweed	<i>Asclepias meadii</i>	T
Linn	Monarch butterfly	<i>Danaus plexippus</i>	C
Linn	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Logan	Black-footed ferret	<i>Mustela nigripes</i>	E
Logan	Monarch butterfly	<i>Danaus plexippus</i>	C
Lyon	Monarch butterfly	<i>Danaus plexippus</i>	C
Lyon	Neosho madtom	<i>Noturus placidus</i>	T
Lyon	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E
Lyon	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Lyon	Topeka shiner	<i>Notropis topeka</i>	E
Lyon	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Marion	Monarch butterfly	<i>Danaus plexippus</i>	C
Marion	Neosho madtom	<i>Noturus placidus</i>	T

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**TABLE A.4.2**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - KANSAS**

County	Common name	Scientific name	Status
Marion	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Marion	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Marion	Topeka shiner	<i>Notropis topeka</i>	E
Marion	Whooping crane	<i>Grus americana</i>	E
Marshall	Monarch butterfly	<i>Danaus plexippus</i>	C
Marshall	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Marshall	Topeka shiner	<i>Notropis topeka</i>	E
Mcpherson	Monarch butterfly	<i>Danaus plexippus</i>	C
Mcpherson	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Mcpherson	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Mcpherson	Whooping crane	<i>Grus americana</i>	E
Meade	Arkansas River shiner	<i>Notropis girardi</i>	T
Meade	Monarch butterfly	<i>Danaus plexippus</i>	C
Meade	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Meade	Whooping crane	<i>Grus americana</i>	E
Miami	Mead's milkweed	<i>Asclepias meadii</i>	T
Miami	Monarch butterfly	<i>Danaus plexippus</i>	C
Miami	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Mitchell	Monarch butterfly	<i>Danaus plexippus</i>	C
Mitchell	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Mitchell	Whooping crane	<i>Grus americana</i>	E
Montgomery	American burying beetle	<i>Nicrophorus americanus</i>	T
Montgomery	Monarch butterfly	<i>Danaus plexippus</i>	C
Montgomery	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E
Montgomery	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Montgomery	Rabbitsfoot	<i>Quadrula cylindrica cylindrica</i>	T
Montgomery	Western fanshell	<i>Cyprogenia aberti</i>	T
Morris	Monarch butterfly	<i>Danaus plexippus</i>	C
Morris	Neosho madtom	<i>Noturus placidus</i>	T
Morris	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Morris	Topeka shiner	<i>Notropis topeka</i>	E
Morton	Arkansas River shiner	<i>Notropis girardi</i>	T
Morton	Monarch butterfly	<i>Danaus plexippus</i>	C
Nemaha	Monarch butterfly	<i>Danaus plexippus</i>	C
Nemaha	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Neosho	American burying beetle	<i>Nicrophorus americanus</i>	T

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**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - KANSAS**

County	Common name	Scientific name	Status
Neosho	Mead's milkweed	<i>Asclepias meadii</i>	T
Neosho	Monarch butterfly	<i>Danaus plexippus</i>	C
Neosho	Neosho madtom	<i>Noturus placidus</i>	T
Neosho	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E
Neosho	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Neosho	Rabbitsfoot	<i>Quadrula cylindrica cylindrica</i>	T
Neosho	Western fanshell	<i>Cyprogenia aberti</i>	T
Ness	Monarch butterfly	<i>Danaus plexippus</i>	C
Ness	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Ness	Whooping crane	<i>Grus americana</i>	E
Norton	Monarch butterfly	<i>Danaus plexippus</i>	C
Norton	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Norton	Whooping crane	<i>Grus americana</i>	E
Osage	Mead's milkweed	<i>Asclepias meadii</i>	T
Osage	Monarch butterfly	<i>Danaus plexippus</i>	C
Osage	Neosho madtom	<i>Noturus placidus</i>	T
Osage	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Osage	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Osborne	Monarch butterfly	<i>Danaus plexippus</i>	C
Osborne	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Osborne	Whooping crane	<i>Grus americana</i>	E
Ottawa	Monarch butterfly	<i>Danaus plexippus</i>	C
Ottawa	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Ottawa	Whooping crane	<i>Grus americana</i>	E
Pawnee	Monarch butterfly	<i>Danaus plexippus</i>	C
Pawnee	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Pawnee	Whooping crane	<i>Grus americana</i>	E
Phillips	Monarch butterfly	<i>Danaus plexippus</i>	C
Phillips	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Phillips	Whooping crane	<i>Grus americana</i>	E
Pottawatomie	Monarch butterfly	<i>Danaus plexippus</i>	C
Pottawatomie	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Pottawatomie	Piping plover	<i>Charadrius melodus</i>	T
Pottawatomie	Topeka shiner	<i>Notropis topeka</i>	E
Pratt	Monarch butterfly	<i>Danaus plexippus</i>	C
Pratt	Peppered chub	<i>Macrhybopsis tetranema</i>	E

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**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - KANSAS**

County	Common name	Scientific name	Status
Pratt	Whooping crane	<i>Grus americana</i>	E
Rawlins	Monarch butterfly	<i>Danaus plexippus</i>	C
Rawlins	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Rawlins	Whooping crane	<i>Grus americana</i>	E
Reno	Monarch butterfly	<i>Danaus plexippus</i>	C
Reno	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Reno	Rufa red knot	<i>Calidris canutus rufa</i>	T
Reno	Whooping crane	<i>Grus americana</i>	E
Republic	Monarch butterfly	<i>Danaus plexippus</i>	C
Republic	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Republic	Whooping crane	<i>Grus americana</i>	E
Rice	Monarch butterfly	<i>Danaus plexippus</i>	C
Rice	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Rice	Rufa red knot	<i>Calidris canutus rufa</i>	T
Rice	Whooping crane	<i>Grus americana</i>	E
Riley	Monarch butterfly	<i>Danaus plexippus</i>	C
Riley	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Riley	Piping plover	<i>Charadrius melodus</i>	T
Riley	Topeka shiner	<i>Notropis topeka</i>	E
Rooks	Monarch butterfly	<i>Danaus plexippus</i>	C
Rooks	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Rooks	Whooping crane	<i>Grus americana</i>	E
Rush	Monarch butterfly	<i>Danaus plexippus</i>	C
Rush	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Rush	Whooping crane	<i>Grus americana</i>	E
Russell	Monarch butterfly	<i>Danaus plexippus</i>	C
Russell	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Russell	Whooping crane	<i>Grus americana</i>	E
Saline	Monarch butterfly	<i>Danaus plexippus</i>	C
Saline	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Saline	Whooping crane	<i>Grus americana</i>	E
Scott	Monarch butterfly	<i>Danaus plexippus</i>	C
Sedgwick	Monarch butterfly	<i>Danaus plexippus</i>	C
Sedgwick	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Sedgwick	Whooping crane	<i>Grus americana</i>	E
Seward	Arkansas River shiner	<i>Notropis girardi</i>	T

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**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - KANSAS**

County	Common name	Scientific name	Status
Seward	Monarch butterfly	<i>Danaus plexippus</i>	C
Shawnee	Mead's milkweed	<i>Asclepias meadii</i>	T
Shawnee	Monarch butterfly	<i>Danaus plexippus</i>	C
Shawnee	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Shawnee	Topeka shiner	<i>Notropis topeka</i>	E
Sheridan	Monarch butterfly	<i>Danaus plexippus</i>	C
Sheridan	Whooping crane	<i>Grus americana</i>	E
Sherman	Monarch butterfly	<i>Danaus plexippus</i>	C
Smith	Monarch butterfly	<i>Danaus plexippus</i>	C
Smith	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Smith	Whooping crane	<i>Grus americana</i>	E
Stafford	Monarch butterfly	<i>Danaus plexippus</i>	C
Stafford	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Stafford	Rufa red knot	<i>Calidris canutus rufa</i>	T
Stafford	Whooping crane	<i>Grus americana</i>	E
Stanton	Monarch butterfly	<i>Danaus plexippus</i>	C
Stevens	Arkansas River shiner	<i>Notropis girardi</i>	T
Stevens	Monarch butterfly	<i>Danaus plexippus</i>	C
Sumner	Monarch butterfly	<i>Danaus plexippus</i>	C
Sumner	Peppered chub	<i>Macrhybopsis tetranema</i>	E
Sumner	Whooping crane	<i>Grus americana</i>	E
Thomas	Monarch butterfly	<i>Danaus plexippus</i>	C
Trego	Monarch butterfly	<i>Danaus plexippus</i>	C
Trego	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Trego	Whooping crane	<i>Grus americana</i>	E
Wabaunsee	Monarch butterfly	<i>Danaus plexippus</i>	C
Wabaunsee	Neosho madtom	<i>Noturus placidus</i>	T
Wabaunsee	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Wabaunsee	Piping plover	<i>Charadrius melodus</i>	T
Wabaunsee	Topeka shiner	<i>Notropis topeka</i>	E
Wabaunsee	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Wallace	Monarch butterfly	<i>Danaus plexippus</i>	C
Wallace	Topeka shiner	<i>Notropis topeka</i>	E
Washington	Monarch butterfly	<i>Danaus plexippus</i>	C
Washington	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Washington	Topeka shiner	<i>Notropis topeka</i>	E

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**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES - KANSAS**

County	Common name	Scientific name	Status
Wichita	Monarch butterfly	<i>Danaus plexippus</i>	C
Wilson	American burying beetle	<i>Nicrophorus americanus</i>	T
Wilson	Monarch butterfly	<i>Danaus plexippus</i>	C
Wilson	Neosho madtom	<i>Noturus placidus</i>	T
Wilson	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E
Wilson	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Wilson	Rabbitsfoot	<i>Quadrula cylindrica cylindrica</i>	T
Wilson	Western fanshell	<i>Cyprogenia aberti</i>	T
Woodson	American burying beetle	<i>Nicrophorus americanus</i>	T
Woodson	Mead's milkweed	<i>Asclepias meadii</i>	T
Woodson	Monarch butterfly	<i>Danaus plexippus</i>	C
Woodson	Neosho madtom	<i>Noturus placidus</i>	T
Woodson	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E
Woodson	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Woodson	Rabbitsfoot	<i>Quadrula cylindrica cylindrica</i>	T
Wyandotte	Mead's milkweed	<i>Asclepias meadii</i>	T
Wyandotte	Monarch butterfly	<i>Danaus plexippus</i>	C
Wyandotte	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Wyandotte	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E

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**TABLE A.4.3**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – MISSOURI**

County	Common name	Scientific name	Status
Adair	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Adair	Gray bat	<i>Myotis grisescens</i>	E
Adair	Indiana bat	<i>Myotis sodalis</i>	E
Adair	Mead's milkweed	<i>Asclepias meadii</i>	T
Adair	Monarch butterfly	<i>Danaus plexippus</i>	C
Adair	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Andrew	Indiana bat	<i>Myotis sodalis</i>	E
Andrew	Monarch butterfly	<i>Danaus plexippus</i>	C
Andrew	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Andrew	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Andrew	Rufa red knot	<i>Calidris canutus rufa</i>	T
Atchison	Indiana bat	<i>Myotis sodalis</i>	E
Atchison	Monarch butterfly	<i>Danaus plexippus</i>	C
Atchison	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Atchison	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Atchison	Rufa red knot	<i>Calidris canutus rufa</i>	T
Atchison	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Audrain	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Audrain	Gray bat	<i>Myotis grisescens</i>	E
Audrain	Indiana bat	<i>Myotis sodalis</i>	E
Audrain	Monarch butterfly	<i>Danaus plexippus</i>	C
Audrain	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Barry	Benton County cave crayfish	<i>Cambarus aculabrum</i>	E
Barry	Gray bat	<i>Myotis grisescens</i>	E
Barry	Indiana bat	<i>Myotis sodalis</i>	E
Barry	Monarch butterfly	<i>Danaus plexippus</i>	C
Barry	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E
Barry	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Barry	Ozark big-eared bat	<i>Corynorhinus townsendii ingens</i>	E
Barry	Ozark cavefish	<i>Amblyopsis rosae</i>	T
Barry	Snuffbox mussel	<i>Epioblasma triquetra</i>	E
Barton	Gray bat	<i>Myotis grisescens</i>	E
Barton	Indiana bat	<i>Myotis sodalis</i>	E
Barton	Mead's milkweed	<i>Asclepias meadii</i>	T
Barton	Monarch butterfly	<i>Danaus plexippus</i>	C

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**TABLE A.4.3**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – MISSOURI**

County	Common name	Scientific name	Status
Barton	Neosho madtom	<i>Noturus placidus</i>	T
Barton	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E
Barton	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Barton	Rabbitsfoot	<i>Quadrula cylindrica cylindrica</i>	T
Bates	Gray bat	<i>Myotis grisescens</i>	E
Bates	Indiana bat	<i>Myotis sodalis</i>	E
Bates	Mead's milkweed	<i>Asclepias meadii</i>	T
Bates	Monarch butterfly	<i>Danaus plexippus</i>	C
Bates	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Benton	Eastern hellbender	<i>Cryptobranchus alleganiensis</i>	E
Benton	Gray bat	<i>Myotis grisescens</i>	E
Benton	Indiana bat	<i>Myotis sodalis</i>	E
Benton	Mead's milkweed	<i>Asclepias meadii</i>	T
Benton	Monarch butterfly	<i>Danaus plexippus</i>	C
Benton	Niangua darter	<i>Etheostoma nianguae</i>	T
Benton	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Benton	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
Bollinger	Curtis pearlymussel	<i>Epioblasma florentina curtisii</i>	E
Bollinger	Gray bat	<i>Myotis grisescens</i>	E
Bollinger	Indiana bat	<i>Myotis sodalis</i>	E
Bollinger	Mead's milkweed	<i>Asclepias meadii</i>	T
Bollinger	Monarch butterfly	<i>Danaus plexippus</i>	C
Bollinger	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Boone	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Boone	Gray bat	<i>Myotis grisescens</i>	E
Boone	Indiana bat	<i>Myotis sodalis</i>	E
Boone	Monarch butterfly	<i>Danaus plexippus</i>	C
Boone	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Boone	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Boone	Rufa red knot	<i>Calidris canutus rufa</i>	T
Buchanan	Indiana bat	<i>Myotis sodalis</i>	E
Buchanan	Mead's milkweed	<i>Asclepias meadii</i>	T
Buchanan	Monarch butterfly	<i>Danaus plexippus</i>	C
Buchanan	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Buchanan	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Buchanan	Rufa red knot	<i>Calidris canutus rufa</i>	T

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**TABLE A.4.3**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – MISSOURI**

County	Common name	Scientific name	Status
Butler	Big creek crayfish	Faxonius peruncus	T
Butler	Curtis pearlymussel	Epioblasma florentina curtisii	E
Butler	Eastern prairie fringed orchid	Platanthera leucophaea	T
Butler	Gray bat	Myotis grisescens	E
Butler	Indiana bat	Myotis sodalis	E
Butler	Monarch butterfly	Danaus plexippus	C
Butler	Northern long-eared bat	Myotis septentrionalis	E
Butler	Pink mucket (pearlymussel)	Lampsilis abrupta	E
Butler	Pondberry	Lindera melissifolia	E
Butler	Rabbitsfoot	Quadrula cylindrica cylindrica	T
Butler	Snuffbox mussel	Epioblasma triquetra	E
Butler	St. Francis river crayfish	Faxonius quadruncus	T
Butler	Western fanshell	Cyprogenia aberti	T
Caldwell	Gray bat	Myotis grisescens	E
Caldwell	Indiana bat	Myotis sodalis	E
Caldwell	Mead's milkweed	Asclepias meadii	T
Caldwell	Monarch butterfly	Danaus plexippus	C
Caldwell	Northern long-eared bat	Myotis septentrionalis	E
Callaway	Eastern prairie fringed orchid	Platanthera leucophaea	T
Callaway	Gray bat	Myotis grisescens	E
Callaway	Indiana bat	Myotis sodalis	E
Callaway	Monarch butterfly	Danaus plexippus	C
Callaway	Northern long-eared bat	Myotis septentrionalis	E
Callaway	Pallid sturgeon	Scaphirhynchus albus	E
Callaway	Rufa red knot	Calidris canutus rufa	T
Callaway	Scaleshell mussel	Leptodea leptodon	E
Camden	Eastern hellbender	Cryptobranchus alleganiensis	E
Camden	Gray bat	Myotis grisescens	E
Camden	Indiana bat	Myotis sodalis	E
Camden	Mead's milkweed	Asclepias meadii	T
Camden	Monarch butterfly	Danaus plexippus	C
Camden	Niangua darter	Etheostoma nianguae	T
Camden	Northern long-eared bat	Myotis septentrionalis	E
Camden	Pink mucket (pearlymussel)	Lampsilis abrupta	E
Camden	Scaleshell mussel	Leptodea leptodon	E
Camden	Spectaclecase (mussel)	Cumberlandia monodonta	E

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**TABLE A.4.3**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – MISSOURI**

County	Common name	Scientific name	Status
Cape Girardeau	Decurrent false aster	<i>Boltonia decurrens</i>	T
Cape Girardeau	Gray bat	<i>Myotis grisescens</i>	E
Cape Girardeau	Indiana bat	<i>Myotis sodalis</i>	E
Cape Girardeau	Monarch butterfly	<i>Danaus plexippus</i>	C
Cape Girardeau	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Cape Girardeau	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Cape Girardeau	Rufa red knot	<i>Calidris canutus rufa</i>	T
Carroll	Gray bat	<i>Myotis grisescens</i>	E
Carroll	Indiana bat	<i>Myotis sodalis</i>	E
Carroll	Mead's milkweed	<i>Asclepias meadii</i>	T
Carroll	Monarch butterfly	<i>Danaus plexippus</i>	C
Carroll	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Carroll	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Carroll	Rufa red knot	<i>Calidris canutus rufa</i>	T
Carter	Curtis pearlymussel	<i>Epioblasma florentina curtisii</i>	E
Carter	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Carter	Gray bat	<i>Myotis grisescens</i>	E
Carter	Indiana bat	<i>Myotis sodalis</i>	E
Carter	Mead's milkweed	<i>Asclepias meadii</i>	T
Carter	Monarch butterfly	<i>Danaus plexippus</i>	C
Carter	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Carter	Ozark hellbender	<i>Cryptobranchus alleganiensis bishopi</i>	E
Carter	Pink mucket (pearlymussel)	<i>Lampsilis abrupta</i>	E
Carter	Snuffbox mussel	<i>Epioblasma triquetra</i>	E
Carter	Western fanshell	<i>Cyprogenia aberti</i>	T
Cass	Gray bat	<i>Myotis grisescens</i>	E
Cass	Indiana bat	<i>Myotis sodalis</i>	E
Cass	Mead's milkweed	<i>Asclepias meadii</i>	T
Cass	Monarch butterfly	<i>Danaus plexippus</i>	C
Cass	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Cedar	Gray bat	<i>Myotis grisescens</i>	E
Cedar	Indiana bat	<i>Myotis sodalis</i>	E
Cedar	Mead's milkweed	<i>Asclepias meadii</i>	T
Cedar	Monarch butterfly	<i>Danaus plexippus</i>	C
Cedar	Niangua darter	<i>Etheostoma nianguae</i>	T
Cedar	No common name	<i>Geocarpon minimum</i>	T

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**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – MISSOURI**

County	Common name	Scientific name	Status
Cedar	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Cedar	Pink mucket (pearlymussel)	<i>Lampsilis abrupta</i>	E
Cedar	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
Chariton	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Chariton	Gray bat	<i>Myotis grisescens</i>	E
Chariton	Indiana bat	<i>Myotis sodalis</i>	E
Chariton	Mead's milkweed	<i>Asclepias meadii</i>	T
Chariton	Monarch butterfly	<i>Danaus plexippus</i>	C
Chariton	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Chariton	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Chariton	Rufa red knot	<i>Calidris canutus rufa</i>	T
Christian	Gray bat	<i>Myotis grisescens</i>	E
Christian	Indiana bat	<i>Myotis sodalis</i>	E
Christian	Missouri bladderpod	<i>Physaria filiformis</i>	T
Christian	Monarch butterfly	<i>Danaus plexippus</i>	C
Christian	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E
Christian	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Christian	Ozark cavefish	<i>Amblyopsis rosae</i>	T
Christian	Virginia sneezeweed	<i>Helenium virginicum</i>	T
Clark	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Clark	Fat pocketbook	<i>Potamilus capax</i>	E
Clark	Gray bat	<i>Myotis grisescens</i>	E
Clark	Higgins eye (pearlymussel)	<i>Lampsilis higginsii</i>	E
Clark	Indiana bat	<i>Myotis sodalis</i>	E
Clark	Monarch butterfly	<i>Danaus plexippus</i>	C
Clark	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Clark	Rufa red knot	<i>Calidris canutus rufa</i>	T
Clay	Gray bat	<i>Myotis grisescens</i>	E
Clay	Indiana bat	<i>Myotis sodalis</i>	E
Clay	Monarch butterfly	<i>Danaus plexippus</i>	C
Clay	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Clay	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Clay	Rufa red knot	<i>Calidris canutus rufa</i>	T
Clinton	Gray bat	<i>Myotis grisescens</i>	E
Clinton	Indiana bat	<i>Myotis sodalis</i>	E
Clinton	Mead's milkweed	<i>Asclepias meadii</i>	T

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County	Common name	Scientific name	Status
Clinton	Monarch butterfly	<i>Danaus plexippus</i>	C
Clinton	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Cole	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Cole	Gray bat	<i>Myotis grisescens</i>	E
Cole	Indiana bat	<i>Myotis sodalis</i>	E
Cole	Monarch butterfly	<i>Danaus plexippus</i>	C
Cole	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Cole	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Cole	Pink mucket (pearly mussel)	<i>Lampsilis abrupta</i>	E
Cole	Rufa red knot	<i>Calidris canutus rufa</i>	T
Cole	Scaleshell mussel	<i>Leptodea leptodon</i>	E
Cole	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
Cole	Topeka shiner	<i>Notropis topeka</i>	E
Cooper	Gray bat	<i>Myotis grisescens</i>	E
Cooper	Indiana bat	<i>Myotis sodalis</i>	E
Cooper	Monarch butterfly	<i>Danaus plexippus</i>	C
Cooper	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Cooper	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Cooper	Rufa red knot	<i>Calidris canutus rufa</i>	T
Cooper	Topeka shiner	<i>Notropis topeka</i>	E
Crawford	Eastern hellbender	<i>Cryptobranchus alleganiensis</i>	E
Crawford	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Crawford	Gray bat	<i>Myotis grisescens</i>	E
Crawford	Hine's emerald dragonfly	<i>Somatochlora hineana</i>	E
Crawford	Indiana bat	<i>Myotis sodalis</i>	E
Crawford	Monarch butterfly	<i>Danaus plexippus</i>	C
Crawford	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Crawford	Scaleshell mussel	<i>Leptodea leptodon</i>	E
Crawford	Snuffbox mussel	<i>Epioblasma triquetra</i>	E
Crawford	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
Dade	Gray bat	<i>Myotis grisescens</i>	E
Dade	Indiana bat	<i>Myotis sodalis</i>	E
Dade	Mead's milkweed	<i>Asclepias meadii</i>	T
Dade	Missouri bladderpod	<i>Physaria filiformis</i>	T
Dade	Monarch butterfly	<i>Danaus plexippus</i>	C
Dade	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E

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**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – MISSOURI**

County	Common name	Scientific name	Status
Dade	No common name	<i>Geocarpon minimum</i>	T
Dade	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Dade	Ozark cavefish	<i>Amblyopsis rosae</i>	T
Dallas	Eastern hellbender	<i>Cryptobranchus alleganiensis</i>	E
Dallas	Gray bat	<i>Myotis grisescens</i>	E
Dallas	Indiana bat	<i>Myotis sodalis</i>	E
Dallas	Mead's milkweed	<i>Asclepias meadii</i>	T
Dallas	Monarch butterfly	<i>Danaus plexippus</i>	C
Dallas	Niangua darter	<i>Etheostoma nianguae</i>	T
Dallas	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Dallas	Scaleshell mussel	<i>Leptodea leptodon</i>	E
Dallas	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
Daviess	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Daviess	Gray bat	<i>Myotis grisescens</i>	E
Daviess	Indiana bat	<i>Myotis sodalis</i>	E
Daviess	Mead's milkweed	<i>Asclepias meadii</i>	T
Daviess	Monarch butterfly	<i>Danaus plexippus</i>	C
Daviess	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Daviess	Topeka shiner	<i>Notropis topeka</i>	E
Daviess	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
DeKalb	Indiana bat	<i>Myotis sodalis</i>	E
DeKalb	Mead's milkweed	<i>Asclepias meadii</i>	T
DeKalb	Monarch butterfly	<i>Danaus plexippus</i>	C
DeKalb	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Dent	Eastern hellbender	<i>Cryptobranchus alleganiensis</i>	E
Dent	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Dent	Gray bat	<i>Myotis grisescens</i>	E
Dent	Hine's emerald dragonfly	<i>Somatochlora hineana</i>	E
Dent	Indiana bat	<i>Myotis sodalis</i>	E
Dent	Monarch butterfly	<i>Danaus plexippus</i>	C
Dent	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Dent	Ozark hellbender	<i>Cryptobranchus alleganiensis bishopi</i>	E
Dent	Scaleshell mussel	<i>Leptodea leptodon</i>	E
Dent	Virginia sneezeweed	<i>Helenium virginicum</i>	T
Douglas	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Douglas	Gray bat	<i>Myotis grisescens</i>	E

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County	Common name	Scientific name	Status
Douglas	Indiana bat	<i>Myotis sodalis</i>	E
Douglas	Monarch butterfly	<i>Danaus plexippus</i>	C
Douglas	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Douglas	Ozark hellbender	<i>Cryptobranchus alleganiensis bishopi</i>	E
Douglas	Scaleshell mussel	<i>Leptodea leptodon</i>	E
Dunklin	Decurrent false aster	<i>Boltonia decurrens</i>	T
Dunklin	Fat pocketbook	<i>Potamilus capax</i>	E
Dunklin	Gray bat	<i>Myotis grisescens</i>	E
Dunklin	Indiana bat	<i>Myotis sodalis</i>	E
Dunklin	Monarch butterfly	<i>Danaus plexippus</i>	C
Dunklin	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Franklin	Decurrent false aster	<i>Boltonia decurrens</i>	T
Franklin	Eastern hellbender	<i>Cryptobranchus alleganiensis</i>	E
Franklin	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Franklin	Gray bat	<i>Myotis grisescens</i>	E
Franklin	Indiana bat	<i>Myotis sodalis</i>	E
Franklin	Monarch butterfly	<i>Danaus plexippus</i>	C
Franklin	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Franklin	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Franklin	Pink mucket (pearlymussel)	<i>Lampsilis abrupta</i>	E
Franklin	Rufa red knot	<i>Calidris canutus rufa</i>	T
Franklin	Scaleshell mussel	<i>Leptodea leptodon</i>	E
Franklin	Sheepnose mussel	<i>Plethobasus cyphus</i>	E
Franklin	Snuffbox mussel	<i>Epioblasma triquetra</i>	E
Franklin	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
Franklin	Winged mapleleaf	<i>Quadrula fragosa</i>	E
Gasconade	Eastern hellbender	<i>Cryptobranchus alleganiensis</i>	E
Gasconade	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Gasconade	Gray bat	<i>Myotis grisescens</i>	E
Gasconade	Indiana bat	<i>Myotis sodalis</i>	E
Gasconade	Monarch butterfly	<i>Danaus plexippus</i>	C
Gasconade	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Gasconade	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Gasconade	Pink mucket (pearlymussel)	<i>Lampsilis abrupta</i>	E
Gasconade	Rufa red knot	<i>Calidris canutus rufa</i>	T
Gasconade	Scaleshell mussel	<i>Leptodea leptodon</i>	E

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County	Common name	Scientific name	Status
Gasconade	Snuffbox mussel	<i>Epioblasma triquetra</i>	E
Gasconade	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
Gasconade	Winged mapleleaf	<i>Quadrula fragosa</i>	E
Gentry	Indiana bat	<i>Myotis sodalis</i>	E
Gentry	Mead's milkweed	<i>Asclepias meadii</i>	T
Gentry	Monarch butterfly	<i>Danaus plexippus</i>	C
Gentry	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Greene	Gray bat	<i>Myotis grisescens</i>	E
Greene	Indiana bat	<i>Myotis sodalis</i>	E
Greene	Missouri bladderpod	<i>Physaria filiformis</i>	T
Greene	Monarch butterfly	<i>Danaus plexippus</i>	C
Greene	Niangua darter	<i>Etheostoma nianguae</i>	T
Greene	No common name	<i>Geocarpon minimum</i>	T
Greene	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Greene	Ozark cavefish	<i>Amblyopsis rosae</i>	T
Grundy	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Grundy	Gray bat	<i>Myotis grisescens</i>	E
Grundy	Indiana bat	<i>Myotis sodalis</i>	E
Grundy	Mead's milkweed	<i>Asclepias meadii</i>	T
Grundy	Monarch butterfly	<i>Danaus plexippus</i>	C
Grundy	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Grundy	Topeka shiner	<i>Notropis topeka</i>	E
Grundy	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Harrison	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Harrison	Indiana bat	<i>Myotis sodalis</i>	E
Harrison	Mead's milkweed	<i>Asclepias meadii</i>	T
Harrison	Monarch butterfly	<i>Danaus plexippus</i>	C
Harrison	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Harrison	Topeka shiner	<i>Notropis topeka</i>	E
Harrison	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Henry	Gray bat	<i>Myotis grisescens</i>	E
Henry	Indiana bat	<i>Myotis sodalis</i>	E
Henry	Mead's milkweed	<i>Asclepias meadii</i>	T
Henry	Monarch butterfly	<i>Danaus plexippus</i>	C
Henry	No common name	<i>Geocarpon minimum</i>	T
Henry	Northern long-eared bat	<i>Myotis septentrionalis</i>	E

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**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – MISSOURI**

County	Common name	Scientific name	Status
Hickory	Eastern hellbender	<i>Cryptobranchus alleganiensis</i>	E
Hickory	Gray bat	<i>Myotis grisescens</i>	E
Hickory	Indiana bat	<i>Myotis sodalis</i>	E
Hickory	Mead's milkweed	<i>Asclepias meadii</i>	T
Hickory	Monarch butterfly	<i>Danaus plexippus</i>	C
Hickory	Niangua darter	<i>Etheostoma nianguae</i>	T
Hickory	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Hickory	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
Holt	Indiana bat	<i>Myotis sodalis</i>	E
Holt	Monarch butterfly	<i>Danaus plexippus</i>	C
Holt	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Holt	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Holt	Rufa red knot	<i>Calidris canutus rufa</i>	T
Holt	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Howard	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Howard	Gray bat	<i>Myotis grisescens</i>	E
Howard	Indiana bat	<i>Myotis sodalis</i>	E
Howard	Monarch butterfly	<i>Danaus plexippus</i>	C
Howard	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Howard	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Howard	Rufa red knot	<i>Calidris canutus rufa</i>	T
Howell	Decurrent false aster	<i>Boltonia decurrens</i>	T
Howell	Eastern hellbender	<i>Cryptobranchus alleganiensis</i>	E
Howell	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Howell	Gray bat	<i>Myotis grisescens</i>	E
Howell	Indiana bat	<i>Myotis sodalis</i>	E
Howell	Monarch butterfly	<i>Danaus plexippus</i>	C
Howell	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Howell	Ozark hellbender	<i>Cryptobranchus alleganiensis bishopi</i>	E
Howell	Snuffbox mussel	<i>Epioblasma triquetra</i>	E
Howell	Virginia sneezeweed	<i>Helenium virginicum</i>	T
Howell	Western fanshell	<i>Cyprogenia aberti</i>	T
Iron	Big creek crayfish	<i>Faxonius peruncus</i>	T
Iron	Eastern hellbender	<i>Cryptobranchus alleganiensis</i>	E
Iron	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Iron	Gray bat	<i>Myotis grisescens</i>	E

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**TABLE A.4.3**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – MISSOURI**

County	Common name	Scientific name	Status
Iron	Hine's emerald dragonfly	<i>Somatochlora hineana</i>	E
Iron	Indiana bat	<i>Myotis sodalis</i>	E
Iron	Mead's milkweed	<i>Asclepias meadii</i>	T
Iron	Monarch butterfly	<i>Danaus plexippus</i>	C
Iron	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Iron	Pink mucket (pearlymussel)	<i>Lampsilis abrupta</i>	E
Iron	Rabbitsfoot	<i>Quadrula cylindrica cylindrica</i>	T
Iron	Scaleshell mussel	<i>Leptodea leptodon</i>	E
Iron	St. Francis river crayfish	<i>Faxonius quadruncus</i>	T
Iron	Western fanshell	<i>Cyprogenia aberti</i>	T
Jackson	Gray bat	<i>Myotis grisescens</i>	E
Jackson	Indiana bat	<i>Myotis sodalis</i>	E
Jackson	Mead's milkweed	<i>Asclepias meadii</i>	T
Jackson	Monarch butterfly	<i>Danaus plexippus</i>	C
Jackson	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Jackson	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Jackson	Rufa red knot	<i>Calidris canutus rufa</i>	T
Jasper	Gray bat	<i>Myotis grisescens</i>	E
Jasper	Indiana bat	<i>Myotis sodalis</i>	E
Jasper	Mead's milkweed	<i>Asclepias meadii</i>	T
Jasper	Monarch butterfly	<i>Danaus plexippus</i>	C
Jasper	Neosho madtom	<i>Noturus placidus</i>	T
Jasper	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E
Jasper	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Jasper	Ozark cavefish	<i>Amblyopsis rosae</i>	T
Jasper	Rabbitsfoot	<i>Quadrula cylindrica cylindrica</i>	T
Jasper	Western fanshell	<i>Cyprogenia aberti</i>	T
Jefferson	Eastern hellbender	<i>Cryptobranchus alleganiensis</i>	E
Jefferson	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Jefferson	Gray bat	<i>Myotis grisescens</i>	E
Jefferson	Indiana bat	<i>Myotis sodalis</i>	E
Jefferson	Monarch butterfly	<i>Danaus plexippus</i>	C
Jefferson	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Jefferson	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Jefferson	Pink mucket (pearlymussel)	<i>Lampsilis abrupta</i>	E
Jefferson	Rufa red knot	<i>Calidris canutus rufa</i>	T

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**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – MISSOURI**

County	Common name	Scientific name	Status
Jefferson	Scaleshell mussel	Leptodea leptodon	E
Jefferson	Sheepnose mussel	Plethobasus cyphus	E
Jefferson	Snuffbox mussel	Epioblasma triquetra	E
Jefferson	Spectaclecase (mussel)	Cumberlandia monodonta	E
Johnson	Gray bat	Myotis grisescens	E
Johnson	Indiana bat	Myotis sodalis	E
Johnson	Mead's milkweed	Asclepias meadii	T
Johnson	Monarch butterfly	Danaus plexippus	C
Johnson	Northern long-eared bat	Myotis septentrionalis	E
Knox	Eastern prairie fringed orchid	Platanthera leucophaea	T
Knox	Gray bat	Myotis grisescens	E
Knox	Indiana bat	Myotis sodalis	E
Knox	Monarch butterfly	Danaus plexippus	C
Knox	Northern long-eared bat	Myotis septentrionalis	E
Laclede	Eastern hellbender	Cryptobranchus alleganiensis	E
Laclede	Gray bat	Myotis grisescens	E
Laclede	Indiana bat	Myotis sodalis	E
Laclede	Monarch butterfly	Danaus plexippus	C
Laclede	Niangua darter	Etheostoma nianguae	T
Laclede	Northern long-eared bat	Myotis septentrionalis	E
Laclede	Scaleshell mussel	Leptodea leptodon	E
Laclede	Spectaclecase (mussel)	Cumberlandia monodonta	E
Lafayette	Gray bat	Myotis grisescens	E
Lafayette	Indiana bat	Myotis sodalis	E
Lafayette	Mead's milkweed	Asclepias meadii	T
Lafayette	Monarch butterfly	Danaus plexippus	C
Lafayette	Northern long-eared bat	Myotis septentrionalis	E
Lafayette	Pallid sturgeon	Scaphirhynchus albus	E
Lafayette	Rufa red knot	Calidris canutus rufa	T
Lawrence	Gray bat	Myotis grisescens	E
Lawrence	Indiana bat	Myotis sodalis	E
Lawrence	Mead's milkweed	Asclepias meadii	T
Lawrence	Missouri bladderpod	Physaria filiformis	T
Lawrence	Monarch butterfly	Danaus plexippus	C
Lawrence	Neosho mucket	Lampsilis rafinesqueana	E
Lawrence	No common name	Geocarpon minimum	T

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**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – MISSOURI**

County	Common name	Scientific name	Status
Lawrence	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Lawrence	Ozark cavefish	<i>Amblyopsis rosae</i>	T
Lawrence	Rabbitsfoot	<i>Quadrula cylindrica cylindrica</i>	T
Lewis	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Lewis	Gray bat	<i>Myotis grisescens</i>	E
Lewis	Higgins eye (pearlymussel)	<i>Lampsilis higginsii</i>	E
Lewis	Indiana bat	<i>Myotis sodalis</i>	E
Lewis	Monarch butterfly	<i>Danaus plexippus</i>	C
Lewis	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Lewis	Rufa red knot	<i>Calidris canutus rufa</i>	T
Lincoln	Decurrent false aster	<i>Boltonia decurrens</i>	T
Lincoln	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Lincoln	Gray bat	<i>Myotis grisescens</i>	E
Lincoln	Indiana bat	<i>Myotis sodalis</i>	E
Lincoln	Monarch butterfly	<i>Danaus plexippus</i>	C
Lincoln	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Lincoln	Rufa red knot	<i>Calidris canutus rufa</i>	T
Lincoln	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
Linn	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Linn	Gray bat	<i>Myotis grisescens</i>	E
Linn	Indiana bat	<i>Myotis sodalis</i>	E
Linn	Mead's milkweed	<i>Asclepias meadii</i>	T
Linn	Monarch butterfly	<i>Danaus plexippus</i>	C
Linn	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Livingston	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Livingston	Gray bat	<i>Myotis grisescens</i>	E
Livingston	Indiana bat	<i>Myotis sodalis</i>	E
Livingston	Mead's milkweed	<i>Asclepias meadii</i>	T
Livingston	Monarch butterfly	<i>Danaus plexippus</i>	C
Livingston	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Livingston	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Macon	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Macon	Gray bat	<i>Myotis grisescens</i>	E
Macon	Indiana bat	<i>Myotis sodalis</i>	E
Macon	Mead's milkweed	<i>Asclepias meadii</i>	T
Macon	Monarch butterfly	<i>Danaus plexippus</i>	C

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County	Common name	Scientific name	Status
Macon	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Madison	Big creek crayfish	<i>Faxonius peruncus</i>	T
Madison	Curtis pearlymussel	<i>Epioblasma florentina curtisii</i>	E
Madison	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Madison	Gray bat	<i>Myotis grisescens</i>	E
Madison	Indiana bat	<i>Myotis sodalis</i>	E
Madison	Mead's milkweed	<i>Asclepias meadii</i>	T
Madison	Monarch butterfly	<i>Danaus plexippus</i>	C
Madison	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Madison	Rabbitsfoot	<i>Quadrula cylindrica cylindrica</i>	T
Madison	Snuffbox mussel	<i>Epioblasma triquetra</i>	E
Madison	St. Francis river crayfish	<i>Faxonius quadruncus</i>	T
Madison	Western fanshell	<i>Cyprogenia aberti</i>	T
Maries	Eastern hellbender	<i>Cryptobranchus alleganiensis</i>	E
Maries	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Maries	Gray bat	<i>Myotis grisescens</i>	E
Maries	Indiana bat	<i>Myotis sodalis</i>	E
Maries	Monarch butterfly	<i>Danaus plexippus</i>	C
Maries	Niangua darter	<i>Etheostoma nianguae</i>	T
Maries	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Maries	Pink mucket (pearlymussel)	<i>Lampsilis abrupta</i>	E
Maries	Scaleshell mussel	<i>Leptodea leptodon</i>	E
Maries	Snuffbox mussel	<i>Epioblasma triquetra</i>	E
Maries	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
Marion	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Marion	Fat pocketbook	<i>Potamilus capax</i>	E
Marion	Gray bat	<i>Myotis grisescens</i>	E
Marion	Higgins eye (pearlymussel)	<i>Lampsilis higginsii</i>	E
Marion	Indiana bat	<i>Myotis sodalis</i>	E
Marion	Monarch butterfly	<i>Danaus plexippus</i>	C
Marion	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Marion	Rufa red knot	<i>Calidris canutus rufa</i>	T
Marion	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
McDonald	Benton County cave crayfish	<i>Cambarus aculabrum</i>	E
McDonald	Gray bat	<i>Myotis grisescens</i>	E
McDonald	Indiana bat	<i>Myotis sodalis</i>	E

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**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – MISSOURI**

County	Common name	Scientific name	Status
McDonald	Monarch butterfly	<i>Danaus plexippus</i>	C
McDonald	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E
McDonald	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
McDonald	Ozark cavefish	<i>Amblyopsis rosae</i>	T
Mercer	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Mercer	Indiana bat	<i>Myotis sodalis</i>	E
Mercer	Mead's milkweed	<i>Asclepias meadii</i>	T
Mercer	Monarch butterfly	<i>Danaus plexippus</i>	C
Mercer	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Mercer	Topeka shiner	<i>Notropis topeka</i>	E
Mercer	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Miller	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Miller	Gray bat	<i>Myotis grisescens</i>	E
Miller	Indiana bat	<i>Myotis sodalis</i>	E
Miller	Monarch butterfly	<i>Danaus plexippus</i>	C
Miller	Niangua darter	<i>Etheostoma nianguae</i>	T
Miller	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Miller	Pink mucket (pearlymussel)	<i>Lampsilis abrupta</i>	E
Miller	Scaleshell mussel	<i>Leptodea leptodon</i>	E
Miller	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
Mississippi	Decurrent false aster	<i>Boltonia decurrens</i>	T
Mississippi	Fat pocketbook	<i>Potamilus capax</i>	E
Mississippi	Gray bat	<i>Myotis grisescens</i>	E
Mississippi	Indiana bat	<i>Myotis sodalis</i>	E
Mississippi	Longsolid	<i>Fusconaia subrotunda</i>	T
Mississippi	Monarch butterfly	<i>Danaus plexippus</i>	C
Mississippi	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Mississippi	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Mississippi	Pink mucket (pearlymussel)	<i>Lampsilis abrupta</i>	E
Mississippi	Rufa red knot	<i>Calidris canutus rufa</i>	T
Moniteau	Gray bat	<i>Myotis grisescens</i>	E
Moniteau	Indiana bat	<i>Myotis sodalis</i>	E
Moniteau	Mead's milkweed	<i>Asclepias meadii</i>	T
Moniteau	Monarch butterfly	<i>Danaus plexippus</i>	C
Moniteau	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Moniteau	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E

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County	Common name	Scientific name	Status
Moniteau	Rufa red knot	<i>Calidris canutus rufa</i>	T
Moniteau	Topeka shiner	<i>Notropis topeka</i>	E
Monroe	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Monroe	Gray bat	<i>Myotis grisescens</i>	E
Monroe	Indiana bat	<i>Myotis sodalis</i>	E
Monroe	Monarch butterfly	<i>Danaus plexippus</i>	C
Monroe	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Montgomery	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Montgomery	Gray bat	<i>Myotis grisescens</i>	E
Montgomery	Indiana bat	<i>Myotis sodalis</i>	E
Montgomery	Monarch butterfly	<i>Danaus plexippus</i>	C
Montgomery	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Montgomery	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Montgomery	Rufa red knot	<i>Calidris canutus rufa</i>	T
Montgomery	Scaleshell mussel	<i>Leptodea leptodon</i>	E
Morgan	Gray bat	<i>Myotis grisescens</i>	E
Morgan	Hine's emerald dragonfly	<i>Somatochlora hineana</i>	E
Morgan	Indiana bat	<i>Myotis sodalis</i>	E
Morgan	Mead's milkweed	<i>Asclepias meadii</i>	T
Morgan	Monarch butterfly	<i>Danaus plexippus</i>	C
Morgan	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
New Madrid	Gray bat	<i>Myotis grisescens</i>	E
New Madrid	Indiana bat	<i>Myotis sodalis</i>	E
New Madrid	Monarch butterfly	<i>Danaus plexippus</i>	C
New Madrid	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
New Madrid	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
New Madrid	Rufa red knot	<i>Calidris canutus rufa</i>	T
Newton	Gray bat	<i>Myotis grisescens</i>	E
Newton	Indiana bat	<i>Myotis sodalis</i>	E
Newton	Mead's milkweed	<i>Asclepias meadii</i>	T
Newton	Monarch butterfly	<i>Danaus plexippus</i>	C
Newton	Neosho madtom	<i>Noturus placidus</i>	T
Newton	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E
Newton	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Newton	Ozark cavefish	<i>Amblyopsis rosae</i>	T
Newton	Rabbitsfoot	<i>Quadrula cylindrica cylindrica</i>	T

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County	Common name	Scientific name	Status
Newton	Western fanshell	Cyprogenia aberti	T
Nodaway	Indiana bat	Myotis sodalis	E
Nodaway	Monarch butterfly	Danaus plexippus	C
Nodaway	Northern long-eared bat	Myotis septentrionalis	E
Nodaway	Western prairie fringed orchid	Platanthera praeclara	T
Oregon	Eastern prairie fringed orchid	Platanthera leucophaea	T
Oregon	Gray bat	Myotis grisescens	E
Oregon	Indiana bat	Myotis sodalis	E
Oregon	Monarch butterfly	Danaus plexippus	C
Oregon	Northern long-eared bat	Myotis septentrionalis	E
Oregon	Ozark hellbender	Cryptobranchus alleganiensis bishopi	E
Oregon	Pink mucket (pearlymussel)	Lampsilis abrupta	E
Oregon	Snuffbox mussel	Epioblasma triquetra	E
Oregon	Virginia sneezeweed	Helenium virginicum	T
Osage	Eastern hellbender	Cryptobranchus alleganiensis	E
Osage	Eastern prairie fringed orchid	Platanthera leucophaea	T
Osage	Gray bat	Myotis grisescens	E
Osage	Indiana bat	Myotis sodalis	E
Osage	Monarch butterfly	Danaus plexippus	C
Osage	Niangua darter	Etheostoma nianguae	T
Osage	Northern long-eared bat	Myotis septentrionalis	E
Osage	Pallid sturgeon	Scaphirhynchus albus	E
Osage	Pink mucket (pearlymussel)	Lampsilis abrupta	E
Osage	Rufa red knot	Calidris canutus rufa	T
Osage	Scaleshell mussel	Leptodea leptodon	E
Osage	Spectaclecase (mussel)	Cumberlandia monodonta	E
Ozark	Eastern prairie fringed orchid	Platanthera leucophaea	T
Ozark	Gray bat	Myotis grisescens	E
Ozark	Indiana bat	Myotis sodalis	E
Ozark	Monarch butterfly	Danaus plexippus	C
Ozark	Northern long-eared bat	Myotis septentrionalis	E
Ozark	Ozark hellbender	Cryptobranchus alleganiensis bishopi	E
Pemiscot	Gray bat	Myotis grisescens	E
Pemiscot	Indiana bat	Myotis sodalis	E
Pemiscot	Monarch butterfly	Danaus plexippus	C
Pemiscot	Northern long-eared bat	Myotis septentrionalis	E

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County	Common name	Scientific name	Status
Pemiscot	Pallid sturgeon	Scaphirhynchus albus	E
Pemiscot	Rufa red knot	Calidris canutus rufa	T
Perry	Bluestone sculpin	Cottus sp.	SC
Perry	Curtis pearlymussel	Epioblasma florentina curtisii	E
Perry	Gray bat	Myotis grisescens	E
Perry	Grotto sculpin	Cottus specus	E
Perry	Indiana bat	Myotis sodalis	E
Perry	Mead's milkweed	Asclepias meadii	T
Perry	Monarch butterfly	Danaus plexippus	C
Perry	Northern long-eared bat	Myotis septentrionalis	E
Perry	Pallid sturgeon	Scaphirhynchus albus	E
Perry	Rufa red knot	Calidris canutus rufa	T
Pettis	Gray bat	Myotis grisescens	E
Pettis	Indiana bat	Myotis sodalis	E
Pettis	Mead's milkweed	Asclepias meadii	T
Pettis	Monarch butterfly	Danaus plexippus	C
Pettis	Northern long-eared bat	Myotis septentrionalis	E
Phelps	Eastern hellbender	Cryptobranchus alleganiensis	E
Phelps	Eastern prairie fringed orchid	Platanthera leucophaea	T
Phelps	Gray bat	Myotis grisescens	E
Phelps	Hine's emerald dragonfly	Somatochlora hineana	E
Phelps	Indiana bat	Myotis sodalis	E
Phelps	Monarch butterfly	Danaus plexippus	C
Phelps	Northern long-eared bat	Myotis septentrionalis	E
Phelps	Scaleshell mussel	Leptodea leptodon	E
Phelps	Snuffbox mussel	Epioblasma triquetra	E
Phelps	Spectaclecase (mussel)	Cumberlandia monodonta	E
Pike	Decurrent false aster	Boltonia decurrens	T
Pike	Eastern prairie fringed orchid	Platanthera leucophaea	T
Pike	Fat pocketbook	Potamilus capax	E
Pike	Gray bat	Myotis grisescens	E
Pike	Indiana bat	Myotis sodalis	E
Pike	Monarch butterfly	Danaus plexippus	C
Pike	Northern long-eared bat	Myotis septentrionalis	E
Pike	Rufa red knot	Calidris canutus rufa	T
Pike	Spectaclecase (mussel)	Cumberlandia monodonta	E

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**TABLE A.4.3**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – MISSOURI**

County	Common name	Scientific name	Status
Platte	Gray bat	<i>Myotis grisescens</i>	E
Platte	Indiana bat	<i>Myotis sodalis</i>	E
Platte	Monarch butterfly	<i>Danaus plexippus</i>	C
Platte	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Platte	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Platte	Rufa red knot	<i>Calidris canutus rufa</i>	T
Polk	Gray bat	<i>Myotis grisescens</i>	E
Polk	Indiana bat	<i>Myotis sodalis</i>	E
Polk	Mead's milkweed	<i>Asclepias meadii</i>	T
Polk	Monarch butterfly	<i>Danaus plexippus</i>	C
Polk	Niangua darter	<i>Etheostoma nianguae</i>	T
Polk	No common name	<i>Geocarpon minimum</i>	T
Polk	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Polk	Ozark cavefish	<i>Amblyopsis rosae</i>	T
Polk	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
Pulaski	Eastern hellbender	<i>Cryptobranchus alleganiensis</i>	E
Pulaski	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Pulaski	Gray bat	<i>Myotis grisescens</i>	E
Pulaski	Indiana bat	<i>Myotis sodalis</i>	E
Pulaski	Monarch butterfly	<i>Danaus plexippus</i>	C
Pulaski	Niangua darter	<i>Etheostoma nianguae</i>	T
Pulaski	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Pulaski	Scaleshell mussel	<i>Leptodea leptodon</i>	E
Pulaski	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
Putnam	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Putnam	Indiana bat	<i>Myotis sodalis</i>	E
Putnam	Mead's milkweed	<i>Asclepias meadii</i>	T
Putnam	Monarch butterfly	<i>Danaus plexippus</i>	C
Putnam	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Ralls	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Ralls	Fat pocketbook	<i>Potamilus capax</i>	E
Ralls	Gray bat	<i>Myotis grisescens</i>	E
Ralls	Higgins eye (pearlymussel)	<i>Lampsilis higginsii</i>	E
Ralls	Indiana bat	<i>Myotis sodalis</i>	E
Ralls	Monarch butterfly	<i>Danaus plexippus</i>	C
Ralls	Northern long-eared bat	<i>Myotis septentrionalis</i>	E

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**TABLE A.4.3**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – MISSOURI**

County	Common name	Scientific name	Status
Ralls	Rufa red knot	<i>Calidris canutus rufa</i>	T
Ralls	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
Randolph	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Randolph	Gray bat	<i>Myotis grisescens</i>	E
Randolph	Indiana bat	<i>Myotis sodalis</i>	E
Randolph	Monarch butterfly	<i>Danaus plexippus</i>	C
Randolph	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Ray	Gray bat	<i>Myotis grisescens</i>	E
Ray	Indiana bat	<i>Myotis sodalis</i>	E
Ray	Mead's milkweed	<i>Asclepias meadii</i>	T
Ray	Monarch butterfly	<i>Danaus plexippus</i>	C
Ray	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Ray	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Ray	Rufa red knot	<i>Calidris canutus rufa</i>	T
Reynolds	Big creek crayfish	<i>Faxonius peruncus</i>	T
Reynolds	Eastern hellbender	<i>Cryptobranchus alleganiensis</i>	E
Reynolds	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Reynolds	Gray bat	<i>Myotis grisescens</i>	E
Reynolds	Hine's emerald dragonfly	<i>Somatochlora hineana</i>	E
Reynolds	Indiana bat	<i>Myotis sodalis</i>	E
Reynolds	Mead's milkweed	<i>Asclepias meadii</i>	T
Reynolds	Monarch butterfly	<i>Danaus plexippus</i>	C
Reynolds	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Reynolds	Ozark hellbender	<i>Cryptobranchus alleganiensis bishopi</i>	E
Reynolds	Pink mucket (pearlymussel)	<i>Lampsilis abrupta</i>	E
Reynolds	St. Francis river crayfish	<i>Faxonius quadruncus</i>	T
Reynolds	Western fanshell	<i>Cyprogenia aberti</i>	T
Ripley	Curtis pearlymussel	<i>Epioblasma florentina curtisii</i>	E
Ripley	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Ripley	Gray bat	<i>Myotis grisescens</i>	E
Ripley	Hine's emerald dragonfly	<i>Somatochlora hineana</i>	E
Ripley	Indiana bat	<i>Myotis sodalis</i>	E
Ripley	Monarch butterfly	<i>Danaus plexippus</i>	C
Ripley	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Ripley	Ozark hellbender	<i>Cryptobranchus alleganiensis bishopi</i>	E
Ripley	Pink mucket (pearlymussel)	<i>Lampsilis abrupta</i>	E

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**TABLE A.4.3**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – MISSOURI**

County	Common name	Scientific name	Status
Ripley	Pondberry	<i>Lindera melissifolia</i>	E
Ripley	Snuffbox mussel	<i>Epioblasma triquetra</i>	E
Saline	Gray bat	<i>Myotis grisescens</i>	E
Saline	Indiana bat	<i>Myotis sodalis</i>	E
Saline	Monarch butterfly	<i>Danaus plexippus</i>	C
Saline	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Saline	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Saline	Rufa red knot	<i>Calidris canutus rufa</i>	T
Schuyler	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Schuyler	Indiana bat	<i>Myotis sodalis</i>	E
Schuyler	Monarch butterfly	<i>Danaus plexippus</i>	C
Schuyler	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Scotland	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Scotland	Gray bat	<i>Myotis grisescens</i>	E
Scotland	Indiana bat	<i>Myotis sodalis</i>	E
Scotland	Monarch butterfly	<i>Danaus plexippus</i>	C
Scotland	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Scott	Gray bat	<i>Myotis grisescens</i>	E
Scott	Indiana bat	<i>Myotis sodalis</i>	E
Scott	Monarch butterfly	<i>Danaus plexippus</i>	C
Scott	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Scott	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Scott	Rufa red knot	<i>Calidris canutus rufa</i>	T
Shannon	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Shannon	Gray bat	<i>Myotis grisescens</i>	E
Shannon	Hine's emerald dragonfly	<i>Somatochlora hineana</i>	E
Shannon	Indiana bat	<i>Myotis sodalis</i>	E
Shannon	Mead's milkweed	<i>Asclepias meadii</i>	T
Shannon	Monarch butterfly	<i>Danaus plexippus</i>	C
Shannon	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Shannon	Ozark hellbender	<i>Cryptobranchus alleganiensis bishopi</i>	E
Shannon	Virginia sneezeweed	<i>Helenium virginicum</i>	T
Shelby	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Shelby	Gray bat	<i>Myotis grisescens</i>	E
Shelby	Indiana bat	<i>Myotis sodalis</i>	E
Shelby	Monarch butterfly	<i>Danaus plexippus</i>	C

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**TABLE A.4.3**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – MISSOURI**

County	Common name	Scientific name	Status
Shelby	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
St. Charles	Decurrent false aster	<i>Boltonia decurrens</i>	T
St. Charles	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
St. Charles	Gray bat	<i>Myotis grisescens</i>	E
St. Charles	Indiana bat	<i>Myotis sodalis</i>	E
St. Charles	Monarch butterfly	<i>Danaus plexippus</i>	C
St. Charles	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
St. Charles	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
St. Charles	Rufa red knot	<i>Calidris canutus rufa</i>	T
St. Charles	Scaleshell mussel	<i>Leptodea leptodon</i>	E
St. Charles	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
St. Clair	Gray bat	<i>Myotis grisescens</i>	E
St. Clair	Indiana bat	<i>Myotis sodalis</i>	E
St. Clair	Mead's milkweed	<i>Asclepias meadii</i>	T
St. Clair	Monarch butterfly	<i>Danaus plexippus</i>	C
St. Clair	Niangua darter	<i>Etheostoma nianguae</i>	T
St. Clair	No common name	<i>Geocarpon minimum</i>	T
St. Clair	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
St. Clair	Pink mucket (pearlymussel)	<i>Lampsilis abrupta</i>	E
St. Clair	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
St. Francois	Big creek crayfish	<i>Faxonius peruncus</i>	T
St. Francois	Curtis pearlymussel	<i>Epioblasma florentina curtisii</i>	E
St. Francois	Eastern hellbender	<i>Cryptobranchus alleganiensis</i>	E
St. Francois	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
St. Francois	Gray bat	<i>Myotis grisescens</i>	E
St. Francois	Hine's emerald dragonfly	<i>Somatochlora hineana</i>	E
St. Francois	Indiana bat	<i>Myotis sodalis</i>	E
St. Francois	Mead's milkweed	<i>Asclepias meadii</i>	T
St. Francois	Monarch butterfly	<i>Danaus plexippus</i>	C
St. Francois	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
St. Francois	Scaleshell mussel	<i>Leptodea leptodon</i>	E
St. Francois	St. Francis river crayfish	<i>Faxonius quadruncus</i>	T
St. Francois	Western fanshell	<i>Cyprogenia aberti</i>	T
St. Louis	Decurrent false aster	<i>Boltonia decurrens</i>	T
St. Louis	Eastern hellbender	<i>Cryptobranchus alleganiensis</i>	E
St. Louis	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T

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**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – MISSOURI**

County	Common name	Scientific name	Status
St. Louis	Gray bat	<i>Myotis grisescens</i>	E
St. Louis	Indiana bat	<i>Myotis sodalis</i>	E
St. Louis	Monarch butterfly	<i>Danaus plexippus</i>	C
St. Louis	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
St. Louis	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
St. Louis	Pink mucket (pearlymussel)	<i>Lampsilis abrupta</i>	E
St. Louis	Rufa red knot	<i>Calidris canutus rufa</i>	T
St. Louis	Scaleshell mussel	<i>Leptodea leptodon</i>	E
St. Louis	Sheepnose mussel	<i>Plethobasus cyphus</i>	E
St. Louis	Snuffbox mussel	<i>Epioblasma triquetra</i>	E
St. Louis	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
Ste. Genevieve	Big creek crayfish	<i>Faxonius peruncus</i>	T
Ste. Genevieve	Curtis pearlymussel	<i>Epioblasma florentina curtisii</i>	E
Ste. Genevieve	Eastern hellbender	<i>Cryptobranchus alleganiensis</i>	E
Ste. Genevieve	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Ste. Genevieve	Gray bat	<i>Myotis grisescens</i>	E
Ste. Genevieve	Indiana bat	<i>Myotis sodalis</i>	E
Ste. Genevieve	Mead's milkweed	<i>Asclepias meadii</i>	T
Ste. Genevieve	Monarch butterfly	<i>Danaus plexippus</i>	C
Ste. Genevieve	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Ste. Genevieve	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Ste. Genevieve	Rufa red knot	<i>Calidris canutus rufa</i>	T
Ste. Genevieve	Scaleshell mussel	<i>Leptodea leptodon</i>	E
Ste. Genevieve	St. Francis river crayfish	<i>Faxonius quadruncus</i>	T
Stoddard	Gray bat	<i>Myotis grisescens</i>	E
Stoddard	Indiana bat	<i>Myotis sodalis</i>	E
Stoddard	Monarch butterfly	<i>Danaus plexippus</i>	C
Stoddard	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Stoddard	Rabbitsfoot	<i>Quadrula cylindrica cylindrica</i>	T
Stoddard	Rufa red knot	<i>Calidris canutus rufa</i>	T
Stoddard	Snuffbox mussel	<i>Epioblasma triquetra</i>	E
Stone	Gray bat	<i>Myotis grisescens</i>	E
Stone	Indiana bat	<i>Myotis sodalis</i>	E
Stone	Monarch butterfly	<i>Danaus plexippus</i>	C
Stone	Neosho mucket	<i>Lampsilis rafinesqueana</i>	E
Stone	Northern long-eared bat	<i>Myotis septentrionalis</i>	E

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**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – MISSOURI**

County	Common name	Scientific name	Status
Stone	Ozark big-eared bat	<i>Corynorhinus townsendii ingens</i>	E
Stone	Ozark cavefish	<i>Amblyopsis rosae</i>	T
Stone	Snuffbox mussel	<i>Epioblasma triquetra</i>	E
Sullivan	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Sullivan	Gray bat	<i>Myotis grisescens</i>	E
Sullivan	Indiana bat	<i>Myotis sodalis</i>	E
Sullivan	Mead's milkweed	<i>Asclepias meadii</i>	T
Sullivan	Monarch butterfly	<i>Danaus plexippus</i>	C
Sullivan	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Taney	Gray bat	<i>Myotis grisescens</i>	E
Taney	Indiana bat	<i>Myotis sodalis</i>	E
Taney	Monarch butterfly	<i>Danaus plexippus</i>	C
Taney	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Taney	Tumbling Creek cavesnail	<i>Antrobia culveri</i>	E
Texas	Eastern hellbender	<i>Cryptobranchus alleganiensis</i>	E
Texas	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Texas	Gray bat	<i>Myotis grisescens</i>	E
Texas	Indiana bat	<i>Myotis sodalis</i>	E
Texas	Monarch butterfly	<i>Danaus plexippus</i>	C
Texas	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Texas	Ozark hellbender	<i>Cryptobranchus alleganiensis bishopi</i>	E
Texas	Scaleshell mussel	<i>Leptodea leptodon</i>	E
Texas	Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	E
Texas	Virginia sneezeweed	<i>Helenium virginicum</i>	T
Vernon	Gray bat	<i>Myotis grisescens</i>	E
Vernon	Indiana bat	<i>Myotis sodalis</i>	E
Vernon	Mead's milkweed	<i>Asclepias meadii</i>	T
Vernon	Monarch butterfly	<i>Danaus plexippus</i>	C
Vernon	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Warren	Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Warren	Gray bat	<i>Myotis grisescens</i>	E
Warren	Indiana bat	<i>Myotis sodalis</i>	E
Warren	Monarch butterfly	<i>Danaus plexippus</i>	C
Warren	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Warren	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Warren	Rufa red knot	<i>Calidris canutus rufa</i>	T

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**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – MISSOURI**

County	Common name	Scientific name	Status
Warren	Scaleshell mussel	Leptodea leptodon	E
Washington	Big creek crayfish	Faxonius peruncus	T
Washington	Eastern hellbender	Cryptobranchus alleganiensis	E
Washington	Eastern prairie fringed orchid	Platanthera leucophaea	T
Washington	Gray bat	Myotis grisescens	E
Washington	Hine's emerald dragonfly	Somatochlora hineana	E
Washington	Indiana bat	Myotis sodalis	E
Washington	Mead's milkweed	Asclepias meadii	T
Washington	Monarch butterfly	Danaus plexippus	C
Washington	Northern long-eared bat	Myotis septentrionalis	E
Washington	Scaleshell mussel	Leptodea leptodon	E
Washington	Snuffbox mussel	Epioblasma triquetra	E
Washington	Spectaclecase (mussel)	Cumberlandia monodonta	E
Washington	St. Francis river crayfish	Faxonius quadruncus	T
Wayne	Big creek crayfish	Faxonius peruncus	T
Wayne	Curtis pearlymussel	Epioblasma florentina curtisii	E
Wayne	Eastern prairie fringed orchid	Platanthera leucophaea	T
Wayne	Gray bat	Myotis grisescens	E
Wayne	Hine's emerald dragonfly	Somatochlora hineana	E
Wayne	Indiana bat	Myotis sodalis	E
Wayne	Mead's milkweed	Asclepias meadii	T
Wayne	Monarch butterfly	Danaus plexippus	C
Wayne	Northern long-eared bat	Myotis septentrionalis	E
Wayne	Pink mucket (pearlymussel)	Lampsilis abrupta	E
Wayne	Rabbitsfoot	Quadrula cylindrica cylindrica	T
Wayne	Snuffbox mussel	Epioblasma triquetra	E
Wayne	St. Francis river crayfish	Faxonius quadruncus	T
Wayne	Western fanshell	Cyprogenia aberti	T
Webster	Eastern hellbender	Cryptobranchus alleganiensis	E
Webster	Gray bat	Myotis grisescens	E
Webster	Indiana bat	Myotis sodalis	E
Webster	Monarch butterfly	Danaus plexippus	C
Webster	Niangua darter	Etheostoma nianguae	T
Webster	Northern long-eared bat	Myotis septentrionalis	E
Webster	Ozark cavefish	Amblyopsis rosae	T
Webster	Ozark hellbender	Cryptobranchus alleganiensis bishopi	E

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**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – MISSOURI**

County	Common name	Scientific name	Status
Webster	Scaleshell mussel	Leptodea leptodon	E
Webster	Virginia sneezeweed	Helenium virginicum	T
Worth	Indiana bat	Myotis sodalis	E
Worth	Mead's milkweed	Asclepias meadii	T
Worth	Monarch butterfly	Danaus plexippus	C
Worth	Northern long-eared bat	Myotis septentrionalis	E
Wright	Eastern hellbender	Cryptobranchus alleganiensis	E
Wright	Gray bat	Myotis grisescens	E
Wright	Indiana bat	Myotis sodalis	E
Wright	Monarch butterfly	Danaus plexippus	C
Wright	Northern long-eared bat	Myotis septentrionalis	E
Wright	Ozark cavefish	Amblyopsis rosae	T
Wright	Ozark hellbender	Cryptobranchus alleganiensis bishopi	E
Wright	Scaleshell mussel	Leptodea leptodon	E
Wright	Spectaclecase (mussel)	Cumberlandia monodonta	E
Wright	Virginia sneezeweed	Helenium virginicum	T

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**TABLE A.4.4**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – NEBRASKA**

County	Common name	Scientific Name	Group
Adams	Monarch butterfly	<i>Danaus plexippus</i>	C
Adams	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Adams	Piping plover	<i>Charadrius melodus</i>	T
Adams	Rufa red knot	<i>Calidris canutus rufa</i>	T
Adams	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Adams	Whooping crane	<i>Grus americana</i>	E
Antelope	American burying beetle	<i>Nicrophorus americanus</i>	T
Antelope	Eskimo curlew	<i>Numenius borealis</i>	E
Antelope	Monarch butterfly	<i>Danaus plexippus</i>	C
Antelope	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Antelope	Piping plover	<i>Charadrius melodus</i>	T
Antelope	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Antelope	Whooping crane	<i>Grus americana</i>	E
Arthur	Blowout penstemon	<i>Penstemon haydenii</i>	E
Arthur	Monarch butterfly	<i>Danaus plexippus</i>	C
Arthur	Piping plover	<i>Charadrius melodus</i>	T
Arthur	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Arthur	Whooping crane	<i>Grus americana</i>	E
Banner	Monarch butterfly	<i>Danaus plexippus</i>	C
Banner	Piping plover	<i>Charadrius melodus</i>	T
Banner	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Blaine	American burying beetle	<i>Nicrophorus americanus</i>	T
Blaine	Blowout penstemon	<i>Penstemon haydenii</i>	E
Blaine	Monarch butterfly	<i>Danaus plexippus</i>	C
Blaine	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Blaine	Piping plover	<i>Charadrius melodus</i>	T
Blaine	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Blaine	Whooping crane	<i>Grus americana</i>	E
Boone	American burying beetle	<i>Nicrophorus americanus</i>	T
Boone	Eskimo curlew	<i>Numenius borealis</i>	E
Boone	Monarch butterfly	<i>Danaus plexippus</i>	C
Boone	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Boone	Piping plover	<i>Charadrius melodus</i>	T
Boone	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Boone	Whooping crane	<i>Grus americana</i>	E
Box Butte	Blowout penstemon	<i>Penstemon haydenii</i>	E

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**TABLE A.4.4**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – NEBRASKA**

County	Common name	Scientific Name	Group
Box Butte	Monarch butterfly	<i>Danaus plexippus</i>	C
Box Butte	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Box Butte	Piping plover	<i>Charadrius melodus</i>	T
Box Butte	Rufa red knot	<i>Calidris canutus rufa</i>	T
Box Butte	Ute ladies'-tresses	<i>Spiranthes diluvialis</i>	T
Box Butte	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Boyd	American burying beetle	<i>Nicrophorus americanus</i>	T
Boyd	Monarch butterfly	<i>Danaus plexippus</i>	C
Boyd	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Boyd	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Boyd	Piping plover	<i>Charadrius melodus</i>	T
Boyd	Whooping crane	<i>Grus americana</i>	E
Brown	American burying beetle	<i>Nicrophorus americanus</i>	T
Brown	Blowout penstemon	<i>Penstemon haydenii</i>	E
Brown	Monarch butterfly	<i>Danaus plexippus</i>	C
Brown	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Brown	Piping plover	<i>Charadrius melodus</i>	T
Brown	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Brown	Whooping crane	<i>Grus americana</i>	E
Buffalo	Monarch butterfly	<i>Danaus plexippus</i>	C
Buffalo	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Buffalo	Piping plover	<i>Charadrius melodus</i>	T
Buffalo	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Buffalo	Whooping crane	<i>Grus americana</i>	E
Burt	Monarch butterfly	<i>Danaus plexippus</i>	C
Burt	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Burt	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Burt	Piping plover	<i>Charadrius melodus</i>	T
Butler	Eskimo curlew	<i>Numenius borealis</i>	E
Butler	Monarch butterfly	<i>Danaus plexippus</i>	C
Butler	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Butler	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Butler	Piping plover	<i>Charadrius melodus</i>	T
Butler	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Cass	Monarch butterfly	<i>Danaus plexippus</i>	C
Cass	Northern long-eared bat	<i>Myotis septentrionalis</i>	E

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County	Common name	Scientific Name	Group
Cass	Pallid sturgeon	Scaphirhynchus albus	E
Cass	Piping plover	Charadrius melodus	T
Cass	Western prairie fringed orchid	Platanthera praeclara	T
Cedar	Eskimo curlew	Numenius borealis	E
Cedar	Higgins eye (pearly mussel)	Lampsilis higginsii	E
Cedar	Monarch butterfly	Danaus plexippus	C
Cedar	Northern long-eared bat	Myotis septentrionalis	E
Cedar	Pallid sturgeon	Scaphirhynchus albus	E
Cedar	Piping plover	Charadrius melodus	T
Cedar	Scaleshell mussel	Leptodea leptodon	E
Cedar	Western prairie fringed orchid	Platanthera praeclara	T
Chase	Monarch butterfly	Danaus plexippus	C
Cherry	American burying beetle	Nicrophorus americanus	T
Cherry	Blowout penstemon	Penstemon haydenii	E
Cherry	Monarch butterfly	Danaus plexippus	C
Cherry	Northern long-eared bat	Myotis septentrionalis	E
Cherry	Piping plover	Charadrius melodus	T
Cherry	Topeka shiner	Notropis topeka	E
Cherry	Western prairie fringed orchid	Platanthera praeclara	T
Cherry	Whooping crane	Grus americana	E
Cheyenne	Long-eared myotis	Myotis evotis	SC
Cheyenne	Monarch butterfly	Danaus plexippus	C
Cheyenne	Piping plover	Charadrius melodus	T
Cheyenne	Western prairie fringed orchid	Platanthera praeclara	T
Clay	Eskimo curlew	Numenius borealis	E
Clay	Monarch butterfly	Danaus plexippus	C
Clay	Northern long-eared bat	Myotis septentrionalis	E
Clay	Whooping crane	Grus americana	E
Colfax	Eskimo curlew	Numenius borealis	E
Colfax	Monarch butterfly	Danaus plexippus	C
Colfax	Northern long-eared bat	Myotis septentrionalis	E
Colfax	Pallid sturgeon	Scaphirhynchus albus	E
Colfax	Piping plover	Charadrius melodus	T
Colfax	Western prairie fringed orchid	Platanthera praeclara	T
Cuming	Monarch butterfly	Danaus plexippus	C
Cuming	Northern long-eared bat	Myotis septentrionalis	E

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County	Common name	Scientific Name	Group
Cuming	Piping plover	Charadrius melodus	T
Custer	American burying beetle	Nicrophorus americanus	T
Custer	Blowout penstemon	Penstemon haydenii	E
Custer	Monarch butterfly	Danaus plexippus	C
Custer	Northern long-eared bat	Myotis septentrionalis	E
Custer	Piping plover	Charadrius melodus	T
Custer	Western prairie fringed orchid	Platanthera praeclara	T
Custer	Whooping crane	Grus americana	E
Dakota	Monarch butterfly	Danaus plexippus	C
Dakota	Northern long-eared bat	Myotis septentrionalis	E
Dakota	Pallid sturgeon	Scaphirhynchus albus	E
Dakota	Piping plover	Charadrius melodus	T
Dakota	Western prairie fringed orchid	Platanthera praeclara	T
Dawes	Monarch butterfly	Danaus plexippus	C
Dawes	Northern long-eared bat	Myotis septentrionalis	E
Dawes	Ute ladies'-tresses	Spiranthes diluvialis	T
Dawson	American burying beetle	Nicrophorus americanus	T
Dawson	Monarch butterfly	Danaus plexippus	C
Dawson	Northern long-eared bat	Myotis septentrionalis	E
Dawson	Piping plover	Charadrius melodus	T
Dawson	Western prairie fringed orchid	Platanthera praeclara	T
Dawson	Whooping crane	Grus americana	E
Deuel	Long-eared myotis	Myotis evotis	SC
Deuel	Monarch butterfly	Danaus plexippus	C
Deuel	Piping plover	Charadrius melodus	T
Deuel	Western prairie fringed orchid	Platanthera praeclara	T
Dixon	Monarch butterfly	Danaus plexippus	C
Dixon	Northern long-eared bat	Myotis septentrionalis	E
Dixon	Pallid sturgeon	Scaphirhynchus albus	E
Dixon	Piping plover	Charadrius melodus	T
Dixon	Scaleshell mussel	Leptodea leptodon	E
Dixon	Western prairie fringed orchid	Platanthera praeclara	T
Dodge	Monarch butterfly	Danaus plexippus	C
Dodge	Northern long-eared bat	Myotis septentrionalis	E
Dodge	Pallid sturgeon	Scaphirhynchus albus	E
Dodge	Piping plover	Charadrius melodus	T

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**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – NEBRASKA**

County	Common name	Scientific Name	Group
Dodge	Western prairie fringed orchid	Platanthera praeclara	T
Douglas	Monarch butterfly	Danaus plexippus	C
Douglas	Northern long-eared bat	Myotis septentrionalis	E
Douglas	Pallid sturgeon	Scaphirhynchus albus	E
Douglas	Piping plover	Charadrius melodus	T
Douglas	Rufa red knot	Calidris canutus rufa	T
Douglas	Western prairie fringed orchid	Platanthera praeclara	T
Dundy	Long-eared myotis	Myotis evotis	SC
Dundy	Monarch butterfly	Danaus plexippus	C
Dundy	Rufa red knot	Calidris canutus rufa	T
Fillmore	Eskimo curlew	Numenius borealis	E
Fillmore	Monarch butterfly	Danaus plexippus	C
Fillmore	Northern long-eared bat	Myotis septentrionalis	E
Fillmore	Whooping crane	Grus americana	E
Franklin	Monarch butterfly	Danaus plexippus	C
Franklin	Northern long-eared bat	Myotis septentrionalis	E
Franklin	Whooping crane	Grus americana	E
Frontier	American burying beetle	Nicrophorus americanus	T
Frontier	Monarch butterfly	Danaus plexippus	C
Frontier	Northern long-eared bat	Myotis septentrionalis	E
Frontier	Piping plover	Charadrius melodus	T
Frontier	Western prairie fringed orchid	Platanthera praeclara	T
Frontier	Whooping crane	Grus americana	E
Furnas	American burying beetle	Nicrophorus americanus	T
Furnas	Monarch butterfly	Danaus plexippus	C
Furnas	Northern long-eared bat	Myotis septentrionalis	E
Furnas	Whooping crane	Grus americana	E
Gage	Monarch butterfly	Danaus plexippus	C
Gage	Northern long-eared bat	Myotis septentrionalis	E
Gage	Topeka shiner	Notropis topeka	E
Gage	Western prairie fringed orchid	Platanthera praeclara	T
Garden	Blowout penstemon	Penstemon haydenii	E
Garden	Monarch butterfly	Danaus plexippus	C
Garden	Northern long-eared bat	Myotis septentrionalis	E
Garden	Piping plover	Charadrius melodus	T
Garden	Western prairie fringed orchid	Platanthera praeclara	T

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County	Common name	Scientific Name	Group
Garfield	American burying beetle	Nicrophorus americanus	T
Garfield	Blowout penstemon	Penstemon haydenii	E
Garfield	Monarch butterfly	Danaus plexippus	C
Garfield	Northern long-eared bat	Myotis septentrionalis	E
Garfield	Piping plover	Charadrius melodus	T
Garfield	Western prairie fringed orchid	Platanthera praeclara	T
Garfield	Whooping crane	Grus americana	E
Gosper	American burying beetle	Nicrophorus americanus	T
Gosper	Monarch butterfly	Danaus plexippus	C
Gosper	Northern long-eared bat	Myotis septentrionalis	E
Gosper	Piping plover	Charadrius melodus	T
Gosper	Western prairie fringed orchid	Platanthera praeclara	T
Gosper	Whooping crane	Grus americana	E
Grant	Blowout penstemon	Penstemon haydenii	E
Grant	Monarch butterfly	Danaus plexippus	C
Grant	Northern long-eared bat	Myotis septentrionalis	E
Grant	Piping plover	Charadrius melodus	T
Grant	Western prairie fringed orchid	Platanthera praeclara	T
Grant	Whooping crane	Grus americana	E
Greeley	American burying beetle	Nicrophorus americanus	T
Greeley	Monarch butterfly	Danaus plexippus	C
Greeley	Northern long-eared bat	Myotis septentrionalis	E
Greeley	Piping plover	Charadrius melodus	T
Greeley	Western prairie fringed orchid	Platanthera praeclara	T
Greeley	Whooping crane	Grus americana	E
Hall	Monarch butterfly	Danaus plexippus	C
Hall	Northern long-eared bat	Myotis septentrionalis	E
Hall	Piping plover	Charadrius melodus	T
Hall	Western prairie fringed orchid	Platanthera praeclara	T
Hall	Whooping crane	Grus americana	E
Hamilton	Eskimo curlew	Numenius borealis	E
Hamilton	Monarch butterfly	Danaus plexippus	C
Hamilton	Northern long-eared bat	Myotis septentrionalis	E
Hamilton	Piping plover	Charadrius melodus	T
Hamilton	Rufa red knot	Calidris canutus rufa	T
Hamilton	Western prairie fringed orchid	Platanthera praeclara	T

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County	Common name	Scientific Name	Group
Hamilton	Whooping crane	<i>Grus americana</i>	E
Harlan	Monarch butterfly	<i>Danaus plexippus</i>	C
Harlan	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Harlan	Whooping crane	<i>Grus americana</i>	E
Hayes	American burying beetle	<i>Nicrophorus americanus</i>	T
Hayes	Monarch butterfly	<i>Danaus plexippus</i>	C
Hayes	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Hayes	Whooping crane	<i>Grus americana</i>	E
Hitchcock	Monarch butterfly	<i>Danaus plexippus</i>	C
Hitchcock	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Hitchcock	Whooping crane	<i>Grus americana</i>	E
Holt	American burying beetle	<i>Nicrophorus americanus</i>	T
Holt	Monarch butterfly	<i>Danaus plexippus</i>	C
Holt	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Holt	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Holt	Piping plover	<i>Charadrius melodus</i>	T
Holt	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Holt	Whooping crane	<i>Grus americana</i>	E
Hooker	American burying beetle	<i>Nicrophorus americanus</i>	T
Hooker	Blowout penstemon	<i>Penstemon haydenii</i>	E
Hooker	Monarch butterfly	<i>Danaus plexippus</i>	C
Hooker	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Hooker	Piping plover	<i>Charadrius melodus</i>	T
Hooker	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Hooker	Whooping crane	<i>Grus americana</i>	E
Howard	American burying beetle	<i>Nicrophorus americanus</i>	T
Howard	Monarch butterfly	<i>Danaus plexippus</i>	C
Howard	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Howard	Piping plover	<i>Charadrius melodus</i>	T
Howard	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Howard	Whooping crane	<i>Grus americana</i>	E
Jefferson	Eskimo curlew	<i>Numenius borealis</i>	E
Jefferson	Monarch butterfly	<i>Danaus plexippus</i>	C
Jefferson	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Jefferson	Topeka shiner	<i>Notropis topeka</i>	E
Johnson	Monarch butterfly	<i>Danaus plexippus</i>	C

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County	Common name	Scientific Name	Group
Johnson	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Johnson	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Kearney	Monarch butterfly	<i>Danaus plexippus</i>	C
Kearney	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Kearney	Piping plover	<i>Charadrius melodus</i>	T
Kearney	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Kearney	Whooping crane	<i>Grus americana</i>	E
Keith	Blowout penstemon	<i>Penstemon haydenii</i>	E
Keith	Monarch butterfly	<i>Danaus plexippus</i>	C
Keith	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Keith	Piping plover	<i>Charadrius melodus</i>	T
Keith	Rufa red knot	<i>Calidris canutus rufa</i>	T
Keith	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Keith	Whooping crane	<i>Grus americana</i>	E
Keya Paha	American burying beetle	<i>Nicrophorus americanus</i>	T
Keya Paha	Monarch butterfly	<i>Danaus plexippus</i>	C
Keya Paha	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Keya Paha	Piping plover	<i>Charadrius melodus</i>	T
Keya Paha	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Keya Paha	Whooping crane	<i>Grus americana</i>	E
Kimball	Long-eared myotis	<i>Myotis evotis</i>	SC
Kimball	Monarch butterfly	<i>Danaus plexippus</i>	C
Kimball	Piping plover	<i>Charadrius melodus</i>	T
Kimball	Ute ladies'-tresses	<i>Spiranthes diluvialis</i>	T
Kimball	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Knox	American burying beetle	<i>Nicrophorus americanus</i>	T
Knox	Eskimo curlew	<i>Numenius borealis</i>	E
Knox	Higgins eye (pearlymussel)	<i>Lampsilis higginsii</i>	E
Knox	Monarch butterfly	<i>Danaus plexippus</i>	C
Knox	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Knox	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Knox	Piping plover	<i>Charadrius melodus</i>	T
Knox	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Knox	Whooping crane	<i>Grus americana</i>	E
Lancaster	Monarch butterfly	<i>Danaus plexippus</i>	C
Lancaster	Northern long-eared bat	<i>Myotis septentrionalis</i>	E

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County	Common name	Scientific Name	Group
Lancaster	Piping plover	<i>Charadrius melodus</i>	T
Lancaster	Rufa red knot	<i>Calidris canutus rufa</i>	T
Lancaster	Salt Creek Tiger beetle	<i>Cicindela nevadica lincolniana</i>	E
Lancaster	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Lincoln	American burying beetle	<i>Nicrophorus americanus</i>	T
Lincoln	Blowout penstemon	<i>Penstemon haydenii</i>	E
Lincoln	Monarch butterfly	<i>Danaus plexippus</i>	C
Lincoln	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Lincoln	Piping plover	<i>Charadrius melodus</i>	T
Lincoln	Rufa red knot	<i>Calidris canutus rufa</i>	T
Lincoln	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Lincoln	Whooping crane	<i>Grus americana</i>	E
Logan	American burying beetle	<i>Nicrophorus americanus</i>	T
Logan	Blowout penstemon	<i>Penstemon haydenii</i>	E
Logan	Monarch butterfly	<i>Danaus plexippus</i>	C
Logan	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Logan	Piping plover	<i>Charadrius melodus</i>	T
Logan	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Logan	Whooping crane	<i>Grus americana</i>	E
Loup	American burying beetle	<i>Nicrophorus americanus</i>	T
Loup	Blowout penstemon	<i>Penstemon haydenii</i>	E
Loup	Monarch butterfly	<i>Danaus plexippus</i>	C
Loup	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Loup	Piping plover	<i>Charadrius melodus</i>	T
Loup	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Loup	Whooping crane	<i>Grus americana</i>	E
Madison	Eskimo curlew	<i>Numenius borealis</i>	E
Madison	Monarch butterfly	<i>Danaus plexippus</i>	C
Madison	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Madison	Piping plover	<i>Charadrius melodus</i>	T
Madison	Topeka shiner	<i>Notropis topeka</i>	E
Madison	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Madison	Whooping crane	<i>Grus americana</i>	E
Mcpherson	American burying beetle	<i>Nicrophorus americanus</i>	T
Mcpherson	Blowout penstemon	<i>Penstemon haydenii</i>	E
Mcpherson	Monarch butterfly	<i>Danaus plexippus</i>	C

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**TABLE A.4.4**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – NEBRASKA**

County	Common name	Scientific Name	Group
Mcpherson	Northern long-eared bat	Myotis septentrionalis	E
Mcpherson	Piping plover	Charadrius melodus	T
Mcpherson	Rufa red knot	Calidris canutus rufa	T
Mcpherson	Western prairie fringed orchid	Platanthera praeclara	T
Mcpherson	Whooping crane	Grus americana	E
Merrick	American burying beetle	Nicrophorus americanus	T
Merrick	Eskimo curlew	Numenius borealis	E
Merrick	Monarch butterfly	Danaus plexippus	C
Merrick	Northern long-eared bat	Myotis septentrionalis	E
Merrick	Piping plover	Charadrius melodus	T
Merrick	Western prairie fringed orchid	Platanthera praeclara	T
Merrick	Whooping crane	Grus americana	E
Morrill	Blowout penstemon	Penstemon haydenii	E
Morrill	Monarch butterfly	Danaus plexippus	C
Morrill	Northern long-eared bat	Myotis septentrionalis	E
Morrill	Piping plover	Charadrius melodus	T
Morrill	Western prairie fringed orchid	Platanthera praeclara	T
Nance	American burying beetle	Nicrophorus americanus	T
Nance	Eskimo curlew	Numenius borealis	E
Nance	Monarch butterfly	Danaus plexippus	C
Nance	Northern long-eared bat	Myotis septentrionalis	E
Nance	Piping plover	Charadrius melodus	T
Nance	Western prairie fringed orchid	Platanthera praeclara	T
Nance	Whooping crane	Grus americana	E
Nemaha	Monarch butterfly	Danaus plexippus	C
Nemaha	Northern long-eared bat	Myotis septentrionalis	E
Nemaha	Pallid sturgeon	Scaphirhynchus albus	E
Nemaha	Western prairie fringed orchid	Platanthera praeclara	T
Nuckolls	Eskimo curlew	Numenius borealis	E
Nuckolls	Monarch butterfly	Danaus plexippus	C
Nuckolls	Northern long-eared bat	Myotis septentrionalis	E
Nuckolls	Whooping crane	Grus americana	E
Otoe	Monarch butterfly	Danaus plexippus	C
Otoe	Northern long-eared bat	Myotis septentrionalis	E
Otoe	Pallid sturgeon	Scaphirhynchus albus	E
Otoe	Western prairie fringed orchid	Platanthera praeclara	T

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**TABLE A.4.4**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – NEBRASKA**

County	Common name	Scientific Name	Group
Pawnee	Monarch butterfly	<i>Danaus plexippus</i>	C
Pawnee	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Pawnee	Rufa red knot	<i>Calidris canutus rufa</i>	T
Pawnee	Topeka shiner	<i>Notropis topeka</i>	E
Pawnee	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Perkins	Monarch butterfly	<i>Danaus plexippus</i>	C
Perkins	Piping plover	<i>Charadrius melodus</i>	T
Perkins	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Perkins	Whooping crane	<i>Grus americana</i>	E
Phelps	American burying beetle	<i>Nicrophorus americanus</i>	T
Phelps	Monarch butterfly	<i>Danaus plexippus</i>	C
Phelps	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Phelps	Piping plover	<i>Charadrius melodus</i>	T
Phelps	Rufa red knot	<i>Calidris canutus rufa</i>	T
Phelps	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Phelps	Whooping crane	<i>Grus americana</i>	E
Pierce	Eskimo curlew	<i>Numenius borealis</i>	E
Pierce	Monarch butterfly	<i>Danaus plexippus</i>	C
Pierce	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Pierce	Piping plover	<i>Charadrius melodus</i>	T
Pierce	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Pierce	Whooping crane	<i>Grus americana</i>	E
Platte	Eskimo curlew	<i>Numenius borealis</i>	E
Platte	Monarch butterfly	<i>Danaus plexippus</i>	C
Platte	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Platte	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Platte	Piping plover	<i>Charadrius melodus</i>	T
Platte	Rufa red knot	<i>Calidris canutus rufa</i>	T
Platte	Topeka shiner	<i>Notropis topeka</i>	E
Platte	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Platte	Whooping crane	<i>Grus americana</i>	E
Polk	Eskimo curlew	<i>Numenius borealis</i>	E
Polk	Monarch butterfly	<i>Danaus plexippus</i>	C
Polk	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Polk	Piping plover	<i>Charadrius melodus</i>	T
Polk	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T

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**TABLE A.4.4**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – NEBRASKA**

County	Common name	Scientific Name	Group
Polk	Whooping crane	<i>Grus americana</i>	E
Red Willow	American burying beetle	<i>Nicrophorus americanus</i>	T
Red Willow	Monarch butterfly	<i>Danaus plexippus</i>	C
Red Willow	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Red Willow	Whooping crane	<i>Grus americana</i>	E
Richardson	Monarch butterfly	<i>Danaus plexippus</i>	C
Richardson	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Richardson	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Richardson	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Rock	American burying beetle	<i>Nicrophorus americanus</i>	T
Rock	Blowout penstemon	<i>Penstemon haydenii</i>	E
Rock	Monarch butterfly	<i>Danaus plexippus</i>	C
Rock	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Rock	Piping plover	<i>Charadrius melodus</i>	T
Rock	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Rock	Whooping crane	<i>Grus americana</i>	E
Saline	Eskimo curlew	<i>Numenius borealis</i>	E
Saline	Monarch butterfly	<i>Danaus plexippus</i>	C
Saline	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Saline	Piping plover	<i>Charadrius melodus</i>	T
Saline	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Sarpy	Monarch butterfly	<i>Danaus plexippus</i>	C
Sarpy	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Sarpy	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Sarpy	Piping plover	<i>Charadrius melodus</i>	T
Sarpy	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Saunders	Monarch butterfly	<i>Danaus plexippus</i>	C
Saunders	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Saunders	Pallid sturgeon	<i>Scaphirhynchus albus</i>	E
Saunders	Piping plover	<i>Charadrius melodus</i>	T
Saunders	Salt Creek Tiger beetle	<i>Cicindela nevadica lincolniana</i>	E
Saunders	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Scotts Bluff	Blowout penstemon	<i>Penstemon haydenii</i>	E
Scotts Bluff	Monarch butterfly	<i>Danaus plexippus</i>	C
Scotts Bluff	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Scotts Bluff	Piping plover	<i>Charadrius melodus</i>	T

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**TABLE A.4.4**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – NEBRASKA**

County	Common name	Scientific Name	Group
Scotts Bluff	Rufa red knot	<i>Calidris canutus rufa</i>	T
Scotts Bluff	Ute ladies'-tresses	<i>Spiranthes diluvialis</i>	T
Scotts Bluff	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Seward	Eskimo curlew	<i>Numenius borealis</i>	E
Seward	Monarch butterfly	<i>Danaus plexippus</i>	C
Seward	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Seward	Piping plover	<i>Charadrius melodus</i>	T
Seward	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Sheridan	Blowout penstemon	<i>Penstemon haydenii</i>	E
Sheridan	Monarch butterfly	<i>Danaus plexippus</i>	C
Sheridan	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Sheridan	Piping plover	<i>Charadrius melodus</i>	T
Sheridan	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Sherman	American burying beetle	<i>Nicrophorus americanus</i>	T
Sherman	Monarch butterfly	<i>Danaus plexippus</i>	C
Sherman	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Sherman	Piping plover	<i>Charadrius melodus</i>	T
Sherman	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Sherman	Whooping crane	<i>Grus americana</i>	E
Sioux	Blowout penstemon	<i>Penstemon haydenii</i>	E
Sioux	Monarch butterfly	<i>Danaus plexippus</i>	C
Sioux	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Sioux	Piping plover	<i>Charadrius melodus</i>	T
Sioux	Ute ladies'-tresses	<i>Spiranthes diluvialis</i>	T
Sioux	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Stanton	Eskimo curlew	<i>Numenius borealis</i>	E
Stanton	Monarch butterfly	<i>Danaus plexippus</i>	C
Stanton	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Stanton	Piping plover	<i>Charadrius melodus</i>	T
Stanton	Topeka shiner	<i>Notropis topeka</i>	E
Stanton	Western prairie fringed orchid	<i>Platanthera praeclara</i>	T
Thayer	Eskimo curlew	<i>Numenius borealis</i>	E
Thayer	Monarch butterfly	<i>Danaus plexippus</i>	C
Thayer	Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Thayer	Whooping crane	<i>Grus americana</i>	E
Thomas	American burying beetle	<i>Nicrophorus americanus</i>	T

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**TABLE A.4.4**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – NEBRASKA**

County	Common name	Scientific Name	Group
Thomas	Blowout penstemon	Penstemon haydenii	E
Thomas	Monarch butterfly	Danaus plexippus	C
Thomas	Northern long-eared bat	Myotis septentrionalis	E
Thomas	Piping plover	Charadrius melodus	T
Thomas	Western prairie fringed orchid	Platanthera praeclara	T
Thomas	Whooping crane	Grus americana	E
Thurston	Monarch butterfly	Danaus plexippus	C
Thurston	Northern long-eared bat	Myotis septentrionalis	E
Thurston	Pallid sturgeon	Scaphirhynchus albus	E
Thurston	Piping plover	Charadrius melodus	T
Valley	American burying beetle	Nicrophorus americanus	T
Valley	Monarch butterfly	Danaus plexippus	C
Valley	Northern long-eared bat	Myotis septentrionalis	E
Valley	Piping plover	Charadrius melodus	T
Valley	Western prairie fringed orchid	Platanthera praeclara	T
Valley	Whooping crane	Grus americana	E
Washington	Monarch butterfly	Danaus plexippus	C
Washington	Northern long-eared bat	Myotis septentrionalis	E
Washington	Pallid sturgeon	Scaphirhynchus albus	E
Washington	Piping plover	Charadrius melodus	T
Wayne	Eskimo curlew	Numenius borealis	E
Wayne	Monarch butterfly	Danaus plexippus	C
Wayne	Northern long-eared bat	Myotis septentrionalis	E
Wayne	Piping plover	Charadrius melodus	T
Webster	Monarch butterfly	Danaus plexippus	C
Webster	Northern long-eared bat	Myotis septentrionalis	E
Webster	Whooping crane	Grus americana	E
Wheeler	American burying beetle	Nicrophorus americanus	T
Wheeler	Monarch butterfly	Danaus plexippus	C
Wheeler	Northern long-eared bat	Myotis septentrionalis	E
Wheeler	Piping plover	Charadrius melodus	T
Wheeler	Western prairie fringed orchid	Platanthera praeclara	T
Wheeler	Whooping crane	Grus americana	E
York	Eskimo curlew	Numenius borealis	E
York	Monarch butterfly	Danaus plexippus	C
York	Northern long-eared bat	Myotis septentrionalis	E

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**TABLE A.4.4**

**FEDERALLY-LISTED ENDANGERED OR THREATENED SPECIES – NEBRASKA**

County	Common name	Scientific Name	Group
York	Rufa red knot	Calidris canutus rufa	T
York	Whooping crane	Grus americana	E

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## **APPENDIX A.5**

# **METROPOLITAN STATISTICAL AREAS**

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## METROPOLITAN STATISTICAL AREAS

### APPENDIX A.5 TO REGION 7 INTEGRATED CONTINGENCY PLAN

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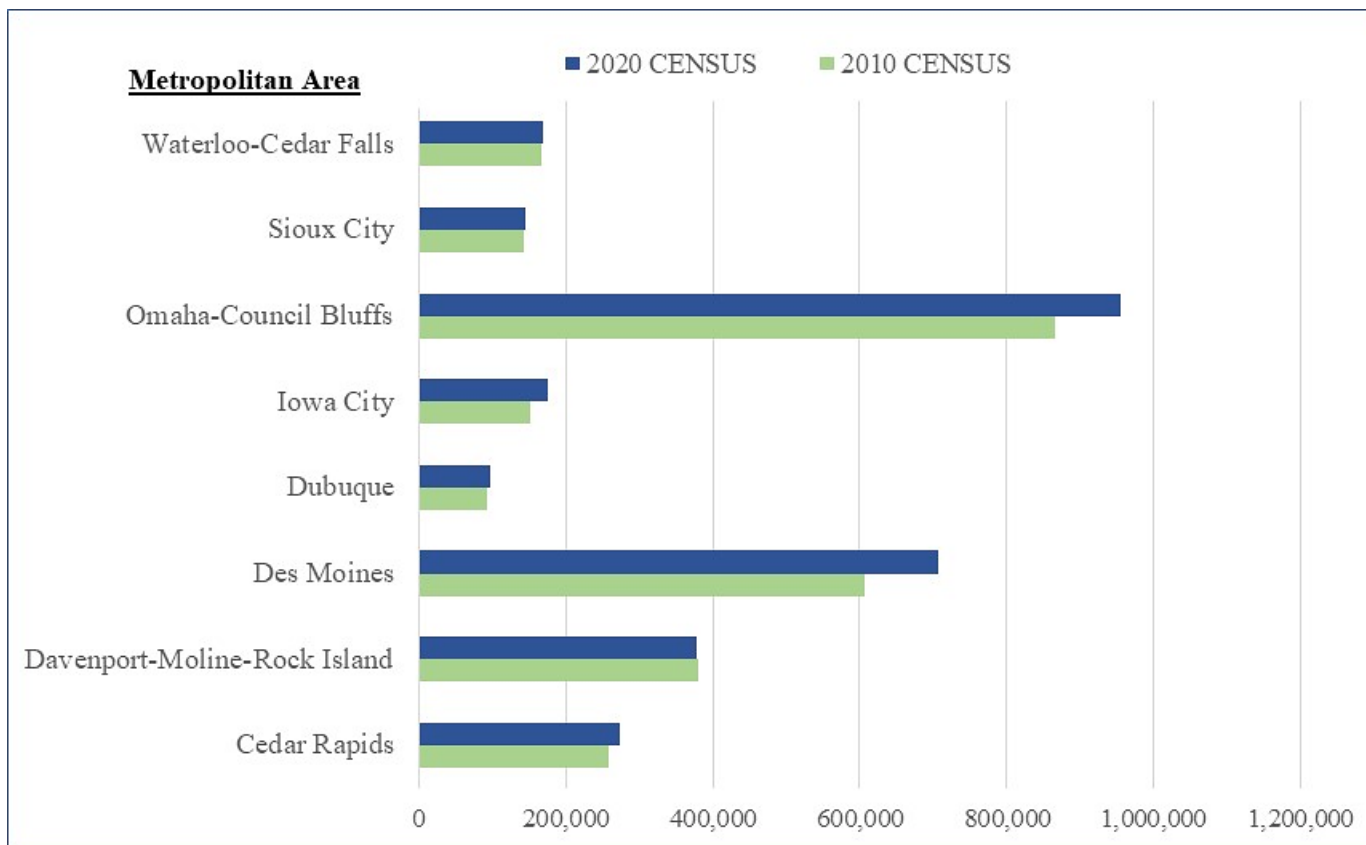
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**TABLE A.5.1**

**METROPOLITAN AREAS WITH POPULATION GREATER THAN 75,000**

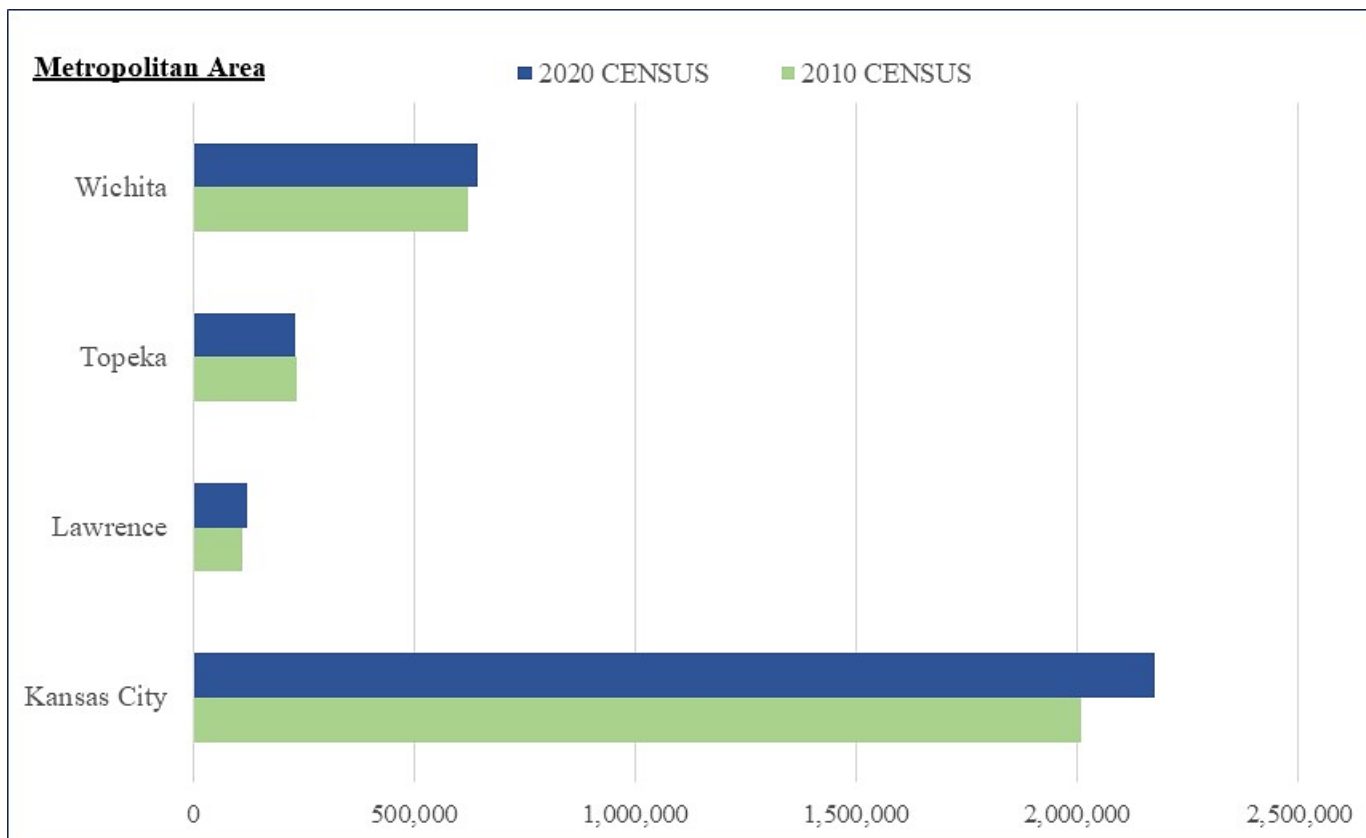
STATE	AREA	2010 CENSUS	2020 CENSUS	PERCENT CHANGE
Iowa	Cedar Rapids	257,940	273,885	5.82
Iowa	Davenport-Moline- Rock Island	379,690	377,759	-0.51
Iowa	Des Moines	606,475	707,915	14.33
Iowa	Dubuque	93,653	97,590	4.03
Iowa	Iowa City	152,586	175,732	13.17
Iowa	Omaha-Council Bluffs	865,350	954,270	9.32
Iowa	Sioux City	143,577	144,996	0.98
Iowa	Waterloo-Cedar Falls	167,819	168,314	0.29
Kansas	Kansas City	2,009,342	2,173,212	7.54
Kansas	Lawrence	110,826	122,530	9.55
Kansas	Topeka	233,870	230,878	-1.30
Kansas	Wichita	623,061	643,768	3.22
Missouri	Columbia	190,387	210,094	9.38
Missouri	Jefferson City	149,807	150,198	0.26
Missouri	Joplin	175,518	180,099	2.54
Missouri	Kansas City	2,009,342	2,173,212	7.54
Missouri	St. Joseph	127,329	122,556	-3.89
Missouri	St. Louis	2,787,701	2,805,473	0.63
Missouri	Springfield	436,712	475,220	8.10
Nebraska	Lincoln	302,157	337,836	10.56
Nebraska	Omaha-Council Bluffs	865,350	954,270	9.32
Nebraska	Sioux City	143,577	144,996	0.98

**FIGURE A.5.1**  
**POPULATION CHANGE – IOWA**

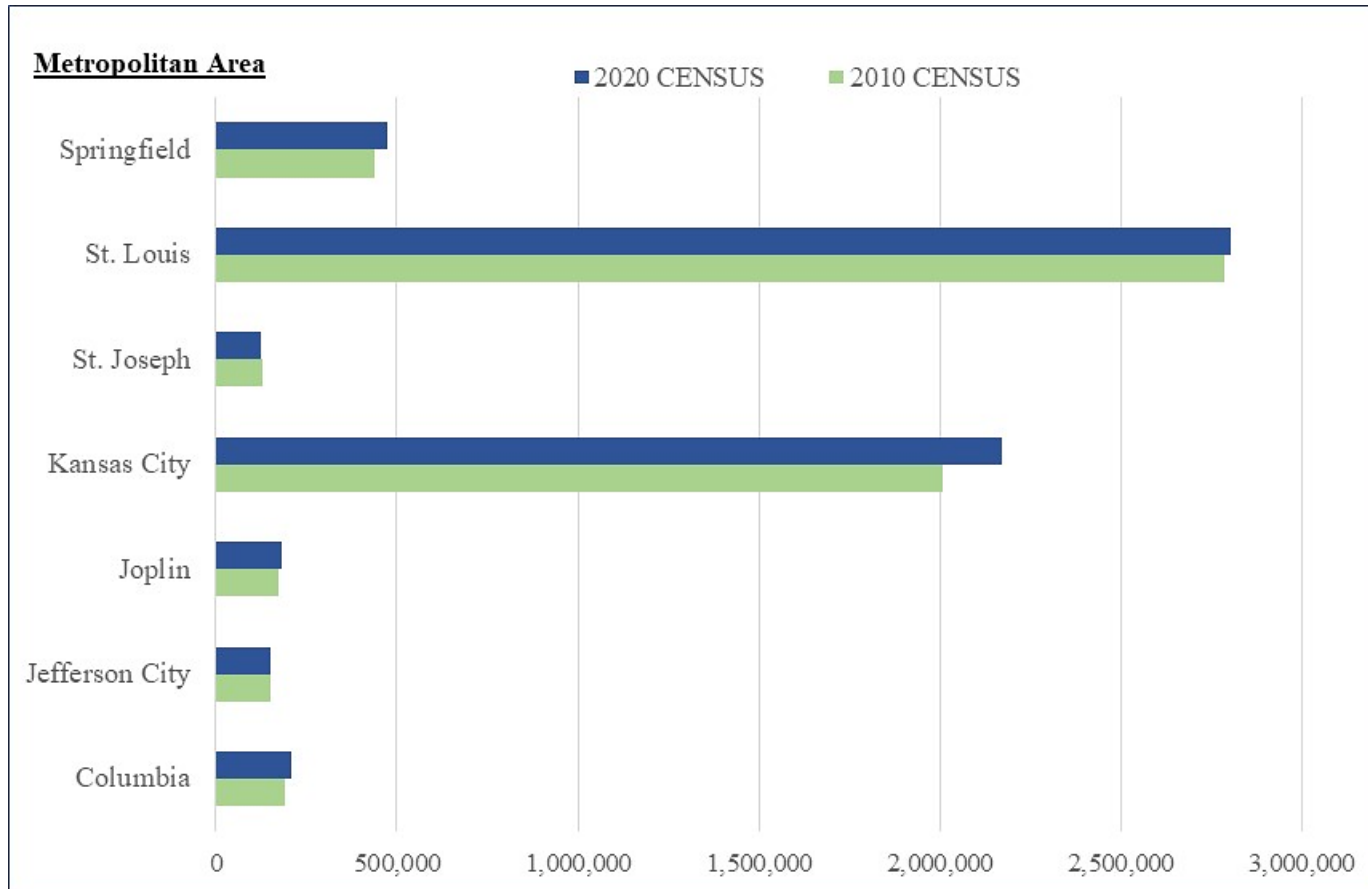




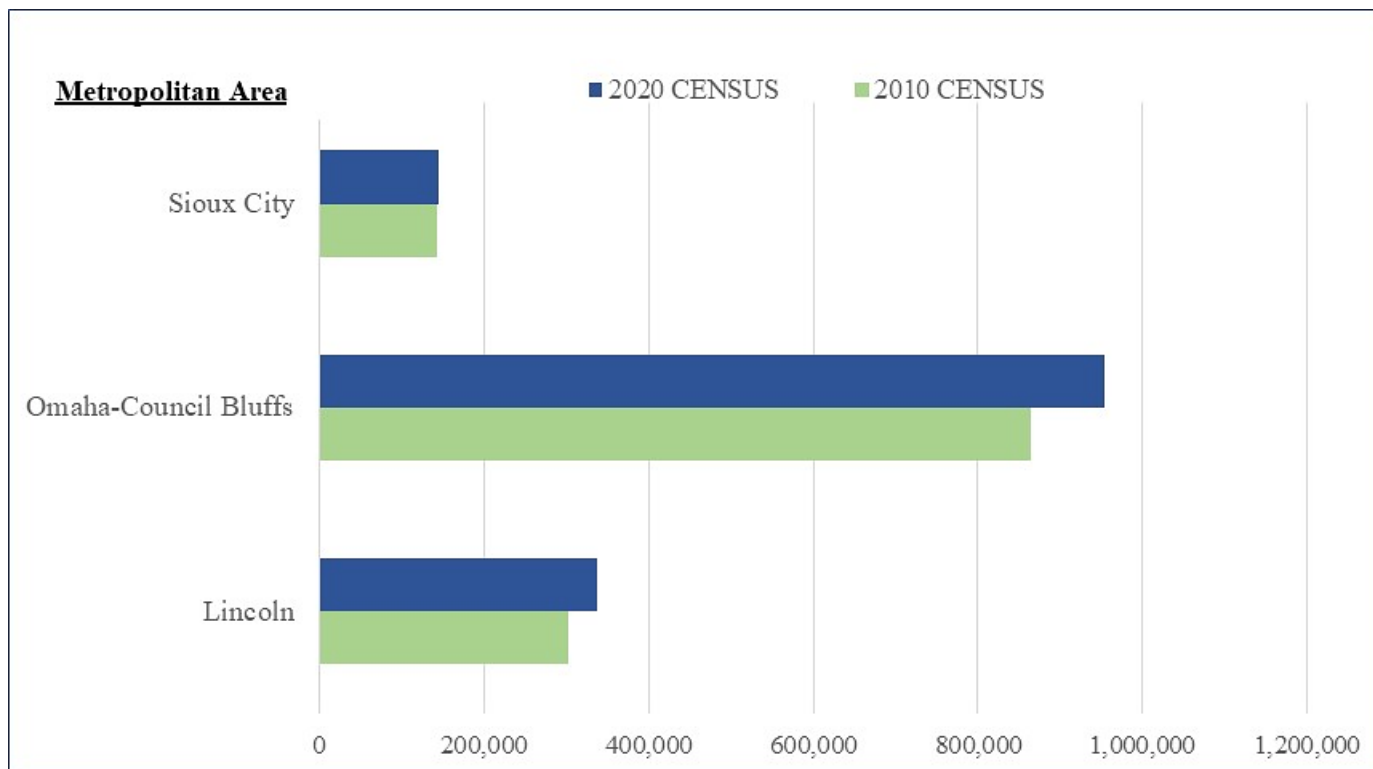
**FIGURE A.5.2**  
**POPULATION CHANGE - KANSAS**



**FIGURE A.5.3**  
**POPULATION CHANGE – MISSOURI**



**FIGURE A.5.4**  
**POPULATION CHANGE – NEBRASKA**



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## **APPENDIX A.6**

# **EPA WETLAND REGULATORY AUTHORITY**

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# Wetland Regulatory Authority

## Regulatory Requirements

*Section 404 of the Clean Water Act (CWA) establishes a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Activities in waters of the United States regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports) and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from Section 404 regulation (e.g. certain farming and forestry activities).*

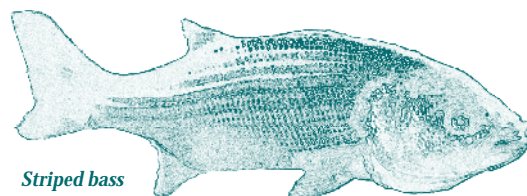


Wetlands subject to Clean Water Act Section 404 are defined as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

**T**he basic premise of the program is that no discharge of dredged or fill material may be permitted if: (1) a practicable alternative exists that is less damaging to the aquatic environment or (2) the nation's waters would be significantly degraded. In other words, when you apply for a permit, you must show that you have, to the extent practicable:

- Taken steps to avoid wetland impacts;
- Minimized potential impacts on wetlands; and
- Provided compensation for any remaining unavoidable impacts.

Proposed activities are regulated through a permit review process. An *individual permit* is required for potentially significant impacts. Individual permits are reviewed by the U.S. Army Corps of Engineers, which evaluates applications under a public interest review, as well as the environmental criteria set forth in the CWA Section 404(b)(1) Guidelines. However, for most discharges that will have only minimal adverse effects, a *general permit* may be suitable. General permits are issued on a nationwide, regional, or State basis for particular categories of activities. The general permit process eliminates individual review and allows certain activities to proceed with little or no delay, provided that the general or specific conditions for the general permit are met. For example,



Striped bass

minor road activities, utility line backfill, and bedding are activities that can be considered for a general permit. States also have a role in Section 404 decisions, through State program general permits, water quality certification, or program assumption.

## Agency Roles and Responsibilities

The roles and responsibilities of the Federal resource agencies differ in scope.

### **U.S. Army Corps of Engineers:**

- Administers day-to-day program, including individual and general permit decisions;
- Conducts or verifies jurisdictional determinations;
- Develops policy and guidance; and
- Enforces Section 404 provisions.

### **U.S. Environmental Protection Agency:**

- Develops and interprets policy, guidance and environmental criteria used in evaluating permit applications;
- Determines scope of geographic jurisdiction and applicability of exemptions;
- Approves and oversees State and Tribal assumption;
- Reviews and comments on individual permit applications;
- Has authority to prohibit, deny, or restrict the use of any defined area as a disposal site (Section 404(c));
- Can elevate specific cases (Section 404(q));
- Enforces Section 404 provisions.

## **U.S. Fish and Wildlife Service and National Marine Fisheries Service:**

- Evaluates impacts on fish and wildlife of all new Federal projects and Federally permitted projects, including projects subject to the requirements of Section 404 (pursuant to the Fish and Wildlife Coordination Act); and
- Elevates specific cases or policy issues pursuant to Section 404(q).

## **Manual for Identifying Wetlands**

The U.S. EPA and U.S. Army Corps of Engineers use the 1987 *Corps of Engineers Wetlands Delineation Manual* to identify wetlands for the CWA Section 404 permit program. The 1987 manual organizes the environmental characteristics of a potential wetland into three categories: soils, vegetation, and hydrology. The manual contains criteria for each category. Using

this approach, an area that meets all three criteria is considered a wetland.

## **Wetlands on Agricultural Lands**

Farmers who own or manage wetlands are directly affected by two important Federal programs—Section 404 of the CWA and the Swampbuster provision of the Food Security Act. The Swampbuster provision withholds certain Federal farm program benefits from farmers who convert or modify wetlands. The U.S. EPA, U.S. Army Corps of Engineers, U.S. Department of Agriculture, and U.S. Fish and Wildlife Service have established procedures to ensure consistency between the programs. Many normal farming practices are exempt from Section 404.



*Water lilies*

## **The Wetland Fact Sheet Series**

EPA843-F-04-001  
Office of Water

Wetlands Overview  
Types of Wetlands  
Threats to Wetlands  
Wetland Restoration  
Funding Wetland Projects

Functions and Values of Wetlands  
Teaching About Wetlands  
Wetland Regulatory Authority  
Wetlands Compensatory Mitigation  
Benefits of Wetland Monitoring

**For more information, call EPA's Wetlands Helpline at 1-800-832-7828**

# **Wetland Resources**

## **On the Internet**

EPA's Wetlands Website ..... [www.epa.gov/owow/wetlands/regs/](http://www.epa.gov/owow/wetlands/regs/)  
Section 404 of the Clean Water Act ..... [www.epa.gov/owow/wetlands/laws/](http://www.epa.gov/owow/wetlands/laws/)  
Wetland Delineation Manual ..... [www.wes.army.mil/el/wetlands/wlpubs.html](http://www.wes.army.mil/el/wetlands/wlpubs.html)  
U.S. Army Corps of Engineers Regulatory Program..... [www.usace.army.mil/inet/functions/cw/cecwo/reg/](http://www.usace.army.mil/inet/functions/cw/cecwo/reg/)  
U.S. Army Corps of Engineers' Waterways  
Experiment Station Environmental Laboratory ..... [www.wes.army.mil/el/wetlands/wetlands.html](http://www.wes.army.mil/el/wetlands/wetlands.html)  
Environmental Law Institute ..... [www.eli.org](http://www.eli.org)

## **In Print**

*America's Wetlands: Our Vital Link Between Land and Water.* For a copy, order from EPA's publications web site at <http://yosemite.epa.gov/water/owrcatalog.nsf> or call the EPA Wetlands Helpline at 1-800-832-7828.

*Wetlands Deskbook*, 2nd Edition, Margaret N. Strand. Available from the Environmental Law Institute. Call 1-800-433-5120; fax your request to (202) 939-3868; or e-mail to [orders@eli.org](mailto:orders@eli.org).

*Our National Wetland Heritage: A Protection Guide*, 2nd Edition, Jon A. Kusler, Ph.D., Executive Director, Association of State Wetland Managers. Available from the Environmental Law Institute. Call 1-800-433-5120; fax your request to (202) 939-3868; or e-mail to [orders@eli.org](mailto:orders@eli.org).



## **APPENDIX A.7**

# **THREATENED AND ENDANGERED SPECIES AND SENSITIVE AREAS GEOSPATIAL INFORMATION GUIDE**

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**THREATENED AND ENDANGERED SPECIES AND SENSITIVE AREAS  
GEOSPATIAL INFORMATION GUIDE**

**APPENDIX A.7 TO REGION 7 INTEGRATED CONTINGENCY PLAN**

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## **1.0 PURPOSE**

The purpose of this document is to provide both the Federal On-Scene Coordinator (FOSC) in the U.S. Environmental Protection Agency (EPA) Region 7 and owners/operators of facilities conducting facility response planning (FRP) the necessary information to locate and analyze geo information pertaining to the Federal Oil Pollution Prevention regulation (Title 40 *Code of Federal Regulations* [40 CFR] Part 112) and supporting guidance documentation. The information outlined below are primarily for use with geographic information systems (GIS) or mapping systems and are designed to help locate critical features in relation to a facility. The information may include, but is not limited to, critical habitat, threatened and endangered species (for example, terrestrial or aquatic species), public use areas, cultural and historic areas, managed and protected areas, wetlands, resources extraction areas, and water supplies.

## **2.0 SPECIAL CONSIDERATIONS**

Information outlined below are not derived from EPA-owned databases and therefore the EPA does not guarantee the accuracy, completeness, or timeliness of the information shown, and shall not be liable for any injury or loss resulting from the reliance upon the information. The information contained within is intended to provide guidance only; please refer to the Oil Pollution Prevention regulation found at 40 CFR Part 112 for additional information (see <http://www.gpo.gov>).

Also, please note many of the resources listed below require GIS software to fully view or manipulate the information contained within.

## **3.0 GIS AND MAPPING DATA SOURCES**

There are numerous resources publicly available on-line to view and download GIS and mapping information for the various features of concern when reviewing FRP guidance. Below is a list of resources organized by federal, state, and local, along with links to websites where data can be viewed and/or downloaded for use in GIS. This information, coupled with additional information gleaned from various guidance documents, will provide assistance in determining if a facility falls under FRP regulation.

## National GIS/Mapping Data Sources:

- U.S. Fish & Wildlife Service (USFWS), Information for Planning and Consultation (IPaC) - <https://ipac.ecosphere.fws.gov/>
- U.S. Geological Survey (USGS) Maps/GIS - <https://water.usgs.gov/maps.html>
- GIS Inventory - <https://www.nsgic.org/gis-inventory>
- USFWS Migratory Bird Data Center - <https://migbirdapps.fws.gov/>
- USGS Gap Analysis Project - <https://gapanalysis.usgs.gov/species/viewer/>
- USGS National Water Information System - <https://waterdata.usgs.gov/nwis/rt>
- USGS North American Breeding Bird Survey - <https://www.pwrc.usgs.gov/bbs/>
- USGS Nonindigenous Aquatic Species - <https://nas.er.usgs.gov/queries/statesearch.aspx>

## State GIS/Mapping Data Sources:

### Iowa

- State of Iowa Open Geospatial Data - <https://geodata.iowa.gov/>
- Iowa Department of Natural Resources, Mapping & GIS - <https://www.iowadnr.gov/conservation/mapping-gis>
- Iowa Department of Natural Resources, Natural Areas Inventory - <https://programs.iowadnr.gov/naturalareasinventory/pages/query.aspx>

### Kansas

- State of Kansas GIS Data Access and Support Center - <https://www.kansasgis.org/>
- Kansas Department of Wildlife & Parks, Threatened and Endangered Wildlife - <https://ksoutdoors.com/services/threatened-and-endangered-wildlife>

### Missouri

- Missouri Spatial Data Information Service - <http://msdis.missouri.edu/>
- Missouri Department of Natural Resources GIS Data - <https://dnr.mo.gov/gis/index.html>

### Nebraska

- Nebraska Department of Environment & Energy, Data Bank Spatial/GIS Databases - <https://dnr.nebraska.gov/data>
- University of Nebraska, Lincoln School of Natural Resources - <http://snr.unl.edu/data/geographygis/index.aspx>
- Nebraska MAP - <https://nebraskamap.gov/>

The tables below contain detailed information regarding threatened and endangered species and protected areas as identified by various federal, state, and local agencies. The tables are organized first by State, and then by data category and type, followed by date, uniform resource locator (URL) and comments associated with the data. The tables can be used as a guide to streamline the research of a given area based on the State and data type in question. There are numerous types of data represented though, a majority of the information contained requires GIS software for viewing.

#### **4.0 U.S. EPA REGION 7 RESPONSE & PLANNING PUBLIC VIEWER**

The U.S. EPA Region 7 Response & Planning Public Viewer (R7 Application) is designed to confront the problem of inadequate and unconsolidated information regarding infrastructure and sensitive areas during a response to significant man-made and natural disasters along major river corridors within EPA Region 7. The R7 Application consolidates various forms of information into a comprehensive and easy-to-use web-based mapping application in which ESRI GIS JAVA technology is used to deliver mapping data coupled with GIS-like functionality. The R7 Application is comprised of mapping components and layers including, but not limited to: response strategies, river access points (boat ramps), sensitive species information, critical habitat information, protected areas, wetlands, mile marker locations, U.S. Energy Information Administration (EIA) Pipeline information, river navigation charts, Public Land Survey System (PLSS) data, response jurisdictions, regulated facilities, infrastructure, recreation facilities, water dataset layers, and National Oceanic and Atmospheric Administration (NOAA) datasets. Each component is organized and grouped in an intuitive layer structure and is attributed with pertinent response information. Various layers are clickable in the map, allowing for display of information such as emergency responder contact information and boom deployment strategies in customized data pop-ups. This information provides decision makers a common operational picture to help predict, prevent, or minimize the risk to human health and the environment. The R7 Application is designed and built using ESRI GIS JAVA technology and is easily updated and enhanced, allowing for low-cost and efficient maintenance.

The R7 Application employs multiple levels of security and leverages user access through EPA's OSC Response website (<https://response.epa.gov/>) that requires username/password credentials, as well as GIS server credentials. To access the application or to open a new account in the EPA

OSC Response website, get approval from the R7 Application owner, EPA Region 7 FOSC Jeff Pritchard. Once approval is granted, users can navigate to <https://response.epa.gov/responseandplanningviewerpublic> to access the site and use GIS Server credentials provided by the R7 Application owner to access the map.

For more information, please contact EPA Region 7 FOSC Jeff Pritchard.

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## **APPENDIX B.1**

# **REGULATED FACILITY RESPONSE PLAN SITES**

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**Facility Response Plan (FRP) Sites.** Source: U.S. EPA Region 7 FRP Database, November 27, 2023

FRP Number	Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
07A0116	Electrifarm - MidAmerican Energy	3233 West Shaulis Rd	Waterloo	Black Hawk	IA	50704	42.44291	-92.41914
07A0021	Magellan Pipeline Company - Waterloo Terminal	5360 Eldora Rd (Old Hwy 635)	Waterloo	Black Hawk	IA	50701	42.43750	-92.42190
07A0240	Northland Products Company	1000 Rainbow Dr	Waterloo	Black Hawk	IA	50701	42.51147	-92.38360
07A0181	Poet Biorefining - Fairbank	1277 102nd St	Fairbank	Buchanan	IA	50629	42.64070	-92.02680
07A0212	POET Shell Rock	30750 212th St - Hwy 3	Shell Rock	Butler	IA	50670	42.73750	-92.61750
07A0323	Shell Rock Soy Processing	30340 220th St.	Shell Rock	Butler	IA	50670	42.72938	-92.62707
07A0300	AGP - Manning Soybean Oil Production plant	1000 300 Street	Manning	Carroll	IA	51455	41.91998	-95.06995
07A0264	REG Ralston, LLC	33321 215th St	Ralston	Carroll	IA	51459	42.04392	-94.64197
07A0310	Elite Octane	60502 Glacier Road	Atlantic	Cass	IA	50022	41.42278	-95.03000
07A0025	Magellan Pipeline Company - Mason City Terminal	2810 Main Ave E	Clear Lake	Cerro Gordo	IA	50428	43.13890	-93.35330
07A0269	AGP - Mason City	1605 19th St. SW	Mason City	Cerro Gordo	IA	52046	43.13259	-93.22711
07A0256	Golden Grain Energy, LLC	1833 43rd St SW	Mason City	Cerro Gordo	IA	50401	43.11203	-93.23001
07A0287	REG Mason City	4172 19th Street SW	Mason City	Cerro Gordo	IA	50401	43.13568	-93.26463
07A0232	Little Sioux Corn Processors, L.P.	4808 F Ave	Marcus	Cherokee	IA	51035	42.82167	-95.76444
07A0271	Homeland Energy Solutions, LLC	2779 Iowa Highway 24	Lawler	Chickasaw	IA	52154	43.07282	-92.20644
07A0306	AGP -Everly Oil Storage Facility	1755 340th Street	Everly	Clay	IA	51338	43.15490	-95.23697
07A0179	Camanche Facility	3101 - 21st St	Camanche	Clinton	IA	52730	41.80086	-90.28021
07A0112	Archer Daniels Midland Company (Clinton)	1251 Beaver Channel Pkwy	Clinton	Clinton	IA	52732	41.82080	-90.20830
07A0192	Andersons Marathon Holdings, LLC	2404 W Hwy 30	Denison	Crawford	IA	51442	41.98980	-95.39744
07A0128	FEED Energy - Redfield, IA	1525 US Hwy 6	Redfield	Dallas	IA	50233	41.59444	-94.18139
07A0210	Big River Resources Dyersville Ethanol	3294 Vine Rd	Dyersville	Delaware	IA	52040	42.48691	-91.16048
07A0262	Big River Resources, LLC	15210 103rd Street	West Burlington	Des Moines	IA	50107	40.83169	-91.22265
07A0017	Magellan Pipeline Company - Milford Terminal	2451 Hwy 71	Milford	Dickinson	IA	51351	43.29190	-95.15110
07A0193	NuStar/Kaneb - Milford Terminal	2127 220th St	Milford	Dickinson	IA	51351	43.32708	-95.16732
07A0298	Green Plains Superior	1495 320th Avenue	Superior	Dickinson	IA	51363	43.43250	-94.96013
07A0036	BP Products - Dubuque Terminal	15393 Old Hwy Rd	Dubuque	Dubuque	IA	52068	42.48389	-90.78778
07A0093	Flint Hills Resources, LP - Dubuque Asphalt Plant	1550 Koch Court	Dubuque	Dubuque	IA	52001	42.50547	-90.65225
07A0010	Magellan Pipeline Company - Dubuque Terminal	8038 St. Joe's Prairie Rd	Dubuque	Dubuque	IA	52003	42.41190	-90.73190
07A0268	Western Dubuque Biodiesel, LLC	904 Jamesmeier Road	Farley	Dubuque	IA	52046	42.44955	-91.02090

**Facility Response Plans (FRP) Sites.** Source: U.S. EPA Region 7 FRP Database, November 27, 2023

FRP Number	Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
07A0199	Valero Charles City Ethanol Plant	1787 Quarry Rd	Charles City	Floyd	IA	50616	43.09505	-92.74642
07A0205	Green Plains Renewable Energy, Inc.	4124 Airport Rd	Shenandoah	Fremont	IA	51601	40.75475	-95.39559
07A0257	Louis Dreyfus Commodities Grand Junction, LLC	1149 U Ave	Grand Junction	Greene	IA	50107	42.05421	-94.23854
07A0219	Hawkeye Renewables - Menlo Ethanol Plant	3363 Talon Ave	Menlo	Guthrie	IA	50164	41.52361	-94.38194
07A0324	POET Bioprocessing - Jewell, Inc.	2601 320th Street	Jewell	Hamilton	IA	50130	42.32911	-93.66423
07A0173	Cargill, Inc. - Macy Terminal (Ackley)	11186 Highway S-55	Ackley	Hardin	IA	50601	42.61513	-93.08545
07A0146	Cargill, Inc. - Soybean Processing Plant	602 Industrial Rd	Iowa Falls	Hardin	IA	50126	42.51209	-93.26489
07A0177	Poet Biorefining - Iowa Falls	21050 140th St	Iowa Falls	Hardin	IA	50126	42.50481	-93.28655
07A0216	Flint Hills Resources (formerly Platinum Ethanol)	2585 Quail Ave	Arthur	Ida	IA	51431	42.33115	-95.35485
07A0171	Cargill, Inc. - Holstein Facility	1317 Alpine	Holstein	Ida	IA	51025	42.51730	-95.64447
07A0263	REG Newton, LLC	3426 East 28th	Newton	Jasper	IA	50208	41.73262	-93.01499
07A0019	Magellan Pipeline Company - Iowa City Terminal	912 1st Ave	Coralville	Johnson	IA	52241	41.68250	-91.57030
07A0033	Buckeye (frmly BP Products) - Cedar Rapids	2092 Hwy 965 N.E.	North Liberty	Johnson	IA	52317	41.78278	-91.63250
07A0299	AGP - Algona Methyl Ester Plant	2108 140th Ave	Algona	Kossuth	IA	50511	43.07921	-94.18145
07A0301	AGP - Algona Soybean Oil Storage Terminal	1108 240th Street	Algona	Kossuth	IA	50511	43.11127	-94.22925
07A0158	Flint Hills Resources LP, Algona, IA	832 N Main	Algona	Kossuth	IA	50511	43.07596	-94.21781
07A0249	Valero - Lakota Plant	1660 428th St	Lakota	Kossuth	IA	50451	43.38422	-94.14375
07A0135	Sinclair - Montrose Products Terminal	2506 260th St	Montrose	Lee	IA	52639	40.58146	-91.42933
07A0250	Archer Daniels Midland Company - Cedar Rapids	1350 Waconia Ave SW	Cedar Rapids	Linn	IA	52404	41.92722	-91.68639
07A0108	Cargill, Inc. - East Soybean Plant (Cedar Rapids)	411 6th St NE	Cedar Rapids	Linn	IA	52402	41.98383	-91.66711
07A0189	NuStar/Kaneb - Rock Rapids Terminal	3025 Highway 9 St	Rock Rapids	Lyon	IA	51246	43.43271	-96.19064
07A0176	Bunge Soybean Processing Division	19560 Bunge Ave	Council Bluffs	Mills	IA	51502	41.15519	-95.81117
07A0253	Absolute Energy, LLC	1372 State Line Rd	St. Ansgar	Mitchell	IA	50472	43.49656	-92.95174
07A0291	Cargill Eddyville	1 Cargill Drive	Eddyville	Monroe	IA	52553	41.14036	-92.64382
07A0304	Grain Processing Corp	1600 Oregon Street	Muscatine	Muscatine	IA	52761	41.39951	-91.05979
07A0296	AGP-Sheldon	804 Second Street	Sheldon	Obrien	IA	51201	43.18236	-95.85767
07A0285	AGP - Emmetsburg	4739 380th Street	Emmetsburg	Palo Alto	IA	50536	43.10190	-94.65441
07A0197	NuStar/Kaneb - Le Mars Terminal	33035 C12	Le Mars	Plymouth	IA	51031	42.89475	-96.17463
07A0320	Siculus, Inc.	100 Share Way NW	Altoona	Polk	IA	50009	41.66613	-93.50943

**Facility Response Plans (FRP) Sites.** Source: U.S. EPA Region 7 FRP Database, November 27, 2023

FRP Number	Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
07A0248	Archer Daniels Midland (ADM) - Des Moines	1935 East Euclid Ave	Des Moines	Polk	IA	50313	41.62674	-93.58413
07A0055	Bituminous Materials - Des Moines	900 E Raccoon	Des Moines	Polk	IA	50309	41.58458	-93.60321
07A0032	Buckeye Energy Services - Des Moines Terminal	1501 NW 86th St	Des Moines	Polk	IA	50325	41.60299	-93.73409
07A0109	Cargill, Inc. - Des Moines	3030 E Granger Ave	Des Moines	Polk	IA	50317	41.57557	-93.55715
07A0020	Magellan Pipeline Company - Des Moines Terminal	2503 SE 43rd St	Des Moines	Polk	IA	50327	41.56155	-93.52555
07A0119	Sycamore Energy Center - MidAmerican Energy	6141 NW Beaver Dr	Johnston	Polk	IA	50131	41.67174	-93.68034
07A0104	Phillips 66 - Des Moines Terminal	4500 Vandalia Rd	Pleasant Hill	Polk	IA	50327	41.56973	-93.52667
07A0039	Buckeye Terminals - Council Bluffs	829 E South Omaha Bridge Rd	Council Bluffs	Pottawattamie	IA	51503	41.21780	-95.83225
07A0118	Council Bluffs Energy Center - MidAmerican Energy	2115 Navajo St	Council Bluffs	Pottawattamie	IA	51501	41.18678	-95.84122
07A0314	Gable Corp. - SLN Facility	10410 Bunge Ave	Council Bluffs	Pottawattamie	IA	51503	41.17641	-95.80298
07A0307	Growmark, Inc. - Council Bluffs Lubricants	2200 South Avenue	Council Bluffs	Pottawattamie	IA	51503	42.24137	-95.84416
07A0131	Nustar (frmly NCRA Council Bluffs Terminal)	825 E South Omaha Bridge Rd	Council Bluffs	Pottawattamie	IA	51503	41.21714	-95.83398
07A0316	Red Giant Oil Company	1701 South 3rd Street	Council Bluffs	Pottawattamie	IA	51503	41.24546	-95.84833
07A0252	Southwest Iowa Renewable Energy (SIRE)	10868 189th St	Council Bluffs	Pottawattamie	IA	51503	41.17151	-95.82865
07A0123	Warren Performance Packaging	2850 River Rd	Council Bluffs	Pottawattamie	IA	51501	41.23314	-95.90685
07A0273	Western Iowa Energy	1220 S Central	Wall Lake	Sac	IA	52154	42.25437	-95.09227
07A0100	Arconic Davenport LLC	4879 State St	Bettendorf	Scott	IA	52722	41.53552	-90.46270
07A0035	Buckeye (frmly BP)- Bettendorf Terminal	75 31st St	Bettendorf	Scott	IA	52722	41.52497	-90.48887
07A0155	Magellan Pipeline Company - Bettendorf Terminal	312 S Bellingham St	Bettendorf	Scott	IA	52722	41.52920	-90.46754
07A0048	U.S. Oil Bettendorf Terminal	2925 Depot St	Bettendorf	Scott	IA	52722	41.52331	-90.48736
07A0092	Flint Hills Resources - Davenport	501 East Front St	Davenport	Scott	IA	52804	41.46400	-90.67940
07A0037	TexPar Energy, LLC (Davenport Terminal)	601 E Front St	Davenport	Scott	IA	52804	41.46413	-90.67708
07A0227	Siouxland Energy and Livestock Cooperative	3890 Garfield Ave	Sioux Center	Sioux	IA	51250	43.08560	-96.22995
07A0267	Lincolnway Energy, LLC	59511 West Lincoln Highway	Nevada	Story	IA	51459	42.02672	-93.51088
07A0294	Bituminous Materials	3380 L Avenue	Tama	Tama	IA	52339	41.96049	-92.56153
07A0313	ZFS Creston, LLC	1310 E Howard St	Creston	Union	IA	50801	41.05875	-94.34406
07A0034	Buckeye (frmly BP Products) - Ottumwa Terminal	16848 - 87th St	Ottumwa	Wapello	IA	52501	41.01222	-92.48195
07A0272	Iowa Renewable Energy, LLC	1701 East 7th St	Washington	Washington	IA	52154	41.30411	-91.66943
07A0006	Growmark, Inc. - Fort Dodge Terminal	3140 - 200th St	Duncombe	Webster	IA	50532	42.49940	-94.02170

**Facility Response Plans (FRP) Sites.** Source: U.S. EPA Region 7 FRP Database, November 27, 2023

FRP Number	Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
07A0223	Cargill, Inc. - Fort Dodge	1950 Harvest Avenue	Fort Dodge	Webster	IA	50581	42.50524	-94.31461
07A0218	Valero Fort Dodge Ethanol	1930 Hayes Ave	Fort Dodge	Webster	IA	50501	42.51122	-94.29785
07A0073	AGP - Sergeant Bluff	Port Neal Industrial Rd	Sergeant Bluff	Woodbury	IA	51054	42.30506	-96.36264
07A0168	BWC Terminals LLC	4425 41st St	Sioux City	Woodbury	IA	51108	42.54176	-96.35251
07A0172	Cargill, Inc. - Sioux City Facility	1016 Clark St.	Sioux City	Woodbury	IA	51101	42.50301	-96.39096
07A0180	Jebro, Inc.	2303 Bridgeport Dr	Sioux City	Woodbury	IA	51111	42.43188	-96.38502
07A0022	Magellan Pipeline Company - Sioux City Terminal	4300 - 41st St	Sioux City	Woodbury	IA	51108	42.53921	-96.35682
07A0284	AGP - Eagle Grove	500 N. Commercial Avenue	Eagle Grove	Wright	IA	50533	42.66912	-93.90444
07A0293	Corn, LP	1303 Highway 3 East	Goldfield	Wright	IA	50542	42.73227	-93.91171
07A0190	East Kansas Agri-Energy, LLC	1304 S Main St	Garnett	Anderson	KS	66032	38.27048	-95.23700
07A0057	Magellan Pipeline Company - Great Bend Terminal	48 NE Highway 156	Great Bend	Barton	KS	67530	38.36874	-98.69151
07A0322	BG Products - El Dorado	2415 Pioneer Drive	El Dorado	Butler	KS	67042	37.83014	-96.88305
07A0072	Frontier El Dorado Refining Co.	1401 S Douglas Rd	El Dorado	Butler	KS	67042	37.79560	-96.86670
07A0265	MVPurchasing	3760 SW 20th St	El Dorado	Butler	KS	67216	37.79707	-96.91084
07A0266	NuStar Energy - El Dorado Station	1624 Sunset	El Dorado	Butler	KS	67216	37.80472	-96.87361
07A0279	Plains Marketing - Harpers Ranch Station	County Road X	Sitka	Clark	KS	67831	37.13339	-99.57950
07A0195	NuStar/Kaneb - Concordia Terminal	1612 Deer Rd/US Hwy 24	Delphos	Cloud	KS	67436	39.36412	-97.62872
07A0311	Plains All American - Pipeline and Truck Station		Coldwater	Comanche	KS	67219	37.28889	-99.32639
07A0069	Valero Arkansas City Terminal	1400 South M St	Arkansas City	Cowley	KS	67005	37.04543	-97.02176
07A0023	Growmark, Inc. - St. Joe Terminal	963 Vernon Rd	Wathena	Doniphan	KS	66090	39.75181	-94.92677
07A0236	Bonanza BioEnergy	2830 US Highway 50	Garden City	Finney	KS	67846	37.95864	-100.83600
07A0054	Ergon Asphalt and Emulsions	2600 Butter and Egg Rd	Dodge City	Ford	KS	67801	37.74831	-99.97777
07A0215	Western Plains Energy, LLC	3022 County Rd 18	Oakley	Gove	KS	67748	39.12149	-100.73523
07A0203	Ergon Asphalt and Emulsions - Halstead KS	300 Industrial Rd	Halstead	Harvey	KS	67056	38.00488	-97.52257
07A0129	Exxon USA - Olathe Grease Plant	1400 S. Harrison	Olathe	Johnson	KS	66061	38.86250	-94.81472
07A0024	Magellan Pipeline Company - Olathe Terminal	13745 W 135th St	Olathe	Johnson	KS	66062	38.88170	-94.74470
07A0049	Ergon Asphalt & Emissions, LLC	10520 Wolcott Dr	Kansas City	Leavenworth	KS	66109	39.20484	-94.81521
07A0121	Bunge Corporation, North America (OPD West), Inc.	701 East 6th Ave	Emporia	Lyon	KS	66801	38.40435	-96.16931

**Facility Response Plans (FRP) Sites.** Source: U.S. EPA Region 7 FRP Database, November 27, 2023

FRP Number	Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
07A0160	McPherson Board of Public Utilities (Power Plant No 2)	1128 West Avenue A	McPherson	McPherson	KS	67460	38.36397	-97.68212
07A0201	Mid-Continent Fractionation and Storage, LLC	1372 Seventh Ave	McPherson	McPherson	KS	67460	38.37278	-97.79556
07A0231	NuStar Pipeline Operating Partnership L.P.	1152 14th Ave	McPherson	McPherson	KS	67221	38.34169	-97.66294
07A0185	ONEOK, Conway Facility	661 Highway 56	McPherson	McPherson	KS	67460	38.37337	-97.80445
07A0295	CleanHarbors Transformer Processing Facility	2474 Highway 169	Coffeyville	Montgomery	KS	67337	37.08804	-95.58215
07A0004	Coffeyville Resources Refining & Marketing	400 N Linden St	Coffeyville	Montgomery	KS	67337	37.05000	-95.60139
07A0067	Coffeyville Resources Terminal - Phillipsburg	Hwy 183 N	Phillipsburg	Phillips	KS	67661	39.77367	-99.33327
07A0206	Prairie Horizon Agri-Energy, LLC	1664 E 100 Rd	Phillipsburg	Phillips	KS	67661	39.76066	-99.30531
07A0258	TAMKO Building Products	1598 North Highway 183	Phillipsburg	Phillips	KS	67216	39.76942	-99.32606
07A0149	Jeffrey Energy Center	25905 Jeffrey Rd	St. Marys	Pottawatomie	KS	66536	39.28838	-96.11225
07A0303	Pratt Energy, LLC	10333 Northeast 30th Street	Pratt	Pratt	KS	67124	37.68364	-98.71034
07A0159	Enterprise Products Operating, LP - Hutchinson	2621 Mohawk Rd	Hutchinson	Reno	KS	67501	38.02140	-97.99273
07A0191	NuStar/Kaneb - Hutchinson Terminal	3300 E Avenue G	Hutchinson	Reno	KS	67501	38.04436	-97.87329
07A0152	OHL P Hutchinson	1910 South Broadacres Rd	Hutchinson	Reno	KS	67501	38.03123	-97.97576
07A0003	ONEOK Field Services - Bushton	777 Avenue Y	Bushton	Rice	KS	67427	38.52368	-98.35460
07A0126	Kansas Ethanol, LLC	1630 Ave Q	Lyons	Rice	KS	67554	38.28516	-98.19398
07A0281	Plains - Schurr Pipeline Station	321 Avenue Q	Raymond	Rice	KS	67573	38.29097	-98.44029
07A0270	US Energy Partners, LLB DBA White Energy	1224 East 15th Street	Russell	Russell	KS	67216	38.89934	-98.84427
07A0200	NuStar/Kaneb - Salina Terminal	2137 W Old Highway 40	Salina	Salina	KS	67401	38.84139	-97.64139
07A0056	Magellan Pipeline Company - Scott City Terminal	100 Hwy 4	Scott City	Scott	KS	67871	38.59958	-100.90555
07A0136	Gordon Evans Energy Center	6001 N. 151 St W	Colwich	Sedgwick	KS	67030	37.78730	-97.52230
07A0162	Magellan Pipeline Company - Wichita Terminal	1120 S Meridian	Valley Center	Sedgwick	KS	67147	37.81865	-97.36986
07A0106	BG Products - Wichita	740 South Wichita Street	Wichita	Sedgwick	KS	67213	37.67786	-97.34024
07A0139	Cargill, Inc. - Oilseeds Division (Wichita)	1425 N Mosley & 1417 N Barwise	Wichita	Sedgwick	KS	67214	37.70921	-97.32959
07A0312	Clean Harbors Wichita, LLC	2932 and 2808 North Ohio Street	Wichita	Sedgwick	KS	67219	37.73407	-97.32284
07A0308	HOC Industries, Inc.	3511 North Ohio and 3684 North Ohio	Wichita	Sedgwick	KS	67219	37.74696	-97.32507
07A0238	Lubrication Engineers, Inc.	1919 E Tulsa St	Wichita	Sedgwick	KS	67216	37.63572	-97.31386
07A0225	McConnell Air Force Base	57830 Pittsburg Street, Suite 120	Wichita	Sedgwick	KS	67221	37.63759	-97.25148



**Facility Response Plans (FRP) Sites.** Source: U.S. EPA Region 7 FRP Database, November 27, 2023

FRP Number	Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
07A0047	Phillips 66 - Wichita North	2400 E 37th St N	Wichita	Sedgwick	KS	67219	37.75955	-97.30618
07A0309	RS Used Oil Services, Inc.	2932 N Ohio & 2808 N Ohio	Wichita	Sedgwick	KS	67220	37.73460	-97.32318
07A0237	Arkalon Ethanol	8664 Road P	Liberal	Seward	KS	67901	37.10672	-100.80052
07A0096	Goodyear Tire & Rubber Co. - Topeka Facility	2000 NW Hwy 24	Topeka	Shawnee	KS	66618	39.09480	-95.69562
07A0007	Magellan Pipeline Company - Topeka Terminal	8050 SW Topeka Blvd	Wakarusa	Shawnee	KS	66546	38.92126	-95.68529
07A0317	Seaboard Energy Kansas, LLC	1043 Road P	Hugoton	Stevens	KS	67951	37.18057	-101.38425
07A0315	Plains All American - Colby Terminal		Gem	Thomas	KS	67219	39.47750	-100.90778
07A0002	Board of Public Utilities - Quindaro Power Station	3601 N 12th St.	Kansas City	Wyandotte	KS	66104	39.14851	-94.63821
07A0144	Exxon Mobil Oil Corporation - KC Lube Plant	966 Sunshine Rd	Kansas City	Wyandotte	KS	66115	39.14674	-94.63188
07A0175	Fuchs Lubricants Co. - KC Division	2140 South 88th St	Kansas City	Wyandotte	KS	66111	39.06065	-94.78368
07A0008	Magellan Pipeline Co. - Fairfax West Reclamation	1090 Sunshine Rd	Kansas City	Wyandotte	KS	66115	39.15000	-94.63420
07A0009	Magellan Pipeline Company - Kansas City	401 E Donovan Rd	Kansas City	Wyandotte	KS	66115	39.13810	-94.60250
07A0045	Phillips 66 - Kansas City Terminal	2029 Fairfax Trfwy	Kansas City	Wyandotte	KS	66115	39.12497	-94.61045
07A0161	Proctor & Gamble Manufacturing Company	1900 Kansas Ave	Kansas City	Wyandotte	KS	66105	39.08731	-94.65041
07A0124	BNSF (Argentine Railyard) Locomotive Terminal	2201 Argentine Blvd	Kansas City	Wyandotte	KS	66106	39.07890	-94.65383
07A0220	Sinclair Kansas City Products Terminal	3401 Fairbanks Ave	Kansas City	Wyandotte	KS	66106	39.08469	-94.66449
07A0245	Archer Daniels Midland Co./Mexico	400 E. Holt St	Mexico	Audrain	MO	65265	39.16917	-91.87889
07A0005	Magellan Pipeline Company - Columbia Terminal	5531 Highway 63 S	Columbia	Boone	MO	65201	38.88530	-92.26560
07A0098	AGP - St. Joseph	900 Lower Lake Rd	St. Joseph	Buchanan	MO	64504	39.72732	-94.87340
07A0198	Evergy - Lake Road Generating Station	1413 Lower Lake Rd	St. Joseph	Buchanan	MO	64504	39.72500	-94.87722
07A0230	ICM Biofuels Operator/Life Line Foods Owner	2811 S. 11th St.	St. Joseph	Buchanan	MO	64503	39.73943	-94.84551
07A0292	Seaboard Energy Missouri	5701 Stockyards Expressway	St. Joseph	Buchanan	MO	65404	39.71464	-94.87468
07A0081	Trans-Montaigne - Cape Girardeau Terminal	1400 S Giboney St	Cape Girardeau	Cape Girardeau	MO	63703	37.28528	-89.52833
07A0211	Show Me Ethanol, LLC	26530 E Hwy 24	Carrollton	Carroll	MO	64633	39.36618	-93.44828
07A0221	Sinclair Carrollton Products Terminal	26036 Old Highway 24	Carrollton	Carroll	MO	64633	39.36392	-93.45888
07A0143	Brenntag - Mid South Division	6301 NE Birmingham Rd	Kansas City	Clay	MO	64117	39.15441	-94.50482
07A0046	Phillips 66 - Jefferson City Terminal	2116 Idlewood Rd	Jefferson City	Cole	MO	65109	38.54757	-92.21500
07A0013	Magellan Pipeline Company - Springfield Terminal	3132 S State Hwy MM	Brookline	Greene	MO	65619	37.15871	-93.42292
07A0297	Coastal Energy Corporation	234 Burnham Road	Willow Springs	Howell	MO	65793	36.97555	-91.95233



**Facility Response Plans (FRP) Sites.** Source: U.S. EPA Region 7 FRP Database, November 27, 2023

FRP Number	Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
07A0071	Greenwood Energy Center	14015 S Smart Road	Greenwood	Jackson	MO	64034	38.86186	-94.29696
07A0107	Cargill, Inc. - Soybean Processing Facility (KC)	2306 Rochester St	Kansas City	Jackson	MO	64120	39.12103	-94.55563
07A0026	KCP&L - Northeast Station	920 N Olive Street	Kansas City	Jackson	MO	64120	39.12417	-94.55528
07A0283	Union Pacific RR KC Neff Yard	6400 Martin Avenue	Kansas City	Jackson	MO	64120	39.11937	-94.55666
07A0235	Vance Brothers - Brighton	5201 Brighton Ave	Kansas City	Jackson	MO	64130	39.03007	-94.52657
07A0088	Vance Brothers - Chelsea	4915 Chelsea	Kansas City	Jackson	MO	64130	39.03607	-94.52785
07A0038	Buckeye - Sugar Creek (BTTUG)	1000 N Sterling Ave	Sugar Creek	Jackson	MO	64054	39.12222	-94.43813
07A0012	Magellan Pipeline Company - Carthage Terminal	18195 County Rd 138	Jasper	Jasper	MO	64755	37.31360	-94.30470
07A0148	State Line Power Plant	2299 S State Line Ave	Joplin	Jasper	MO	64804	37.07276	-94.61773
07A0142	Empire Energy Center	2537 Fir Road	Sarcoxie	Jasper	MO	64862	37.14008	-94.10358
07A0188	Holden Power Plant	100 SW State Rd 131	Holden	Johnson	MO	64040	38.75333	-93.99778
07A0137	USAF Whiteman AFB	509 Spirit Blvd.	Whiteman AFB	Johnson	MO	65305	38.73078	-93.55309
07A0164	Phillips 66 - Mount Vernon Terminal	15138 Hwy 96	Mount Vernon	Lawrence	MO	65712	37.10470	-93.78820
07A0084	Ayers Oil Company - Canton, MO Terminal	610 N 4th Street	Canton	Lewis	MO	63435	40.13466	-91.51505
07A0014	Magellan Pipeline Company - Palmyra Terminal	6789 County Rd 312	Palmyra	Marion	MO	63461	39.87670	-91.52690
07A0305	CertainTeed Roofing Plant	100 CertainTeed Drive	Jonesburg	Montgomery	MO	63351	38.84348	-91.27059
07A0087	Heartland Asphalt Materials	297 Hwy 61 S	New Madrid	New Madrid	MO	63869	36.57724	-89.55826
07A0286	Oakley Terminal	2353 North State Highway D	Hayti	Pemiscot	MO	63851	36.26022	-89.70003
07A0277	Calumet Missouri, LLC	11089 Highway D	Louisiana	Pike	MO	63353	39.42297	-91.02748
07A0095	KCI - Bulk Fuel Storage Facility	217 Bern St	Kansas City	Platte	MO	64153	39.31244	-94.71503
07A0169	Mid-Missouri Energy, Inc. - Ethanol Plant	15311 N. Saline 65 Hwy	Malta Bend	Saline	MO	65339	39.19685	-93.38046
07A0122	Enterprise Refined Products - Cape Girard. District	10653 State Hwy N	Scott City	Scott	MO	63780	37.22627	-89.48213
07A0011	Buckeye - St Charles Terminal	4751 Veterans Memorial Pkwy	St. Peters	St Charles	MO	63376	38.79649	-90.58714
07A0321	STL Fuel Bulk Fuel Storage Facility	6024 James S. McDonnell Blvd	Berkeley	St Louis	MO	63134	38.74826	-90.34335
07A0132	Ergon Asphalt Partner - St. Louis	201 E Nagel Street	St. Louis	St Louis	MO	63111	38.55016	-90.25266
07A0059	J. D. Streett & Co. - 1st Street	3800 S First St	St. Louis	St Louis	MO	63118	38.58345	-90.21745
07A0058	J. D. Streett & Co. - Park Avenue	4067 Park Ave	St. Louis	St Louis	MO	63110	38.62181	-90.24923
07A0064	J. D. Streett & Co. - River Road	No 1 River Rd	St. Louis	St Louis	MO	63125	38.50905	-90.27341
07A0078	Valvoline (a.k.a. Ashland)	3536 S First Street	St. Louis	St Louis	MO	63118	38.58711	-90.21328

**Facility Response Plans (FRP) Sites.** Source: U.S. EPA Region 7 FRP Database, November 27, 2023

FRP Number	Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
07A0130	ADM - North Terminal	3854 S First St	St. Louis	St Louis City	MO	63118	38.58167	-90.22050
07A0065	ARTCO - South Terminal (American River Transport Co.)	4528 S Broadway	St. Louis	St Louis City	MO	63111	38.57271	-90.23141
07A0246	Buckeye Terminals - South Terminal	4040 S 1st St or 4070 S 1st St?	St. Louis	St Louis City	MO	63118	38.58003	-90.22238
07A0080	Buckeye Terminals - St. Louis North Terminal	239 E Prairie	St. Louis	St Louis City	MO	63147	38.67950	-90.19988
07A0079	Center Point Terminal Company, LLC	1 Mullanphy Street	St. Louis	St Louis City	MO	63102	38.64306	-90.18306
07A0068	Kinder Morgan Transmix Terminal	4070 S 1st St	St. Louis	St Louis City	MO	63118	38.57991	-90.22391
07A0111	The Kiesel Company / Kiesel Marine	1 Branch St	St. Louis	St Louis City	MO	63147	38.65885	-90.18565
07A0208	Archer Daniels Midland Company - Deefield	17700 S Hwy T	Deerfield	Vernon	MO	64741	37.83472	-94.58361
07A0204	Valero Albion Plant	2615 260th St, #100	Albion	Boone	NE	68620	41.67934	-97.97908
07A0247	Abengoa Bioenergy of Nebraska	35955 Navaho Rd	Ravenna	Buffalo	NE	68869	41.02057	-98.86976
07A0043	Holly Frontier/Plains Pipeline - Sidney Terminal	11712 US Hwy 30	Sidney	Cheyenne	NE	69612	41.15078	-102.93381
07A0209	SiouxLand Ethanol, LLC	1501 Knox Blvd	Jackson	Dakota	NE	68743	42.45636	-96.59741
07A0125	Offutt Air Force Base (AFB)	205 Looking Glass Ave Suite 121	Offutt AFB	Douglas	NE	68113	41.11164	-95.91242
07A0153	AGP - Omaha	6501 North 9th St	Omaha	Douglas	NE	68112	41.31931	-95.92577
07A0015	Magellan Pipeline Company - Omaha Terminal	2205 North 11th St	Omaha	Douglas	NE	68110	41.27690	-95.92110
07A0260	Flint Hills Resources (FHR) Fairmont Facility	1214 Road G	Fairmont	Fillmore	NE	69336	40.61617	-97.60371
07A0182	NuStar/Kaneb - Geneva Terminal	1479 N 13th St	Geneva	Fillmore	NE	68361	40.55163	-97.59388
07A0214	E Energy Adams, LLC	13238 East Aspen Rd	Adams	Gage	NE	68301	40.48630	-96.54872
07A0282	Duonix Beatrice Facility	722 Kinney Drive	Beatrice	Gage	NE	68310	40.30935	-96.84042
07A0016	Magellan Pipeline Company - Doniphan Terminal	12275 S US Hwy 281	Doniphan	Hall	NE	68832	40.75080	-98.37560
07A0233	Ergon Asphalt Partners - Grand Island	4112 N Academy Rd	Grand Island	Hall	NE	68801	40.97675	-98.32611
07A0302	AGP - Hastings Soybean Oil Production Plant	2801 East 7th Street	Hastings	Hall	NE	68901	40.59434	-98.33987
07A0241	Green Plains Wood River	7874 S. 140th Rd	Wood River	Hall	NE	68883	40.81541	-98.60884
07A0289	Aventine Renewable Energy	2103 Harvest Drive	Aurora	Hamilton	NE	68818	40.87019	-98.04494
07A0255	Sandhills Renewable Energy, LLC	87590 Hillcrest Rd	Atkinson	Holt	NE	68713	42.51763	-98.95652
07A0186	KAAPA Ethanol, LLC	8450 KAAPA Ln	Minden	Kearney	NE	68959	40.48336	-99.07722
07A0147	Archer Daniels Midland Company - Lincoln	7800 Thayer St	Lincoln	Lancaster	NE	68529	40.86584	-96.61737
07A0051	Hobson Yard - Lincoln Facility	801 West "O" St	Lincoln	Lancaster	NE	68528	40.81053	-96.73322

**Facility Response Plans (FRP) Sites.** Source: U.S. EPA Region 7 FRP Database, November 27, 2023

FRP Number	Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
07A0243	Lincoln Electric System - Terry Bundy Generating Station	7707 Bluff Rd	Lincoln	Lancaster	NE	68517	40.91444	-96.61583
07A0244	Lincoln Electrical System - Rokeby Generating Station	8000 SW 12th St	Lincoln	Lancaster	NE	68523	40.73293	-96.73977
07A0018	Magellan Pipeline Company - Lincoln Terminal	2000 Saltillo Rd	Roca	Lancaster	NE	68430	40.69810	-96.69250
07A0101	Phillips 66 - Lincoln Terminal	1345 W Saltillo Rd	Roca	Lancaster	NE	68430	40.69692	-96.70072
07A0075	Bailey Yard	4601 W. Front St	North Platte	Lincoln	NE	69101	41.14539	-100.84374
07A0194	NuStar/Kaneb - North Platte Terminal	17504 S Hwy 83	North Platte	Lincoln	NE	69101	40.97742	-100.75561
07A0226	Elkhorn Valley Ethanol, LLC	3002 N Victory Rd	Norfolk	Madison	NE	68701	42.06804	-97.38332
07A0183	NuStar/Kaneb - Norfolk Terminal	4708 N 13th St	Norfolk	Madison	NE	68701	42.09028	-97.42306
07A0228	Green Plains Central City, LLC	214 20th St	Central City	Merrick	NE	68826	41.11026	-97.97109
07A0254	Bridgeport Ethanol, LLC	10106 S Railroad Ave	Bridgeport	Morrill	NE	69336	41.64563	-103.07944
07A0207	Mid America Agri Products, LLC	76080 Rd 338	Madrid	Perkins	NE	69150	40.85263	-101.53838
07A0274	Husker Ag, LLC	54048 Husker Highway	Plainview	Pierce	NE	68008	42.35083	-97.70833
07A0251	Archer Daniels Midland Company - Columbus	3000 East 8th St	Columbus	Platte	NE	68601	41.41892	-97.29041
07A0184	NuStar/Kaneb - Columbus Terminal	147 Road D	Columbus	Platte	NE	68601	41.43761	-97.24481
07A0196	NuStar/Kaneb - Osceola Terminal	1705 131st Rd	Osceola	Polk	NE	68651	41.19019	-97.52158
07A0163	Magellan Pipeline Company - Capehart Terminal	13029 S 13th St	Bellevue	Sarpy	NE	68123	41.11580	-95.93140
07A0222	Union Pacific RR South Morrill Yard	90624 County Rd F	Morrill	Scotts Bluff	NE	69358	41.93397	-103.89294
07A0275	GreenAmerica Biofuels Ord, LLC	48267 Val-E Road	Ord	Valley	NE	68901	41.57035	-98.82110
07A0290	Cargill Blair	650 Industrial Park Drive	Blair	Washington	NE	68008	41.53722	-96.10250
07A0261	Green Plains Energy (a.k.a. Abengoa)	1414 Road O	York	York	NE	68467	40.89569	-97.54380

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## **APPENDIX B.2**

# **REGULATED MARINE TRANSPORTATION- RELATED SITES**

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**Marine Transportation-Related (MTR) Sites.** Source: U.S. Coast Guard MTR Database, December 2023

Facility Name	Material(s) Stored	Physical Address	County	City	State	Latitude	Longitude	COTP Zone
Archer Daniels Midland Company (ADM) - Clinton	Alcohol, Corn Oil, Caustic Soda	1251 Beaver Channel Pkwy	Clinton	Clinton	IA	41.401506	-91.058967	UMR
ADM North Terminal	Diesel Fuel, Lube Oil, Ethanol, Slop Oil, Soy Methyl Ester, #6 Oil, Methanol, Used Oil	3854 S First St	St. Louis	St. Louis	MO	41.819894	-90.209856	UMR
ADM South Terminal	Diesel Fuel, Bilge/Waste Oil, Edible Oils, Caustic Soda	4528 S Broadway	St. Louis	St. Louis	MO	42.505414	-90.651153	UMR
ARTCO Caustic Washdock	Caustic Soda	204 15th Ave	Clinton	Clinton	IA	38.549800	-90.253500	UMR
Ayers Oil Co.	Gasoline, Diesel Fuel	610 N 4th Street	Lewis	Canton	MO	38.579200	-90.223100	UMR
Brenntag - St. Louis	Caustic Soda, Caustic Potash, Propylene Glycol, Methanol, Acetone	139 E Soper St	St. Louis	St. Louis	MO	41.464047	-90.676900	UMR
Buckeye	Asphalt	4040 S First St	St. Louis	St. Louis	MO	41.464156	-90.679919	UMR
Caps Transfers, Inc. (formerly Brenntag - KC)	Asphalt	6301 NE Birmingham	Clay	KC	MO	38.582500	-90.220000	UMR
Center Point Terminal, LLC	Asphalt	Foot of Mullanphy St	St. Louis	St. Louis	MO	41.371842	-91.063456	UMR
Custom Fuel Services	Petroleum Products	13600 E Highway 80	Mississippi	Charelston	MO	41.804356	-90.235167	Ohio Valley
Ergon A & E (formerly Blue Knight Energy)	Asphalt, Heavy Oils	201 E Nagel St	St. Louis	St. Louis	MO	38.510800	-90.272900	UMR
Ergon A&E	Asphalt	10520 Wolcott Dr	Wyandotte	KC	KS	40.134167	-91.514444	UMR
First Missouri	Ammonium Nitrate	94 Airport Road	Cape Girardeau	Cape Girardeau	MO	38.581200	-90.221900	Ohio Valley
Flint Hills - Davenport	Asphalt	501 E Front St	Scott	Davenport	IA	38.586800	-90.213200	UMR
Flint Hills - Dubuque	Asphalt	1550 Koch Court	Dubuque	Dubuque	IA	41.823325	-90.202347	UMR
Grain Processing Corp.	Ethyl Alcohol	1600 Oregon St	Muscatine	Muscatine	IA	38.716000	-90.164700	UMR
Heartland Ashpalt	Asphalt	Highway 61 South	New Madrid	New Madrid	MO	38.573800	-90.230800	Ohio Valley
JD Streett	Unleaded Gasoline, #2 Fuel Oil, Ethanol	3800 S 1st St	St. Louis	St Louis	MO	37.285261	-89.528188	UMR
JD Streett Lemay Terminal	Sodium Hydroxide 50 percent, Denatured Alcohol, Corn Oil	1 S River Rd	St. Louis	St Louis	MO	38.584100	-90.217400	UMR
Kinder Morgan Liquid	Sodium Hydroxide, Calcium Chloride, Diethylene Glycol, Monoethylene Glycol, Calcium Bromide	2425 S Wharf St	St. Louis	St Louis	MO	39.204400	-94.816500	UMR
Kinder Morgan Transmix	Asphalt, Gasoline, Diesel, Transmix	4070 S 1st St	St. Louis	St Louis	MO	36.331500	-89.320830	UMR
Nutrien AG Solutions	Ammonium Thiosulfate Solution	500 Co Rd 406	New Madrid	Marston	MO	36.227819	-89.699263	Ohio Valley
Oakley Missouri	Diesel Fuel	241 Meredith Blvd	Premiscot	Hayti	MO	36.462490	-89.072420	LMR

Facility Name	Material(s) Stored	Physical Address	County	City	State	Latitude	Longitude	COTP Zone
Oakley Missouri	Ammonium Nitrate	241 Meredith Blvd	Premiscot	Hayti	MO	36.587100	-93.317100	LMR
Rowell Chemical	Caustic Soda	2581 Pettibone Ave	Muscatine	Muscatine	IA	39.154300	-94.506300	UMR
Texpar	Asphalt, Diesel	601 E Front St	Scott	Davenport	IA	38.555000	-90.248000	UMR
TransMontaigne	Petroleum Products	1400 S Giboney	Cape Girardeau	Cape Girardeau	MO	36.219167	-89.702500	Ohio Valley
Valvoline LLC	Lube Oil	3536 S First St	St. Louis	St Louis	MO	36.320090	-89.344770	UMR
Vertex	Caustic Soda	2619 Comanche Industrial Dr	Clinton	Camanche	IA	37.150170	-89.291330	UMR

Notes:

COTP Captain of the Port

UMR Upper Mississippi River

LMR Lower Mississippi River

KC Kansas City



## **APPENDIX B.3**

# **REGULATED RISK MANAGEMENT PROGRAM SITES**

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**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
AGRILAND FS, Inc. - Canby West	1345 160th St.	Adair	Adair	IA	50002	41.418447	-94.634348
Landus Cooperative - Adair	110 Audubon Street	Adair	Adair	IA	50002	41.500882	-94.637518
AGRILAND FS, Inc (Canby)	1706 160th Street	Casey	Adair	IA	50048	41.4165208	-94.565341
21st Century Cooperative - Fontanelle	220 West Washington	Fontanelle	Adair	IA	50846	41.290260	-94.569111
21Century Coop - Greenfield	601 SW 2nd	Greenfield	Adair	IA	50849	41.296199	-94.460940
Menlo, IA	1069 Pinewood Avenue	Menlo	Adair	IA	50164	41.494708	-94.417923
AGRILAND FS, Inc (Orient)	108 Jackson Road	Orient	Adair	IA	50858	41.2033129	-94.4260435
Landus Cooperative - Stuart	215 South Madison	Stuart	Adair	IA	50250	41.502389	-94.309386
Corning, IA 474	1823 Brooks Road	Corning	Adams	IA	50841	40.979113	-94.770960
Poet Biorefining - Corning, LLC	1680 Brooks Road	Corning	Adams	IA	50841	40.9661861	-94.793333
Agri Star Meat & Poultry, LLC	220 N. West St.	Postville	Allamakee	IA	52162	43.087222	-91.582500
Farmers Union Cooperative -Postville	325 CO-OP DRIVE	Postville	Allamakee	IA	52162	43.090770	-91.558580
AgVantage FS - Waukon	718 9th Street NW	Waukon	Allamakee	IA	52172	43.277222	-91.490556
Innovative Ag Services - Waukon (new)	2110 9th Street SW	Waukon	Allamakee	IA	52172	43.244653	-91.483967
Welch Inc	2121 Four Corners Rd NE PO Box 389	Waukon	Allamakee	IA	52172	43.29442	-91.44902
Smith Fertilizer and Grain	1605 South 24th Street	Centerville	Appanoose	IA	52544	40.719446	-92.858554
AGRILAND FS INC.-Moravia	802 West North Street	Moravia	Appanoose	IA	52571	40.8915181	-92.8257159
Moravia Propane Terminal	813 W North St	Moravia	Appanoose	IA	52571	40.893256	-92.825830
Herbers Seed NH3	1782 190th St	Audubon	Audubon	IA	50025	41.730150	-94.942163
Brayton, IA 6084	504 Clinton Street	Brayton	Audubon	IA	50042	41.545549	-94.921535
Landus Cooperative - Exira	103 West Washington	Exira	Audubon	IA	50076	41.592785	-94.889320
AGRILAND FS INC. AUDUBON	1914 220TH Street	Hamlin	Audubon	IA	50117	41.688849	-94.915644
Heartland Coop- Belle Plaine	West 8th Street	Belle Plaine	Benton	IA	52208	41.891667	-92.287500
Linn Co-op - Blainstown	7628 21st Ave.	Blainstown	Benton	IA	52209	41.916989	-92.083958
Linn Cooperative Oil Co.-Newhall Plant	2851 71st St	Newhall	Benton	IA	52315	41.993744	-91.940923
New Century FS - Van Horne	806 1st Avenue	Van Horne	Benton	IA	52346	42.00650	-92.09563
New Century FS Vinton South	1901 West 13th St	Vinton	Benton	IA	52349	42.16045	-92.04668
Tama-Benton Cooperative - Vinton	711 South "K" Ave.	Vinton	Benton	IA	52349	42.164167	-92.041111
Target FDC T3895	2115 Technology Parkway	Cedar Falls	Black Hawk	IA	50613	42.477577	-92.472479

**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
AgVantage FS - Dewar - AA	5901 1st St.	Dewar	Black Hawk	IA	50623	42.313418	-92.131988
AgVantage FS - Hudson	1144 Hwy. 63 North	Hudson	Black Hawk	IA	50643	42.416035	-92.447809
Heartland Co-op - Voorhies	440 Main - Voorhies	Hudson	Black Hawk	IA	50643	42.334759	-92.483507
La Porte City, IA 2601	909 Highway 218 North	La Porte City	Black Hawk	IA	50651	42.322000	-92.199295
New Century FS - La Porte City	3434 East Eagle Road	La Porte City	Black Hawk	IA	50651	42.340833	-92.289444
Conagra Brand - Waterloo	2701 Midport Blvd	Waterloo	Black Hawk	IA	50703	42.544588	-92.390776
Crystal Distribution Services, Inc.	1442 Sycamore Street	Waterloo	Black Hawk	IA	50703	42.492778	-92.324165
Hydrite Chemical Co. - Waterloo	2815 WCF&N Drive	Waterloo	Black Hawk	IA	50703	42.537778	-92.368889
Tyson Fresh Meats, Inc. - Waterloo, Ia.	501 North Elk Run Road	Waterloo	Black Hawk	IA	50703	42.508611	-92.261389
Boone, IA 446	1164 S Avenue	Boone	Boone	IA	50036	42.038815	-93.814078
Fareway Stores, Inc.	2300 Industrial Park Road	Boone	Boone	IA	50036	42.061778	-93.845611
Landus Cooperative - Boone	1095 T Avenue	Boone	Boone	IA	50036	42.051180	-93.801640
Van Diest Supply Company	1294 S Avenue	Boone	Boone	IA	50036	42.024139	-93.815028
Heartland Co-op Luther	411 Luther Street	Luther	Boone	IA	50152	41.968060	-93.822280
Enterprise Ogden Terminal & Storage	277 220th Street	Ogden	Boone	IA	50212	42.035656	-94.111180
Ogden, IA 434 Satellite	1186 G Avenue	Ogden	Boone	IA	50212	42.037752	-94.046330
Landus Cooperative - Perry	2229 Clover Avenue	Perry	Boone	IA	50220	41.886983	-94.118765
AgVantage FS - Janesville	513 7th Street	Janesville	Bremer	IA	50647	42.643333	-92.458611
Landus Cooperative - Plainfield	1466 Badger Avenue	Plainfield	Bremer	IA	50666	42.8378066	-92.535193
Farmers Cooperative Company-Readlyn	335 West 1st Street	Readlyn	Bremer	IA	50668	42.700262	-92.229657
AgVantage FS - Sumner	1429 Whitetail Ave.	Sumner	Bremer	IA	50674	42.843194	-92.120107
Tripoli, IA 2661 Satellite	1854 Piedmont	Tripoli	Bremer	IA	50676	42.778592	-92.258879
FWC - Bremer	1813 190th Street	Waverly	Bremer	IA	50677	42.774023	-92.392225
Aurora Elevator, Inc.	415 Woodruff Street	Aurora	Buchanan	IA	50607	42.620081	-91.728925
AgVantage FS - Hazleton - AA	1877 110th St	Hazleton	Buchanan	IA	50641	42.630088	-91.907497
Wapsie Valley Creamery	300 10th St NE	Independence	Buchanan	IA	50644	42.477453	-91.8907
AgVantage FS- Jesup	2326 Benson Shady Grove Avenue	Jesup	Buchanan	IA	50648	42.453138	-92.054074
Viafield - Lamont	3196 130th Street	Lamont	Buchanan	IA	50650	42.599950	-91.649212
IAS - Masonville	1760 Washburn Ave	Masonville	Buchanan	IA	50654	42.532788	-91.646310
F. J. Krob & Company - Rowley	95 Rowley Street	Rowley	Buchanan	IA	52329	42.371977	-91.840822

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
AgVantage FS - Quasqueton - AA	2595 Racine Ave	Winthrop	Buchanan	IA	50682	42.414981	-91.751656
AgState - Albert City	4973 230th Ave.	Albert City	Buena Vista	IA	50510	42.796352	-94.952696
Valero Renewable Fuels Albert City	2356 510th Street	Albert City	Buena Vista	IA	50510	42.775400	-94.941900
AgState- Alta	513 570th Ave.	Alta	Buena Vista	IA	51002	42.69175	-95.30685
Ag State - Linn Grove NH3	881 435th Street	Linn Grove	Buena Vista	IA	51033	42.887910	-95.235021
Ag State-Marathon NH3	210 Miliadiades Street	Marathon	Buena Vista	IA	50565	42.858637	-94.978479
Rembrandt	1419 480th St.	Rembrandt	Buena Vista	IA	50576	42.823804	-95.128366
The Hillshire Brands Company	315 Vilas Road	Storm Lake	Buena Vista	IA	50588	42.639448	-95.184336
Tyson Fresh Meats, Inc. - Storm Lake, Ia.	1009 Richland Street	Storm Lake	Buena Vista	IA	50588	42.640000	-95.187500
AgVantage FS - Allison	20902 Hwy 3 West	Allison	Butler	IA	50602	42.744167	-92.810556
AgVantage FS - Aplington	17995 Hwy 57	Aplington	Butler	IA	50604	42.583889	-92.870000
Clarksville, IA 2662 Satellite	29940 160th Street	Clarksville	Butler	IA	50619	42.817206	-92.635628
Innovative Ag Services - Packard	13625 Packard Ave	Clarksville	Butler	IA	50619	42.853724	-92.734621
Landus Cooperative - Kesley	15751 265th St.	Kesley	Butler	IA	50649	42.662510	-92.912670
Landus Cooperative - New Hartford	705 Packwaukee St	New Hartford	Butler	IA	50660	42.564073	-92.619037
Huisinga Fertilizer L.L.C.	19481 310th st.	Parkersburg	Butler	IA	50665	42.600000	-92.833444
Sinclair Elevator Co LLC	32746 Sinclair Avenue	Parkersburg	Butler	IA	50665	42.576030	-92.729220
Farmers Cooperative Company-Shell Rock	727 South Cherry Street	Shell Rock	Butler	IA	50670	42.706058	-92.588467
Landus Cooperative - Farnhamville	105 Garfield Av	Farnhamville	Calhoun	IA	50538	42.274849	-94.398804
Knierim, IA 6	116 1st Avenue East	Knierim	Calhoun	IA	50552	42.451849	-94.461992
Landus Cooperative - Lake City	621 East 6th St.	Lake City	Calhoun	IA	51449	42.260647	-94.727203
Lohrville, IA 5	1216 3rd Street	Lohrville	Calhoun	IA	51453	42.267824	-94.536633
Manson Ag Services, Inc.	1677 Tabor Avenue	Manson	Calhoun	IA	50563	42.548094	-94.541928
Pro Cooperative Inc.-Manson	1303 9th Avenue	Manson	Calhoun	IA	50563	42.527650	-94.535640
Pomeroy, IA 12 Satellite	602 East Harrison	Pomeroy	Calhoun	IA	50575	42.544220	-94.675042
Pomeroy, IA 13	1767 Knoke Drive	Pomeroy	Calhoun	IA	50575	42.519083	-94.764806
Landus Cooperative - Rockwell City	2494 Marshall Ave.	Rockwell City	Calhoun	IA	50579	42.402766	-94.668798
Rockwell City, IA 7	2764 320th Street	Rockwell City	Calhoun	IA	50579	42.325300	-94.578918
Landus Cooperative - Somers	411 6th Avenue	Somers	Calhoun	IA	50586	42.378143	-94.432195
FAC Arcadia	12543 190th Street	Arcadia	Carroll	IA	51430	42.079436	-95.038106

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Schroeder Ag LLC	19793 Delta Ave	Arcadia	Carroll	IA	51430	42.067630	-95.036020
Breda, IA 6011	112 Granite Avenue	Breda	Carroll	IA	51436	42.179510	-94.973322
Smithfield Packaged Meats Corp. - Carroll, IA	401 North Grant Road	Carroll	Carroll	IA	51401	42.061872	-94.860442
Wiederin, Inc.	14374 Mahogany Ave.	Carroll	Carroll	IA	51401	42.148101	-94.857498
Landus Cooperative - Dedham	510 North 4th Avenue	Dedham	Carroll	IA	51440	41.915494	-94.818787
Glidden, IA 24	135 East First Street	Glidden	Carroll	IA	51443	42.054901	-94.725159
Lanesboro, IA 26	104 Main Street	Lanesboro	Carroll	IA	51451	42.184918	-94.687904
Lidderdale, IA 25	26479 160th Street	Lidderdale	Carroll	IA	51452	42.125573	-94.775651
Aspinwall Cooperative Company - Manning NH3	12472 - 311th St. (911)	Manning	Carroll	IA	51455	41.905543	-95.044532
Landus Cooperative - Ralston	406 1 st Street	Ralston	Carroll	IA	51459	42.041611	-94.639165
Landus Cooperative - Templeton	326 North Railway Street	Templeton	Carroll	IA	51463	41.921074	-94.942897
Elite Octane, LLC	60502 Glacier Rd	Atlantic	Cass	IA	50022	41.422653	-95.030026
Farm Service Coop-Atlantic	54464 Olive Street	Atlantic	Cass	IA	50022	41.440123	-95.000589
Landus Cooperative - Atlantic	60511 Glacier Rd.	Atlantic	Cass	IA	50022	41.417728	-95.030632
21st Century Coop - Cumberland	130 Main Street	Cumberland	Cass	IA	50843	41.270435	-94.869766
Agriland Fs INC. Griswold	54911 Troy Road	Griswold	Cass	IA	51535	41.2269456	-95.1411546
Steinbeck and Sons Inc.	69888 612th St.	Griswold	Cass	IA	51535	41.217869	-95.017561
River Valley Cooperative Sunbury NH3	2223 - 290th Street	(Sunbury) Wilton	Cedar	IA	52778	41.671111	-90.933333
River Valley Cooperative - Clarence NH3	1675 - 140th Street	Clarence	Cedar	IA	52216	41.887483	-91.043075
Twin State, Inc.- Durant	2206 Old Highway 6 West	Durant	Cedar	IA	52747	41.600709	-90.936609
AgVantage FS - Mechanicsville	301 E. Cherry	Mechanicsville	Cedar	IA	52306	41.902222	-91.254722
River Valley Cooperative Stanwood	1142 HWY 30	Stanwood	Cedar	IA	52337	41.887986	-91.14608
Cedar County Cooperative - Tipton	1201 Newton Avenue	Tipton	Cedar	IA	52772	41.771516	-91.098561
AgVantage FS - Downey	202 PeeDee Street	West Branch	Cedar	IA	52358	41.616944	-91.348611
Cedar County Cooperative - West Branch	1546 Baker Avenue	West Branch	Cedar	IA	52358	41.723523	-91.344265
AgVantage FS - Wilton	1830 290th Street	Wilton	Cedar	IA	52778	41.669362	-91.010467
Clear Lake Terminal	3114 Main Street	Clear Lake	Cerro Gordo	IA	50428	43.138040	-93.351936
Five Star Cooperative - Dougherty	150 North Main Street	Dougherty	Cerro Gordo	IA	50433	42.922677	-93.039736
Cargill Kitchen Solutions	1750 S. Benjamin Ave.	Mason City	Cerro Gordo	IA	50401	43.134995	-93.231240
Five Star Cooperative - Mason City	16682 (A) 245th Street	Mason City	Cerro Gordo	IA	50401	43.120786	-93.187501

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Golden Grain Energy, LLC	1822 43rd Street SW	Mason City	Cerro Gordo	IA	50401	43.115530	-93.229776
Helena Agri-Enterprises, LLC - Mason City, IA Fac	16725 245th Street	Mason City	Cerro Gordo	IA	50401	43.116430	-93.187306
North Iowa Coop - Portland North	16228 Thrush Avenue	Mason City	Cerro Gordo	IA	50401	43.130322	-93.125364
Smithfield Packaged Meats Corp. - Mason City, IA	1401 South Eisenhower Ave	Mason City	Cerro Gordo	IA	50401	43.139672	-93.257611
Mason City Terminal	12045 W State Street	Mason City (Emery)	Cerro Gordo	IA	50401	43.134892	-93.278471
New Coop - Meservey	2441 A Balsam Ave.	Meservey	Cerro Gordo	IA	50457	42.929486	-93.475647
North Iowa Cooperative Elevator-Plymouth	19683 325th Street	Plymouth	Cerro Gordo	IA	50464	43.234189	-93.130579
North Iowa Cooperative Elevator-Swaledale	310 5th Street	Swaledale	Cerro Gordo	IA	50477	42.975205	-93.314928
AgVantage FS - Thornton Plant	206 Ash Street E	Thornton	Cerro Gordo	IA	50479	42.945278	-93.375556
Ag State - Aurelia NH3	100 S. Main	Aurelia	Cherokee	IA	51005	42.707369	-95.434362
Ag State - Cherokee	530 River Road	Cherokee	Cherokee	IA	51012	42.745278	-95.558611
Lopez Foods Cherokee	1300 South Lake Street	Cherokee	Cherokee	IA	51012	42.730219	-95.559004
Ag State - Cleghorn NH3	113 South Lewis Avenue	Cleghorn	Cherokee	IA	51014	42.810516	-95.710149
Ag State- Marcus NH3	200 North Highway 143	Marcus	Cherokee	IA	51035	42.828092	-95.800629
Little Sioux Corn Processors, LLC	4808 F Street	Marcus	Cherokee	IA	51035	42.822	-95.7667
Washta, IA 108	203 Main Street	Washta	Cherokee	IA	51061	42.572832	-95.717178
Farmers Coop Win - Fredericksburg	110 North Jefferson	Fredericksburg	Chickasaw	IA	50630	42.967270	-92.203366
Five Star Cooperative - Lawler	1890 Ridgeway Blvd.	Lawler	Chickasaw	IA	52154	43.084176	-92.165017
Homeland Energy Solutions, LLC	2779 IA Hwy 24	Lawler	Chickasaw	IA	52154	43.070207	-92.205000
Five Star Cooperative - Nashua	185 Mills Street	Nashua	Chickasaw	IA	50658	42.964113	-92.531380
AgVantage FS - New Hampton West	1930 Linn Drive	New Hampton	Chickasaw	IA	50659	43.079184	-92.314559
Five Star Cooperative - New Hampton	1949 North Linn Ave.	New Hampton	Chickasaw	IA	50659	43.074191	-92.318893
New Hampton Terminal	1690 Lasalle Avenue	New Hampton	Chickasaw	IA	50659	43.112500	-92.315556
Farmers Mill Inc.	3324 - 100th Street	Protivin	Chickasaw	IA	52163	43.212204	-92.094699
AGRILAND FS, Inc. (Murray)	7th & Troy	Murray	Clarke	IA	50174	41.0438948	-93.9447127
Osceola Food, LLC	1027 Warren Ave.	Osceola	Clarke	IA	50213	41.024444	-93.786389
Osceola Water Plant	2320 W Clay Street	Osceola	Clarke	IA	50213	41.041477	-93.806009
United Farmers Coop - Osceola	221 Townline Road	Osceola	Clarke	IA	50213	41.048221	-93.761794
Sport Wade, Inc	2769 HWY 69	Weldon	Clarke	IA	50264	40.899722	-93.767222

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New Coop - Dickens	202 First Street	Dickens	Clay	IA	51333	43.130805	-95.025306
Ag State - Peterson NH3	100 Front Street	Peterson	Clay	IA	51047	42.916121	-95.342871
CF Industries Dist. Facilities, LLC - Spencer	3425 180th Ave.	Spencer	Clay	IA	51301	43.154167	-95.233889
Quality Refrigerated Services	225 West 21st Street	Spencer	Clay	IA	51301	43.159579	-95.1493090
Ag State - Webb NH3	305 - 3rd Street	Webb	Clay	IA	51366	42.947171	-95.009204
SilverEdge Co-op	39999 Hilton Road	Edgewood	Clayton	IA	52042	42.648170	-91.368740
Innovative Ag Services - Elkader	24628 Highway 13 North	Elkader	Clayton	IA	52043	42.868518	-91.381066
Three Rivers Fs Company Elkader Nh3	24544 HIWAY 13 N	Elkader	Clayton	IA	52043	42.869770	-91.383315
Garnavillo, IA 483 Satellite	23732 Highway 52	Garnavillo	Clayton	IA	52049	42.882027	-91.242599
NORTHERN AG SERVICE, INC.	29953 141st St	Mcgregor	Clayton	IA	52157	43.020833	-91.209444
Three Rivers Fs Company Giard Nh3	25278 HIWAY 18	Mcgregor	Clayton	IA	52157	43.004444	-91.303752
Innovative Ag Services - Monona	20113 115th St	Monona	Clayton	IA	52159	43.061678	-91.407867
SilverEdge Cooperative	36919 St. Sebald Road	Strawberry Point	Clayton	IA	52076	42.689167	-91.568611
Hawkins Camanche, IA	2619 Camanche Industrial Park Drive	Camanche	Clinton	IA	52730	41.806309	-90.239103
ADM Corn Processing	1251 Beaver Channel Parkway	Clinton	Clinton	IA	52732	41.820611	-90.209611
Clinton, IA 2696	1571 Main Avenue	Clinton	Clinton	IA	52732	41.873621	-90.218711
Equistar Chemicals, LP Clinton Plant	3400 Anamosa Road	Clinton	Clinton	IA	52732	41.806904	-90.296931
Sethness Products Company	1347 Beaver Channel Parkway	Clinton	Clinton	IA	52732	41.817275	-90.216711
AgVantage FS - DEWITT	625 1ST ST.	Dewitt	Clinton	IA	52742	41.815278	-90.540000
River Valley Cooperative Calamus NH3	2417 190th Avenue	Grand Mound	Clinton	IA	52751	41.826197	-90.722083
River Valley Coop - Lost Nation NH3	1475 Highway 136	Lost Nation	Clinton	IA	52254	41.970833	-90.808333
AgVantage FS - LOW MOOR	101 3RD ST	Low Moor	Clinton	IA	52757	41.802500	-90.355833
Low Moor, IA 2851 Satellite	2590 380th Street	Low Moor	Clinton	IA	52757	41.803456	-90.359327
AgVantage FS - WHEATLAND	1063 HWY 30 W.	Wheatland	Clinton	IA	52777	41.840000	-90.886111
Charter Oak, IA 1035 Satellite	698 Railroad Avenue	Charker Oak	Crawford	IA	51439	42.069410	-95.582925
Continental Carbonic-Denison	2510 WESTCOTT RD	Denison	Crawford	IA	51442	42.169454	-95.395694
Farm Service Coop-Denison	1023 5th Avenue South	Denison	Crawford	IA	51442	42.010696	-95.359114
Lineage Logistics - Denison	601 Industrial Drive	Denison	Crawford	IA	51442	42.022829	-95.362818
MacroSource, LLC - Denison	401 Boyer Valley Rd.	Denison	Crawford	IA	51442	42.007222	-95.369444
Monogram Quality Foods	710 Highway 59 South	Denison	Crawford	IA	51442	42.00865	-95.36466



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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Smithfield Fresh Meats Corp. - Denison, IA	800 Industrial Drive	Denison	Crawford	IA	51442	42.027778	-95.359718
The Andersons Marathon Holding LLC	2404 West Highway 30	Denison	Crawford	IA	51442	41.992100	-95.394200
Cogdill Farm Supply, INC. (Dow City)	104 West Fulton	Dow City	Crawford	IA	51528	41.931968	-95.495094
Kiron Plant	2651 D Avenue	Kiron	Crawford	IA	51448	42.167108	-95.353464
Kiron, IA 6018 Satellite	10 Eureka Street	Kiron	Crawford	IA	51448	42.193762	-95.325054
Farm Service Coop-Schleswig	2150 D. Ave.	Schleswig	Crawford	IA	51461	42.168025	-95.449453
Farmers Coop Elev. Co. - Schleswig	313 Cedar Street	Schleswig	Crawford	IA	51461	42.164722	-95.435556
Farmers Coop. Elev. Co. - Westside	1000 Highway 30 West	Westside	Crawford	IA	51467	42.076445	-95.110602
Heartland Co-op Booneville	29927-360th Street	Booneville	Dallas	IA	50038	41.521506	-93.898486
Bouton, IA	13773 N Avenue	Bouton	Dallas	IA	50039	41.837387	-94.030508
Heartland Co-op Dallas Center	1107 Sycamore	Dallas Center	Dallas	IA	50063	41.682580	-93.958060
Heartland Co-op Minburn	2263 187th Road	Minburn	Dallas	IA	50167	41.763053	-94.035835
Landus Cooperative - Panther	23926 H Avenue	Minburn	Dallas	IA	50167	41.689426	-94.143616
AGRILAND FS, Inc. - Dallas County	23986 A Ave	Panora	Dallas	IA	50216	41.6888463	-94.2795071
Tyson Fresh Meats, Inc. - Perry, Ia.	13500 I Court	Perry	Dallas	IA	50220	41.841944	-94.126111
Heartland Co-op Redfield East	1540 302nd Street	Redfield	Dallas	IA	50233	41.595918	-94.172389
Heartland Co-op Redfield West	1535 Highway 6	Redfield	Dallas	IA	50233	41.595694	-94.173444
Heartland Co-op Waukee	529 Ashworth	Waukee	Dallas	IA	50263	41.611842	-93.883804
Heartland Co-op - Woodward	110 Railroad	Woodward	Dallas	IA	50276	41.859945	-93.914187
AGRILAND FS INC.-Bloomfield	22686 Hwy 2	Bloomfield	Davis	IA	52537	40.7332924	-92.3907216
Bloomfield, IA 1339	906 Karr Avenue	Bloomfield	Davis	IA	52537	40.744356	-92.430017
Bloomfield, IA 2422 Satellite	31425 215th Street	Bloomfield	Davis	IA	52537	40.747974	-92.237589
UFC - Lamoni	1260 West Main	Lamoni	Decatur	IA	50140	40.623940	-93.955385
MFA Agri Service Leon	18865 US Hwy. 69	Leon	Decatur	IA	50144	40.770681	-93.748423
SilverEdge Cooperative, Delhi Location	2416 St. Hwy. 38	Delhi	Delaware	IA	52223	42.425722	-91.334250
Big River United Energy, LLC	3294 Vine Road	Dyersville	Delaware	IA	52040	42.486944	-91.163611
Dyersville, IA 6092	2327 Commerce Court	Dyersville	Delaware	IA	52040	42.466291	-91.150783
Hopkinton, IA 6027	3105 Highway 38 South	Hopkinton	Delaware	IA	52237	42.338282	-91.239786
Three Rivers Fs Company Manchester NH3	1000 S 5th St / 1000 S 3rd St	Manchester	Delaware	IA	52057	42.474140	-91.463265
River Valley Cooperative - Ryan	101 Union St.	Ryan	Delaware	IA	52330	42.347555	-91.480919

**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Water Treatment Plant	3000 Des Moines Avenue	Burlington	Des Moines	IA	52601	40.842663	-91.108012
Mediapolis, IA 6036 Satellite	23054 Highway 61	Mediapolis	Des Moines	IA	52637	41.014872	-91.169631
American Ordnance LLC	17575 DMC Highway 79	Middletown	Des Moines	IA	52638	40.826385	-91.266542
Mount Union, IA 1335	22641 220th Avenue	Mount Union	Des Moines	IA	52644	41.009600	-91.353568
River Valley cooperative HWY 99	6076 Mediapolis Road	Oakville	Des Moines	IA	52646	41.018953	-91.047218
River Valley Cooperative - Sperry	11723 Sperry Road	Sperry	Des Moines	IA	52650	40.955867	-91.153978
Big River Resources West Burlington, LLC	15210 103rd Street	West Burlington	Des Moines	IA	52655	40.829108	-91.225936
Chem Gro of Houghton, Inc. - Yarmouth Facility	23450 205th Ave Hwy X23	Yarmouth	Des Moines	IA	52660	41.023611	-91.321944
Green Plains Superior LLC	1495 320th ave	Estherville	Dickinson	IA	51334	43.431	-94.961000
New Coop - Superior	603 Burlington Ave	Superior	Dickinson	IA	51363	43.432273	-94.948022
Innovative Ag Services - Cascade	1705 1st Avenue E	Cascade	Dubuque	IA	52033	42.309115	-90.990476
Prairie Farms-Dubuque	3510 Central Ave.	Dubuque	Dubuque	IA	52001	42.529694	-90.684389
Progressive Processing, LLC	1205 Chavenelle Court	Dubuque	Dubuque	IA	52002	42.4878375	-90.765276
Innovative Ag Services - Farley	800 Jamesmeier Road	Farley	Dubuque	IA	52046	42.449852	-91.023004
Three Rivers Fs Company Holy Cross Nh3	20340 HOLY CROSS RD.	Holy Cross	Dubuque	IA	52053	42.592535	-90.985619
Three Rivers Fs Company Centralia Nh3	18179 OLDE HIWAY RD	Peosta	Dubuque	IA	52068	42.467230	-90.843993
Worthington, IA 492 Satellite	29294 East Worthington Road	Worthington	Dubuque	IA	52078	42.396518	-91.058954
Enterprise Dubuque Terminal & Storage	10708 Higginsport Road	Zwingle	Dubuque	IA	52709	42.338090	-90.698230
StateLine Cooperative - Armstrong Facility	5670 Highway 9East	Armstrong	Emmet	IA	50514	43.391083	-94.467278
StateLine Cooperative-Maple Hill	1746 500TH Avenue	Armstrong	Emmet	IA	50514	43.393062	-94.599363
Estherville Foods, Inc.	105 North Fourth Street	Estherville	Emmet	IA	51334	43.403833	-94.840278
StateLine Cooperative - Ringsted Facility	1 East 240th Street	Ringsted	Emmet	IA	50578	43.299395	-94.511941
Viafield -ARLINGTON	291 South Main	Arlington	Fayette	IA	50606	42.743386	-91.661827
Viafield - Elgin	1245 Otter Creek Road	Elgin	Fayette	IA	52141	42.952524	-91.645636
AgVantage FS - Hawkeye-AA	20836 R Ave	Hawkeye	Fayette	IA	52147	42.932500	-91.942778
Farmers Win Coop - Hawkeye	21622 Rose Road	Hawkeye	Fayette	IA	52147	42.944642	-91.954155
AgVantage FS - Maynard - AA	255 5th Street N.	Maynard	Fayette	IA	50655	42.775833	-91.883889
Innovative Ag Services - Oran	24701 Oran St	Oran	Fayette	IA	50664	42.700030	-92.070641
Viafield - Randalia	15081 "O" Avenue	Randalia	Fayette	IA	52164	42.848279	-91.866336
FWC - Waucoma	211 Riverview Drive	Waucoma	Fayette	IA	52171	43.055482	-92.037278

**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
AgVantage FS - West Union - AA	300 West Franklin St	West Union	Fayette	IA	52175	42.950837	-91.816296
West Union, IA 1298	105 Armour Street	West Union	Fayette	IA	52175	42.953274	-91.805332
AgVantage FS - Charles City	2131 Old Highway Road	Charles City	Floyd	IA	50616	43.047742	-92.667162
Charles City, IA	2521 7 Mile Road	Charles City	Floyd	IA	50616	43.060574	-92.728158
Valero Renewable Fuels Company LLC - Charles City	1787 Quarry Road	Charles City	Floyd	IA	50616	43.094028	-92.744028
Landus Cooperative - Greene	2081 Floydline St	Greene	Floyd	IA	50636	42.908032	-92.812540
Viafield - Marble Rock	533 Bradford St	Marble Rock	Floyd	IA	50653	42.966713	-92.864476
AgVantage FS - Nora Springs	1270 150th Street	Nora Springs	Floyd	IA	50458	43.140227	-92.972145
Rockford, IA Satellite	2047 Red Ball Road	Rockford	Floyd	IA	50468	43.056575	-92.959256
Viafield - Rudd	51 E. Floyd Street	Rudd	Floyd	IA	50471	43.125740	-92.895228
Innovative Ag Services - Faulkner	410 Faulkner Lane	Ackley	Franklin	IA	50601	42.612863	-93.084349
Landus Cooperative - Ackley	302 North Franklin Avenue	Ackley	Franklin	IA	50601	42.558778	-93.057659
AgVantage FS - Alexander Fert Plant	250 190th Street	Alexander	Franklin	IA	50420	42.803963	-93.468036
Landus Cooperative - Bradford	1349 75th Street	Bradford	Franklin	IA	50041	42.629940	-93.252314
AgVantage FS - Coulter Wagon Park	20 Grant Street	Coulter	Franklin	IA	50431	42.738002	-93.364542
Dows, IA 31	304 Ellsworth	Dows	Franklin	IA	50071	42.655797	-93.497569
AgVantage FS - Hampton Wagon Park	1327 Olive Ave.	Hampton	Franklin	IA	50441	42.735656	-93.220486
Landus Cooperative - Hampton	1316 Olive Avenue	Hampton	Franklin	IA	50441	42.732810	-93.222382
Twin State, Inc. - Hampton	1455 140th Street	Hampton	Franklin	IA	50441	42.729147	-93.230749
Landus Cooperative - Latimer	852 170th Street	Latimer	Franklin	IA	50452	42.775105	-93.350487
Rowan, IA 30	1389 Wright Avenue	Rowan	Franklin	IA	50470	42.743300	-93.495930
AgVantage FS- Chapin	2036 Olive Ave.	Sheffield	Franklin	IA	50475	42.840242	-93.226631
United Farmers Cooperative - Hamburg	3151 Washington	Hamburg	Fremont	IA	51640	40.592257	-95.659373
Percival, IA 6046 Satellite	1975 206th Street	Percival	Fremont	IA	51648	40.750879	-95.808854
Heartland Co-op Randolph	109 Depot Street	Randolph	Fremont	IA	51649	40.872250	-95.564861
Green Plains Shenandoah, LLC.	4124 Airport Road	Shenandoah	Fremont	IA	51601	40.757040	-95.399770
Helena Agri-Enterprises, LLC - Shenandoah, IA	4197 175th St	Shenandoah	Fremont	IA	51601	40.794083	-95.385925
Heartland Co-op Sidney	1410 Filmore Street	Sidney	Fremont	IA	51652	40.748798	-95.629679
Landus Cooperative - Churdan	302 Sand St.	Churdan	Greene	IA	50050	42.155082	-94.480809

**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Jefferson, IA 27	2272 Neola Avenue	Jefferson	Greene	IA	50129	41.895760	-94.367891
Landus Cooperative - Farlin	1407 190th Street	Jefferson	Greene	IA	50129	42.077183	-94.376778
Landus Cooperative - Paton	587 U Ave	Paton	Greene	IA	50217	42.139301	-94.241568
New Century FS - Beaman	18935 330th Street	Beaman	Grundy	IA	50609	42.224963	-92.845999
Conrad, IA 1410	16950 330th Street	Conrad	Grundy	IA	50621	42.223455	-92.886626
New Century FS - Whitten	14314 310th Street	Conrad	Grundy	IA	50621	42.251454	-92.93779
Landus Cooperative - Dike	15505 U Avenue	Dike	Grundy	IA	50624	42.476941	-92.632970
Innovative Ag Services - Hwy 175 Eldora	23954 E Ave	Eldora	Grundy	IA	50627	42.354311	-92.942090
AgVantage FS - Grundy Center	1001 A Ave.	Grundy Center	Grundy	IA	50638	42.369536	-92.776401
Heartland Coop- Holland	203 Market Street	Holland	Grundy	IA	50642	42.398833	-92.800556
Heartland Coop- Reinbeck	107 N. Pioneer Road	Reinbeck	Grundy	IA	50669	42.327500	-92.593333
Wellsburg, IA 2407	107 North Washington Street	Wellsburg	Grundy	IA	50680	42.438907	-92.931868
Landus Cooperative - Bayard	1080 Highway 25	Bayard	Guthrie	IA	50029	41.852605	-94.549196
Landus Cooperative - Nelson	2197 Chestnut Road	Guthrie Center	Guthrie	IA	50115	41.689356	-94.726001
Landus Cooperative - Yale	1209 North St	Yale	Guthrie	IA	50277	41.771390	-94.351648
Blairsburg, IA 22	501 Lake Street	Blairsburg	Hamilton	IA	50034	42.481490	-93.640568
Blairsburg, IA Satellite	2579 220th Street	Blairsburg	Hamilton	IA	50034	42.472245	-93.658499
Van Diest Supply Company	2141 Poplar Grove Avenue	Blairsburg	Hamilton	IA	50034	42.479444	-93.677222
Innovative Ag Services - Ellsworth	829 Highway 175	Ellsworth	Hamilton	IA	50075	42.310157	-93.575978
Heartland Coop-Jewell	First and Lyon Street	Jewell	Hamilton	IA	50130	42.311530	-93.643080
POET Biorefining - Jewell	2601 320th Street	Jewell	Hamilton	IA	50130	42.329658	-93.664014
Heartland Coop-Randall	305 First Street	Randall	Hamilton	IA	50231	42.237530	-93.604420
Van Diest Supply Company	3514 Briggs Woods Road	Stanhope	Hamilton	IA	50246	42.284444	-93.795000
United Cooperative - Stratford	719 Commercial Street	Stratford	Hamilton	IA	50249	42.26964	-93.924439
United Cooperatiave - Stonega	2159 Stonega Avenue	Webster City	Hamilton	IA	50595	42.476615	-93.713036
United Cooperative - Highview	1324 220th Street	Webster City	Hamilton	IA	50595	42.473076	-93.909037
Van Diest Supply Company	1434 220th ST.	Webster City	Hamilton	IA	50595	42.470000	-93.890000
Innovative Ag Services - Williams West	3131 210th St	Williams	Hamilton	IA	50271	42.485998	-93.552361
Landus Cooperative - Britt	2290 Grant Avenue	Britt	Hancock	IA	50423	43.096336	-93.844330
MG Waldbaum - Britt, IA	1260 Highway 18	Britt	Hancock	IA	50423	43.103135	-93.740690

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
New Coop - Britt	107 5th Street NW	Britt	Hancock	IA	50423	43.100104	-93.804083
Gold-Eagle Cooperative-Corwith	303 NE Main Street	Corwith	Hancock	IA	50430	42.993232	-93.954158
Forest City Distribution Center-3M Company	806 West Crystal Lake Road	Forest City	Hancock	IA	50436	43.246944	-93.646389
AgVantage FS - Garner	1880 Highway 18 West	Garner	Hancock	IA	50438	43.103975	-93.619979
CF Industries Dist. Facilities, LLC - Garner	Highway 18 East	Garner	Hancock	IA	50438	43.117500	-93.540000
Koch Fertilizer, LLC - Garner Terminal	2415 Vail Avenue	Garner	Hancock	IA	50438	43.112830	-93.557978
Gold-Eagle Cooperative - Kanawha	1040 North Main	Kanawha	Hancock	IA	50430	42.944218	-93.794160
New Coop - Klemme	North Railroad Street	Klemme	Hancock	IA	50449	43.008739	-93.603821
Gold-Eagle Cooperative-Woden	103 North Main	Woden	Hancock	IA	50484	43.234644	-93.910967
AgVantage FS - Ackley West	27354 Hwy 57	Ackley	Hardin	IA	50126	42.555643	-93.157154
Innovative Ag Services - Cleves	15871 Co Highway S56	Ackley	Hardin	IA	50601	42.474119	-93.049363
Landus Cooperative - Macy	11277 County Hwy S 55	Ackley	Hardin	IA	50601	42.539530	-93.145183
AgVantage FS - Alden	13730 Co. Hwy S27	Alden	Hardin	IA	50006	42.503314	-93.380021
Innovative Ag Services - Alden	13600 County Hwy S-27	Alden	Hardin	IA	50006	42.504426	-93.379383
Landus Cooperative - Buckeye	202 Prairie Avenue	Buckeye	Hardin	IA	50043	42.420526	-93.376257
AgVantage FS - Eldora	29234 Hwy 175 W.	Eldora	Hardin	IA	50627	42.359722	-93.133333
Innovative Ag Services - Garden City	31578 Hwy. S-27	Garden City	Hardin	IA	50102	42.244958	-93.394253
Innovative Ag Services - Hubbard	115 E. Oak St	Hubbard	Hardin	IA	50122	42.308359	-93.301375
Farmers Cooperative Elevator Company	109 Isabella Street	Radcliffe	Hardin	IA	50230	42.312068	-93.432247
Pine Lake Corn Processors, L.L.L.P.	33371 170th Street	Steamboat Rock	Hardin	IA	50672	42.457778	-93.055833
Innovative Ag Services - Union	302 East St.	Union	Hardin	IA	50258	42.251941	-93.060708
Dunlap, IA 6015	306 West Highway 37	Dunlap	Harrison	IA	51529	41.856559	-95.604144
Heartland Co-op Little Sioux	4313 Vine St.	Little Sioux	Harrison	IA	51545	41.803583	-96.044500
Agriland FS INC. Logan	404 SOUTH 3RD	Logan	Harrison	IA	51546	41.638889	-95.789167
Heartland Co-op Logan	2921 Highway 30	Logan	Harrison	IA	51546	41.660556	-95.746944
Agriland FS INC. Missouri Valley	1850 335TH ST.	Missouri Valley	Harrison	IA	51555	41.5200664	-95.945335
Heartland Co-op Missouri Valley	3299 Italy Ave.	Missouri Valley	Harrison	IA	51555	41.533306	-95.940722
Heartland Co-op Missouri Valley UWC	220 E. Lincoln Hwy	Missouri Valley	Harrison	IA	51555	41.555630	-95.882130
Heartland Co-op Modale	2695 Fowler Avenue	Modale	Harrison	IA	51556	41.619290	-95.993090
Heartland Co-op Mondamin	111 North Main Street	Mondamin	Harrison	IA	51557	41.711000	-96.024472

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
King Agri Sales	1410 Highway 127	Mondamin	Harrison	IA	51557	41.710556	-96.041110
Agriland FS, INC. - Woodbine	1792 Panora Ave	Woodbine	Harrison	IA	51579	41.7480	-95.7001
Chem Gro of Houghton Inc. - Hillsboro Facility	103 North Cedar	Hillsboro	Henry	IA	52630	40.836589	-91.710335
Lineage Logistics Mount Pleasant	2227 East Commerce Street	Mount Pleasant	Henry	IA	52641	40.972909	-91.521508
Thermal Corporation of America	1405 West Washington St.	Mount Pleasant	Henry	IA	52641	40.967222	-91.572778
Chem Gro of Houghton, Inc. - Mt. Union Facility	409 WEST RAILROAD	Mt Union	Henry	IA	52644	41.058889	-91.395833
Chem Gro of Houghton Inc. - Olds Facility	1212 Iowa Ave	Mt. Pleasant	Henry	IA	52641	41.134165	-91.565677
West Liberty Foods, Mount Pleasant	2225 East Commerce Drive	Mt. Pleasant	Henry	IA	52641	40.972380	-91.522580
Chem Gro of Houghton, Inc. - Salem Facility	2952 Franklin Avenue	Salem	Henry	IA	52649	40.878290	-91.621752
Chem Gro of Houghton, Inc. - Winfield Facility	602 South Locust Street	Winfield	Henry	IA	52659	41.122519	-91.438316
Innovative Ag Services - Elma	305 North Busti Ave	Elma	Howard	IA	50628	43.249459	-92.437265
A & K Feed & Grain Co. Inc.	14530 50th Street	Lime Springs	Howard	IA	52155	43.443564	-92.287089
AgVantage FS - Davis Corners	14287 Hwy 9	Lime Springs	Howard	IA	52155	43.371389	-92.292500
ART'S MILLING SERVICE, Inc.	326 100th Street East	Protivin	Howard	IA	52163	43.213020	-92.088610
Riceville, IA Satellite	1564 IA-9	Riceville	Howard	IA	50466	43.363377	-92.543207
Bode, IA 18	12 Humboldt Avenue	Bode	Humboldt	IA	50519	42.871929	-94.288996
PRO Cooperative Inc. - Bradgate	500 South Public Road	Bradgate	Humboldt	IA	50520	42.801092	-94.417532
Van Diest Supply Company	1237 270th St.	Gilmore City	Humboldt	IA	50541	42.661389	-94.395278
Gold-Eagle Cooperative-Hardy	105 West Railroad Street	Hardy	Humboldt	IA	50545	42.810556	-94.054167
Humboldt, IA 413 Satellite	2237 220th Street	Humboldt	Humboldt	IA	50548	42.732656	-94.200120
Liguria Foods Inc.	1515 N. 15th Street	Humboldt	Humboldt	IA	50548	42.73831	-94.22919
Gold-Eagle Cooperative-Livermore	314 8th Street	Livermore	Humboldt	IA	50558	42.866667	-94.190833
Lu Verne, IA 19	101 Peavey Drive	Lu Verne	Humboldt	IA	50560	42.905368	-94.088666
Farmers Cooperative Elevator / Ottosen	71 Brady Street	Ottosen	Humboldt	IA	50570	42.896689	-94.380869
PRO Cooperative Inc. - Pioneer	110 Main Street	Pioneer	Humboldt	IA	50541	42.652952	-94.393076
Gold-Eagle Cooperative-Renwick	207 South Smith Street	Renwick	Humboldt	IA	50572	42.826345	-93.981116
PRO Cooperative Inc. - Rutland	One First Street South	Rutland	Humboldt	IA	50582	42.760121	-94.290389
Gold-Eagle Cooperative-Thor	319 North Ann Street	Thor	Humboldt	IA	50591	42.691129	-94.052255
Quad County Corn Processors	6059 159th St.	Galva	Ida	IA	51020	42.477777	-95.414722
Reliant Holdings, LTD - Galva	1584 Market Avenue	Galva	Ida	IA	51020	42.477444	-95.415528



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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Rod's Fertilizer & Sales, Inc.	117 N. Main St.	Galva	Ida	IA	51020	42.50842	-95.41902
Rod's Fertilizer & Sales, Inc. (East Plant)	103 Buena Vista St	Galva	Ida	IA	51020	42.50999	-95.41367
AgState - Holstein	212 North Main Street	Holstein	Ida	IA	51025	42.491701	-95.543139
Ida Grove, IA 6016	5655 Highway 175	Ida Grove	Ida	IA	51445	42.348486	-95.507614
Whirlpool Corporation - Amana Division	2800 220th Trail	Amana	Iowa	IA	52204	41.79364	-91.89908
Heartland Co-op Conroy	445 "F" Street	Conroy	Iowa	IA	52220	41.727333	-92.001419
Heartland Coop- Marengo	2104 Highway 6 Trail	Marengo	Iowa	IA	52301	41.786767	-92.082920
Rohrer Brothers - Marengo	2285 Highway 6 Trail	Marengo	Iowa	IA	52301	41.791372	-92.047506
New Century FS - Millersburg	1633 Hwy F52 Trail	Millersburg	Iowa	IA	52308	41.582222	-92.175833
Rohrer Brothers, Inc. Victor NH3	415 First St.	Victor	Iowa	IA	52347	41.734636	-92.293600
New Centruy FS - Williamsburg	610 S Maplewood Ave.	Williamsburg	Iowa	IA	52361	41.654167	-91.997778
Innovative Ag Services - Andrew	312 S. Jefferson	Andrew	Jackson	IA	52030	42.148386	-90.595613
AgVantage FS - Otter Creek	22067 183rd Ave.	Lamotte	Jackson	IA	52054	42.225556	-90.680833
AgVantage FS - Maquoketa	20081 22ND ST	Maquoketa	Jackson	IA	52060	42.052222	-90.664722
Eberhart Farm Center, Inc. - Maquoketa Plant	1001 E. Maple St.	Maquoketa	Jackson	IA	52060	42.06442	-90.653257
AgVantage FS - Miles	48770 17th Street	Miles	Jackson	IA	52064	42.048333	-90.330833
Eberhart Farm Center, Inc. - Preston Plant	2386 418th Ave.	Preston	Jackson	IA	52069	42.05424	-90.410276
Preston, IA 495	406 East White	Preston	Jackson	IA	52069	42.055391	-90.388267
Key Cooperative Baxter	6253 N 95th Ave W	Baxter	Jasper	IA	50028	41.825556	-93.141389
Heartland Coop-Kellogg	10081 Hwy 6	Kellogg	Jasper	IA	50135	41.704722	-92.900000
Mingo, IA 445	206 Railroad	Mingo	Jasper	IA	50168	41.769185	-93.285335
Key Cooperative - Newton	1669 Hwy 14 North	Newton	Jasper	IA	50208	41.715011	-93.066987
New Century FS - Baxter	5616 HWY 14 E	Newton	Jasper	IA	50208	41.820000	-92.985000
New Century FS - Newton	253 Hwy S52N	Newton	Jasper	IA	50208	41.700833	-93.174167
Heartland Co-op Prairie City	9180 S. 80th Ave. West	Prairie City	Jasper	IA	50228	41.596111	-93.212222
Key Cooperative	504 6th Ave.	Sully	Jasper	IA	50251	41.57597	-92.845990
Vision Ag LLC - Batavia (Ash Ave)	2235 Ash Avenue	Batavia	Jefferson	IA	52533	40.983784	-92.168456
AGRILAND FS INC. - Fairfield	2901 West Grimes	Fairfield	Jefferson	IA	52556	41.0116774	-91.9973012
Fairfield, IA 1343	2091 115 Street	Fairfield	Jefferson	IA	52556	41.141793	-91.966294
Vision Ag LLC - Libertyville	201 Mill St.	Libertyville	Jefferson	IA	52567	40.960809	-92.055650

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Iowa City Terminal	207 Pipeline Road	Coralville	Johnson	IA	52241	41.67977	-91.568621
Eldon C. Stutsman, Inc. - Hills Facility	121 Lassie Street	Hills	Johnson	IA	52235	41.550163	-91.536422
Enterprise Iowa City Terminal	5354 American Legion Road	Iowa City	Johnson	IA	52240	41.616500	-91.410639
Iowa City Water Treatment Facility	80 Stephen Atkins Dr.	Iowa City	Johnson	IA	52240	41.688747	-91.545570
Lineage Logistics Iowa City	2710 HWY 6 East	Iowa City	Johnson	IA	52240	41.635158	-91.493703
The University of Iowa Water Plant	208 W. Burlington Street	Iowa City	Johnson	IA	52240	41.658611	-91.539444
AgVantage FS- Lone Tree wagon parking	110 W. Commercial St.	Lone Tree	Johnson	IA	52755	41.488958	-91.433146
AgVantage FS - OXFORD	1693 Lower Old Hwy 6	Oxford	Johnson	IA	52322	41.730000	-91.765000
River Valley Cooperative - Martelle NH3	24528 County Road E-45	Martelle	Jones	IA	52305	42.022331	-91.357180
Innovative Ag Services - Monticello	2010 S. Main Street	Monticello	Jones	IA	52310	42.212005	-91.190114
Wyoming, IA 485 Satellite	5999 75th Street	Wyoming	Jones	IA	52362	42.041404	-90.994863
Vision Ag LLC - Fremont	32035 120th Avenue	Fremont	Keokuk	IA	52561	41.190967	-92.373100
Gibson, IA 430	101 West Elevator	Gibson	Keokuk	IA	50104	41.480238	-92.395543
Gibson, IA 430 Satellite	101 East Elevator	Gibson	Keokuk	IA	50104	41.479125	-92.392640
AGRILAND FS INC. -Hedrick	30754 Hwy 149	Hedrick	Keokuk	IA	52563	41.2114816	-92.2125348
Hedrick, IA 1346 Satellite	33025 140th Avenue	Hedrick	Keokuk	IA	52563	41.176099	-92.334837
Vision Ag LLC - Hedrick	121 West 1st Street	Hedrick	Keokuk	IA	52563	41.170516	-92.310470
Keswick, IA 432	14303 Highway 22 South	Keswick	Keokuk	IA	50136	41.448392	-92.240932
North English, IA 1337 Satellite	11427 Highway 149	North English	Keokuk	IA	52316	41.490534	-92.094298
Vision Ag LLC - Richland	709 East Highway 78	Richland	Keokuk	IA	52585	41.178563	-91.989777
Vision Ag LLC - Sigourney	20709 255th Street	Sigourney	Keokuk	IA	52591	41.287028	-92.20506
AGRILAND FS INC.-Webster	14584 232nd Avenue	Webster	Keokuk	IA	52355	41.4446953	-92.1607638
Hormel Foods Corporation Algona Plant	1118 Highway 18 East	Algona	Kossuth	IA	50511	43.079722	-94.223056
New Coop - Algona	2106 140th Avenue	Algona	Kossuth	IA	50511	43.077749	-94.186660
StateLine Cooperative - North Burt Agronomy Facility	142 North Long Street	Bancroft	Kossuth	IA	50517	43.295780	-94.219504
StateLine Cooperative- South Burt	102 Walnut Street	Burt	Kossuth	IA	50522	43.196950	-94.217549
StateLine Cooperative - Fenton Facility	809 Maple Street	Fenton	Kossuth	IA	50539	43.221306	-94.428167
Irrington, IA 6017	121 East Street	Irrington	Kossuth	IA	50560	43.007578	-94.193775
StateLine Cooperative - Lakota Facility	1906 Highway 9	Lakota	Kossuth	IA	50451	43.384965	-94.075240



**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
StateLine Cooperative - Ledyard Facility	4403 150th Ave	Ledyard	Kossuth	IA	50556	43.407353	-94.169047
StateLine Cooperative-Lone Rock Facility	105 Main Street	Lone Rock	Kossuth	IA	50559	43.218475	-94.329037
Lu Verne, IA 426	109 Linn Street	Lu Verne	Kossuth	IA	50560	42.915887	-94.080921
StateLine Cooperative-Swea City Facility	402 Highway P-30	Swea City	Kossuth	IA	50451	43.386082	-94.308708
Gold-Eagle Cooperative-Titonka	2201 325th Street	Titonka	Kossuth	IA	50480	43.235377	-94.029053
Gold-Eagle Cooperative	402 Old Highway 18	Wesley	Kossuth	IA	50483	43.088889	-93.978056
New Coop - West Bend	18 135th Street	West Bend	Kossuth	IA	50597	42.957569	-94.440305
New Coop - Whittemore	502 Railroad Street	Whittemore	Kossuth	IA	50598	43.065262	-94.427152
Agrineed, Inc. Denmark	1514 303rd Avenue	Denmark	Lee	IA	52624	40.737500	-91.3270
Chem Gro of Houghton Inc. - Mt. Hamill Facility	1433 155th Ave	Donnellson	Lee	IA	52625	40.752841	-91.612388
Donnellson Elevator Co. Donnellson	224 Mill St.	Donnellson	Lee	IA	52625	40.644444	-91.559722
Donnellson Elevator Co. Mt. Hamill	1564 143rd St.	Donnellson	Lee	IA	52625	40.749850	-91.611500
West Central FS, Inc. Donnellson	1778 210th St	Donnellson	Lee	IA	52625	40.653115	-91.567518
Climax Molybdenum Company	2598 Highway 61	Fort Madison	Lee	IA	52627	40.582739	-91.422784
ConAgra Packaged Foods, LLC - Fort Madison, IA	2467 Henry Ladyn Drive	Fort Madison	Lee	IA	52627	40.576641	-91.437553
Merschman Fertilizer LLC	2351 Ortho Road	Fort Madison	Lee	IA	52627	40.616667	-91.383056
Ft. Madison Terminal	2673 240th Street	Ft. Madison	Lee	IA	52627	40.611100	-91.397700
Chem Gro of Houghton Inc. - Houghton Facility	504 Main Street	Houghton	Lee	IA	52631	40.783402	-91.609035
Roquette America, Inc. (Keokuk)	1003 S. 5th. Street	Keokuk	Lee	IA	52632	40.388532	-91.394735
Agrineed, Inc.	2490 300th Street	Montrose	Lee	IA	52639	40.525774	-91.433798
Arctic Glacier West Point	2389 Saint Paul Road	West Point	Lee	IA	52656	40.723598	-91.452598
Chem Gro of Houghton Inc. - West Point Facility	1280 240th Avenue	West Point	Lee	IA	52656	40.772774	-91.448476
Iowa Fertilizer Company	3550 180th Street	Wever	Lee	IA	52658	40.690000	-91.230000
AgVantage FS - ALBURNETT 8336	2686 Old QUAAS RD.	Alburnett	Linn	IA	52202	42.141667	-91.628056
Archer Daniels Midland Company Cedar Rapids	1350 Waconia Avenue, SW	Cedar Rapids	Linn	IA	52404	41.927207	-91.687616
Cargill, Inc.	1710 16th St., S.E.	Cedar Rapids	Linn	IA	52401	41.969279	-91.650166
Danisco US Inc.	1000 41st Ave Dr SW	Cedar Rapids	Linn	IA	52404	41.940000	-91.640389
Ellis Road NW Water Treatment Plant	7807 Ellis Road	Cedar Rapids	Linn	IA	52405	41.997039	-91.771894
General Mills, Inc. - Cedar Rapids	4800 Edgewood Road Southwest	Cedar Rapids	Linn	IA	52406	41.933333	-91.718056
Ingredion Incorporated Cedar Rapids Plant	1001 First Street SW	Cedar Rapids	Linn	IA	52404	41.968056	-91.667500

**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
J Avenue NE Water Treatment Plant	761 J Avenue NE	Cedar Rapids	Linn	IA	52402	42.000556	-91.676389
Quality Chef Foods Division of Kraft Heinz Company	4601 C Street SW	Cedar Rapids	Linn	IA	52404	41.932053	-91.636131
Red Star Yeast Company	950 60th Ave SW	Cedar Rapids	Linn	IA	52404	41.920000	-91.682222
Vantage Corn Processors LLC	1425 60th Ave. SW	Cedar Rapids	Linn	IA	52404	41.919868	-91.688140
Water Pollution Control Facility	7525 Bertram Road SE	Cedar Rapids	Linn	IA	52403	41.958278	-91.563583
Innovative Ag Services - Central City	450 South River Street	Central City	Linn	IA	52214	42.197761	-91.526660
Linn Coop - Central City	1914 Burnett Station Road	Central City	Linn	IA	52214	42.150380	-91.554010
K & B AG Supply, LLC	701 Williams Blvd	Fairfax	Linn	IA	52228	41.911479	-91.787095
Linn Cooperative Oil Co.	726 Dubuque Rd.	Springville	Linn	IA	52336	42.056711	-91.434749
Carson Grain Company	5301 Troy Mills Road	Walker	Linn	IA	52352	42.245841	-91.681100
Tyson Fresh Meats, Inc. Louisa Co.	Highway 70 North	Columbus Junction	Louisa	IA	52738	41.296667	-91.356944
AGRILAND FS INC. - Wyman	28465 Cty Rd G62	Crawfordsville	Louisa	IA	52621	41.1891806	-91.4750788
O'Toole Inc.	18602 County Rd. G 34	Letts	Louisa	IA	52754	41.329624	-91.272924
Farmer's Elevator & Exchange, Inc.	105 Hwy 61 North	Wapello	Louisa	IA	52653	41.179907	-91.196034
Hy-Vee Perishables Center	21591 490th Street	Chariton	Lucas	IA	50049	41.031501	-93.335486
UFC - CHARITON	49297 - 215th Avenue	Chariton	Lucas	IA	50049	41.033548	-93.337839
CFE - Lester	2215 Iowa Highway 9	Lester	Lyon	IA	51242	43.431427	-96.347336
Little Rock, IA	502 Section Line Road	Little Rock	Lyon	IA	51243	43.445933	-95.879323
NuStar Energy - Rock Rapids, IA	3025 Iowa 9 St.	Rock Rapids	Lyon	IA	51246	43.432714	-96.190639
Heartland Co-op - Earlham	1409 105th St.	Earlham	Madison	IA	50072	41.496944	-94.163611
United Farmers Cooperative - Macksburg Location	306 N. East St.	Macksburg	Madison	IA	50155	41.218311	-94.185990
Truro Grain - Purchased from Heartland Coop	100 South East Street	Truro	Madison	IA	50257	41.211944	-93.846947
AGRILAND FS, Inc (Winterset)	421 North 10th Street	Winterset	Madison	IA	50273	41.3375899	-94.0007739
BB&P Grain Handlers 2009	1843 Hwy. 169 North	Winterset	Madison	IA	50273	41.380254	-94.014311
Heartland Co-op Winterset	2110 Norwood Ave	Winterset	Madison	IA	50273	41.343458	-93.981191
Key Cooperative-Barnes City	525 Vine St	Barnes City	Mahaska	IA	50027	41.509486	-92.466621
Key Cooperative - New Sharon	1380 Hwy 63	New Sharon	Mahaska	IA	50207	41.453304	-92.646722
New Sharon, IA 1465	1034 Iowa - 146	New Sharon	Mahaska	IA	50207	41.505230	-92.650865
New Sharon, IA 6095 Satellite	1519 Highway 63	New Sharon	Mahaska	IA	50207	41.432361	-92.653524

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
AGRILAND FS INC..-Oskaloosa	2305 Highway 23	Oskaloosa	Mahaska	IA	52577	41.2799194	-92.6212696
Allied Gas & Chemical Company	1807 17th Ave. East	Oskaloosa	Mahaska	IA	52577	41.280649	-92.624042
Oskaloosa Food Products	546 9th Ave East	Oskaloosa	Mahaska	IA	52577	41.286810	-92.638080
Oskaloosa, IA 437 Satellite	3070 Independence Avenue	Oskaloosa	Mahaska	IA	52577	41.209274	-92.707308
Two Rivers Cooperative-Tracy	1004 265th Street	Tracy	Mahaska	IA	50256	41.269244	-92.866270
SFG - Columbia	2441 Highway 14	Columbia	Marion	IA	50057	41.171992	-93.178005
AGRILAND FS INC. -Knoxville	1166 Quaker Drive	Knoxville	Marion	IA	50138	41.2539000	-93.122118
Hormel Foods Corporation Knoxville Plant	209 N. Godfrey Lane	Knoxville	Marion	IA	50138	41.31804	-93.060720
SFG - Knoxville	1650 Quebec St.	Knoxville	Marion	IA	50113	41.246663	-93.031286
SFG - Melcher	126 Southeast Second Street	Melcher	Marion	IA	50163	41.222282	-93.239301
Two Rivers Cooperative - Otley	1691 Business Highway 163	Otley	Marion	IA	50214	41.455376	-93.027593
Chem-Tech (Neogen)	1006 Business Highway 5	Pleasantville	Marion	IA	50225	41.395556	-93.272222
Smith Fertilizer and Grain-Pleasantville	396 Harding Drive	Pleasantville	Marion	IA	50225	41.398366	-93.272957
New Century FS - Albion	1605 Meyer Ave.	Albion	Marshall	IA	50157	42.122500	-92.997222
Heartland Coop Pickering	3111 290th Street	Gilman	Marshall	IA	50106	41.937500	-92.816944
New Century FS - Green Mountain	502 Green Mountain Road	Green Mountain	Marshall	IA	50632	42.100806	-92.817278
JBS Marshalltown Pork Facility	402 N 10th Avenue	Marshalltown	Marshall	IA	50158	42.054417	-92.897944
Koch Fertilizer, LLC - Marshalltown Terminal	3046 Garwin Road	Marshalltown	Marshall	IA	50158	42.092836	-92.832585
Heartland Co-op Melbourne	2630 Hart Avenue	Melbourne	Marshall	IA	50162	41.978611	-93.096667
New Century FS - Melbourne	307 Railroad St	Melbourne	Marshall	IA	50162	41.945000	-93.100278
Edler-Eggers Fertilizer	2124 Eastman Avenue	State Center	Marshall	IA	50247	42.043429	-93.164599
Union, IA 6096 Satellite	1779 Marble Road	Union	Marshall	IA	50258	42.173889	-93.084739
Heartland Coop - Glenwood	59134 Hwy 275	Glenwood	Mills	IA	51534	41.025893	-95.671313
Heartland Co-op Henderson	301 South East Street	Henderson	Mills	IA	51541	41.139444	-95.433611
Agriland FS INC. Malvern	500 W. 5TH	Malvern	Mills	IA	51551	41.0025248	-95.592121
Heartland Co-op Malvern	306 West 6th Street	Malvern	Mills	IA	51551	41.006944	-95.591389
WinField United - Pacific Junction IA	60597 195th St.	Pacific Junction	Mills	IA	51561	41.007983	-95.801521
Little Cedar Co-op Elevator	4259 Quail Avenue	Little Cedar	Mitchell	IA	50454	43.3806	-92.7241
AgVantage FS - Mona (Lyle)	1392 Stateline Street	Mona	Mitchell	IA	55953	43.498889	-92.945278
Osage Cooperative Elevator	216 Mechanic St.	Osage	Mitchell	IA	50461	43.289228	-92.825057

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
St Ansgar, IA Satellite (420th St)	1085 420th Street	St Ansgar	Mitchell	IA	50472	43.371730	-93.006630
St Ansgar, IA Satellite (Red Ball Rd)	4180 Red Ball Road	St Ansgar	Mitchell	IA	50472	43.366357	-92.906439
Absolute Energy, L.L.C.	1372 State Line Road	St. Ansgar	Mitchell	IA	50472	43.497147	-92.953019
Northern Country Cooperative Company	2202 470th Street	Stacyville	Mitchell	IA	50476	43.443021	-92.789882
Northern Country Cooperative Company	4701 Hickory Ave	Toeterville	Mitchell	IA	50481	43.443796	-92.893431
Blencoe, IA 100	300 Main Street	Blencoe	Monona	IA	51523	41.928889	-96.082511
Mapleton, IA 103	38594 Highway 175	Mapleton	Monona	IA	51034	42.185660	-95.795915
AGRILAND FS, Inc. - Moorhead	30428 Pine Ave	Moorhead	Monona	IA	51558	41.917839	-95.850315
Farm Service Coop - Moorhead	29552 State Hwy 183	Moorhead	Monona	IA	51558	41.928753	-95.835756
Turin, IA 107 Satellite	23298 Larpenteur Memorial Road	Turin	Monona	IA	51040	42.017731	-95.965860
Ute, IA 111 Satellite	18530 Highway 141 North	Ute	Monona	IA	51060	42.059131	-95.712405
Enterprise Whiting Terminal & Storage	16653 Iowa Highway K45	Whiting	Monona	IA	51063	42.117711	-96.142350
AGRILAND FS INC. -Albia	6281 160th St.	Albia	Monroe	IA	52531	41.0750318	-92.8557587
AHN North America, Inc. Heartland Ingredients	1116 Highway 137	Eddyville	Monroe	IA	52553	41.14333	-92.649167
Ajinomoto Health & Nutrition North America, Inc.	1 Ajinomoto Drive	Eddyville	Monroe	IA	52553	41.148611	-92.646389
Moravia, IA 1334	2774 Highway 5	Moravia	Monroe	IA	52571	40.902567	-92.828584
Nachurs Alpine Solutions - Red Oak Plant	1705 North Broadway Street	Red Oak	Montgomery	IA	51566	41.0202	-95.234600
United Farmers Cooperative - Red Oak	203 West Oak Street	Red Oak	Montgomery	IA	51566	41.019588	-95.239220
United Farmers Coop - Villisca South	200 West 7th Street	Villisca	Montgomery	IA	50864	40.925528	-94.980276
United Farmers Cooperative - Villisca Agronomy	401 North U Avenue	Villisca	Montgomery	IA	50864	40.935640	-94.984878
Atalissa, IA 6004	2015 Highway 6	Atalissa	Muscatine	IA	52720	41.568707	-91.170086
River Valley Cooperative Durant NH3	3478 A Highway 927	Durant	Muscatine	IA	52747	41.596223	-90.882749
Bayer Muscatine Plant	2500 Wiggins Road	Muscatine	Muscatine	IA	52761	41.350000	-91.080833
Drinking Water Treatment at Generation Station	1700 Dick Drake Way	Muscatine	Muscatine	IA	52761	41.391548	-91.061424
Grain Processing Corporation	1600 Oregon St.	Muscatine	Muscatine	IA	52761	41.397861	-91.060889
Grandview Avenue Drinking Water Treatment	Dick Drake Way	Muscatine	Muscatine	IA	52761	41.390556	-91.087778
Linde - Muscatine, IA	2200 Stewart Road	Muscatine	Muscatine	IA	52761	41.391304	-91.072164
Muscatine Ag	3094 170 street	Muscatine	Muscatine	IA	52761	41.497028	-90.962528
Power Generation Station	1700 Dick Drake Way	Muscatine	Muscatine	IA	52761	41.388611	-91.058056
Progress Park Drinking Water Treatment	49th Street South	Muscatine	Muscatine	IA	52761	41.370833	-91.124722

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Nichols Ag	1783 Davis Ave.	Nichols	Muscatine	IA	52766	41.484063	-91.308374
West Liberty Foods L.L.C.	207 West 2nd Street	West Liberty	Muscatine	IA	52776	41.569167	-91.265833
Archer Grain Coop Company	112 Cherokee Avenue	Archer	O'brien	IA	51231	43.115646	-95.748015
AgState- Calumet	312 South Railway Avenue	Calumet	O'brien	IA	51009	42.942646	-95.548494
Valero Renewable Fuels Company, LLC	3260 Van Buren Avenue	Hartley	O'brien	IA	51346	43.176389	-95.503056
Enterprise Sanborn Terminal and Storage	3220 Silver Ave.	Sanborn	O'brien	IA	51248	43.181035	-95.622464
Sunrise Farms, Inc.	2060 White Ave.	Harris	Osceola	IA	51345	43.352306	-95.442778
Melvin, IA Satellite	2544 Sorrel Avenue	Melvin	Osceola	IA	51350	43.280343	-95.603782
CFE - Ocheyedon	781 Lover's Lane	Ocheyedon	Osceola	IA	51354	43.419004	-95.531946
Agriland FS, Inc. - Clarinda Agronomy	401 North 1st Street	Clarinda	Page	IA	51632	40.741962	-95.017148
Agriland FS, Inc. - Clarinda Main	Hwy 2 & 71 By-Pass	Clarinda	Page	IA	51632	40.733997	-95.019357
Atchison County AGChoice Ammonia Plant	1964 270 Street	Coin	Page	IA	51636	40.653800	-95.207619
Coin, IA 6013	2838 Hackberry Avenue	Coin	Page	IA	51636	40.634444	-95.225000
United Farmers Cooperative - Essex	411 North Street	Essex	Page	IA	51638	40.837092	-95.308333
Helena Agri-Enterprises, LLC - Shenandoah, IA	303 NORTHWEST ROAD	Shenandoah	Page	IA	51601	40.768915	-95.376449
United Farmers Cooperative - Shenandoah	506 North Center	Shenandoah	Page	IA	51601	40.771596	-95.367161
StateLine Cooperative-Cylinder Facility	3875 525th Avenue	Cylinder	Palo Alto	IA	50528	43.087279	-94.554292
New Coop - Emmetsburg	4498 Works Rd	Emmetsburg	Palo Alto	IA	50536	43.111162	-94.702519
POET Biorefining - Emmetsburg	4724 380th Street	Emmetsburg	Palo Alto	IA	50536	43.091625	-94.643056
New Coop - Mallard	511 Miller Street	Mallard	Palo Alto	IA	50562	42.944121	-94.686910
Central Valley Ag - Akron Facility	110 River Road	Akron	Plymouth	IA	51001	42.826629	-96.564145
Central Valley Ag - Hinton facility	105 East Main	Hinton	Plymouth	IA	51024	42.625195	-96.291360
Ag State - Kingsley Storage	112 E First St	Kingsley	Plymouth	IA	51028	42.586210	-95.966005
Ag State - Kingsley West Nurse Tanks	24 West 1st St.	Kingsley	Plymouth	IA	51028	42.586889	-95.970450
DFA Dairy Brands Fluid, LLC dba Kemps	1188 Lincoln Street SW	Le Mars	Plymouth	IA	51031	42.779500	-96.182800
Nor-Am Cold Storage	1555 21st Street S.W.	Le Mars	Plymouth	IA	51031	42.768166	-96.186310
North Ice Cream Plant	121 2nd Avenue SE	Le Mars	Plymouth	IA	51031	42.792	-96.171000
South Ice Cream Plant	1191 18th Street SW	Le Mars	Plymouth	IA	51031	42.77386	-96.183930
Americold, LEMARS	1609 18th Street S.W.	Lemars	Plymouth	IA	51031	42.772222	-96.185000
Pro-V Packing	801 6th Street S W	Lemars	Plymouth	IA	51031	42.786508	-96.178963

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Central Valley Ag - Oyens Facility	325 Commercial Street	Oyens	Plymouth	IA	51045	42.818522	-96.060400
Farmers Cooperative Company Remsen NH3	16461 L-12	Remsen	Plymouth	IA	51050	42.815598	-95.979302
AgState - Fonda	62048 110th Ave.	Fonda	Pocahontas	IA	50540	42.588892	-94.891955
PRO Cooperative Inc. - Havelock	Intersection Clay St. & 210th Ave.	Havelock	Pocahontas	IA	50546	42.831499	-94.697164
Ag State-Laurens NH3	110 W. Hwy 10	Laurens	Pocahontas	IA	50554	42.844921	-94.854659
Palmer, IA 4	206 Main Street	Palmer	Pocahontas	IA	50571	42.628732	-94.602965
PRO Cooperative, Inc. - Rolfe	708 Broad Street	Rolfe	Pocahontas	IA	50581	42.811405	-94.53340
Heartland Co-op Alleman	13800 NE 6th	Alleman	Polk	IA	50007	41.812778	-93.610275
Lineage Logistics - Altoona	612 Adventureland Drive NE	Altoona	Polk	IA	50009	41.6664298	-93.455344
Marzetti Frozen Pasta, Inc.	803 8th Street, SW	Altoona	Polk	IA	50009	41.645472	-93.472944
Airgas USA, LLC - Ankeny, IA	410 SE Creekview Dr	Ankeny	Polk	IA	50021	41.7271840	-93.5750110
Hy-Vee Fresh Commissary	4150 SE Delaware	Ankeny	Polk	IA	50021	41.692352	-93.583954
Perishable Distributors of Iowa	2741 PDI Place	Ankeny	Polk	IA	50021	41.700556	-93.585278
Sysco Iowa, Inc.	One Sysco Place	Ankeny	Polk	IA	50021	41.710850	-93.591150
Landus Cooperative - Bondurant	8478 NE 78th Street	Bondurant	Polk	IA	50035	41.7037444	-93.436688
General Mills Operations, Inc.	6101 Southeast 52nd Street	Carlisle	Polk	IA	50047	41.526944	-93.506944
Heartland Co-op Goodhue	5650 E. Army Post Road	Carlisle	Polk	IA	50317	41.52472	-93.506740
Anderson Erickson Dairy Company	2229 Hubbell Avenue	Des Moines	Polk	IA	50317	41.601389	-93.576389
Crossroads Cold Storage	3805 Vandalia road	Des Moines	Polk	IA	50317	41.568	-93.534
Des Moines Butane Storage	2503 SE 43rd Street	Des Moines	Polk	IA	50327	41.563889	-93.526944
Des Moines Cold Storage-East	4770 N.E. 17th Ct.	Des Moines	Polk	IA	50313	41.647145	-93.594580
Des Moines Wastewater Reclamation Authority	3000 Vandalia Road	Des Moines	Polk	IA	50317	41.572778	-93.557778
Helena Industries, LLC	3525 Vandalia Road	Des Moines	Polk	IA	50317	41.569231	-93.547025
Kansas City Sausage Co., LLC dba Pine Ridge Farms	1801 Maury Street	Des Moines	Polk	IA	50317	41.581036	-93.587554
Kemin Industries, Inc. - Des Moines Facility	2100 Maury St.	Des Moines	Polk	IA	50317	41.582222	-93.580000
Lineage Logistics - Des Moines	1650 East Madison	Des Moines	Polk	IA	50313	41.634082	-93.594004
Heartland Co-op Elkhart	4415 NE 108th Avenue	Elkhart	Polk	IA	50073	41.756416	-93.526031
Heartland Co-op Mitchellville	101 S. Center Avenue	Mitchellville	Polk	IA	50169	41.666694	-93.358833
Heartland Co-op Mitchellville South	1349-112th Street	Mitchellville	Polk	IA	50169	41.658500	-93.356903



**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Des Moines Storage and Terminal	4401 Vandalia Road	Pleasant Hill	Polk	IA	50327	41.565788	-93.526799
Greater Des Moines Energy Center	4401 Carlisle Road	Pleasant Hill	Polk	IA	50327	41.556340	-93.525390
AGRILAND FS INC. AVOCA	110 E. ELLSWORTH	Avoca	Pottawattamie	IA	51521	41.4741462	-95.3351122
Conagra Brands, Inc. - Council Bluffs, IA	1023 South 4th Street	Council Bluffs	Pottawattamie	IA	51503	41.251430	-95.850545
Council Bluffs Water Works	2000 North 25th Street	Council Bluffs	Pottawattamie	IA	51502	41.278361	-95.882556
Future Foam, Inc	400 North 10th Street	Council Bluffs	Pottawattamie	IA	51503	41.265833	-95.862778
Highline Warren - WDII	2849 River Road	Council Bluffs	Pottawattamie	IA	51501	41.232895	-95.905246
Plumrose dba Swift Prepared Foods - Plant #1	2650 23rd Avenue	Council Bluffs	Pottawattamie	IA	51501	41.2417	-95.884300
Plumrose dba Swift Prepared Foods - Plant #2	3210 21st ave	Council Bluffs	Pottawattamie	IA	51501	41.243525	-95.895603
Southwest Iowa Renewable Energy	10868 189th St	Council Bluffs	Pottawattamie	IA	51503	41.261949	-95.861125
Tyson Fresh Meats, Inc. (Council Bluffs, IA)	2700 23rd Avenue	Council Bluffs	Pottawattamie	IA	51501	41.243128	-95.888617
Hancock, IA 447	317 West Kimball	Hancock	Pottawattamie	IA	51536	41.389178	-95.366068
Underwood Farm Supply LLC	26530 Idlewood Rd	Mcclelland	Pottawattamie	IA	51548	41.333200	-95.678651
Heartland Co-op Neola	501 Front Street	Neola	Pottawattamie	IA	51559	41.447222	-95.617500
Farm Service Coop-Oakland	41938 Industrial Road	Oakland	Pottawattamie	IA	51560	41.34922	-95.385625
Oakland Foods a Division of OSI Industries, LLC	21876 North Highway 59	Oakland	Pottawattamie	IA	51560	41.330556	-95.386667
Farm Service Coop-Shelby	32216 385th Street	Shelby	Pottawattamie	IA	51571	41.480044	-95.452904
Heartland Co-op Treynor	Highway 92 East	Treynor	Pottawattamie	IA	51575	41.233889	-95.584167
AGRILAND FS INC. UNDERWOOD	701 Railroad Hwy.	Underwood	Pottawattamie	IA	51576	41.3796595	-95.682408
Underwood Farm Supply L.L.C.	26201 Magnolia Rd	Underwood	Pottawattamie	IA	51576	41.375817	-95.685953
Walnut Creek Fertilizer	405 Pearl St.	Walnut	Pottawattamie	IA	51577	41.475833	-95.226944
New Century FS Brooklyn	4188 V18 RD	Brooklyn	Poweshiek	IA	52211	41.688333	-92.451667
Rohrer Brothers, Inc. Brooklyn NH3	209 Railroad Ave	Brooklyn	Poweshiek	IA	52211	41.704425	-92.547472
Key Cooperative - GAC	1128 Pinder Ave	Grinnell	Poweshiek	IA	50112	41.713363	-92.719355
Key Cooperative - Grinnell	330 West St S	Grinnell	Poweshiek	IA	50112	41.727265	-92.722187
New Century FS - Grinnell	1017 Ogan Ave	Grinnell	Poweshiek	IA	50112	41.724444	-92.723056
BASF Corporation - Malcom Site	106 Main Street	Malcom	Poweshiek	IA	50157	41.70633	-92.55596
Heartland Coop- Malcom	1001 E. Railroad Drive	Malcom	Poweshiek	IA	50157	41.704296	-92.547106
Helena Agri-Enterprises, LLC - Benton, IA Facility	2401 County Hwy P27	Benton	Ringgold	IA	50835	40.694811	-94.387408
United Farmers Coop - Mt Ayr (new)	2273 - 240th Street	Mt. Ayr	Ringgold	IA	50854	40.695774	-94.229126

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Agrium U.S. Inc. - Early Terminal	1887 Karr Avenue	Early	Sac	IA	50535	42.520000	-95.152222
Landus Cooperative - Early	2217 230th St.	Early	Sac	IA	50535	42.452499	-95.146631
Landus Cooperative - Lytton	115 Main St	Lytton	Sac	IA	50561	42.421238	-94.860496
Odebolt, IA 6018	119 North Walnut Street	Odebolt	Sac	IA	51458	42.313577	-95.251132
Odebolt, IA 6018 Satellite (North Des Moines St)	200 North Des Moines Street	Odebolt	Sac	IA	51458	42.314167	-95.245833
Odebolt, IA 6018 Satellite (North Walnut)	200 North Walnut	Odebolt	Sac	IA	51458	42.315398	-95.253058
Landus Cooperative - Sac Co. Agronomy Center	2751 Perkins Avenue	Sac City	Sac	IA	50583	42.392468	-95.053684
Sac City, IA 6035 Satellite	3316 255th Street	Sac City	Sac	IA	50583	42.420885	-94.934731
Ag State - Schaller NH3	1457 County Road	Schaller	Sac	IA	51053	42.504003	-95.297965
Wall Lake, IA 6026	202 East 1st Street	Wall Lake	Sac	IA	51466	42.270560	-95.086792
U.S. Oil Bettendorf Terminal	2925 Depot Street	Bettendorf	Scott	IA	52722	41.5247502	-90.4912671
Kraft Heinz - Davenport	9401 Granite Way	Davenport	Scott	IA	52806	41.617578	-90.612417
PB Leiner USA	7001 Brady Street	Davenport	Scott	IA	52806	41.590833	-90.568611
ChemTreat, Inc., Eldridge, IA	200 East Trails Road	Eldridge	Scott	IA	52748	41.621889	-90.574806
River Valley Coop - S/M Eldridge	200 South 18th Avenue (west side)	Eldridge	Scott	IA	52748	41.653044	-90.563167
River Valley Cooperative Eldridge NH3	201 S. 18th Avenue (East Side)	Eldridge	Scott	IA	52748	41.653143	-90.562127
Farm Service Cooperative-Defiance	1131 2200th St.	Defiance	Shelby	IA	51527	41.819161	-95.351821
Agriland FS INC. Corley	1229 Street F58	Harlan	Shelby	IA	51537	41.5772612	-95.3343200
Monogram Prepared Meats	1231 870th Street	Harlan	Shelby	IA	51537	41.62536	-95.33317
Farm Service Coop-Irwin	406 Front Street	Irwin	Shelby	IA	51446	41.788771	-95.204571
Cogdill Farm Supply, INC. {Panama}	301 North Railway Str.	Panama	Shelby	IA	51562	41.728798	-95.471894
Farm Service Coop - Portsmouth	105 Main Street	Portsmouth	Shelby	IA	51565	41.649440	-95.516065
CFE - Hawarden	902 - 7th St	Hawarden	Sioux	IA	51023	42.991950	-96.480983
CFE - Sioux NH3	401 3rd Street	Hawarden	Sioux	IA	51023	42.989698	-96.489559
Premium Iowa Pork, LLC	108 1st Ave South	Hospers	Sioux	IA	51238	43.07316	-95.908450
Ireton, IA	1004 Highway K-30	Ireton	Sioux	IA	51027	42.968941	-96.313687
Smithfield Fresh Meats Corp. - Orange City, IA	101 14 th St. S.E.	Orange City	Sioux	IA	51041	42.991099	-96.058390
Sioux Center, IA	110 3rd Avenue Northwest	Sioux Center	Sioux	IA	51250	43.077952	-96.185125
Siouxland Energy Cooperative	3890 Garfield Avenue	Sioux Center	Sioux	IA	51250	43.087099	-96.230914
Sioux-Preme Packing Company	4241 US 75 Avenue	Sioux Center	Sioux	IA	51250	43.035500	-96.177200



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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Smithfield Packaged Meats Corp.	251 15th Street NE	Sioux Center	Sioux	IA	51250	43.092619	-96.171385
Heartland Co-op Cambridge	315 South Water	Cambridge	Story	IA	50046	41.895310	-93.524940
Landus Cooperative - Collins	70500 South Main Street	Collins	Story	IA	50055	41.898530	-93.304883
Colo, IA 416 Satellite	23959 730th Avenue	Colo	Story	IA	50056	42.008755	-93.251771
Heartland Co-op Colo	417 2nd Street	Colo	Story	IA	50056	42.018511	-93.310877
Key Cooperative	65432 Richland Street	Fernald	Story	IA	50201	42.069158	-93.397375
Key Cooperative	325 Main Street	Gilbert	Story	IA	50105	42.110105	-93.649734
Key Cooperative-Kelley Location	27948 - 530th Ave	Kelley	Story	IA	50134	41.951842	-93.638240
Landus Cooperative - Maxwell	33509 650th Avenue	Maxwell	Story	IA	50161	41.870109	-93.406838
Burke Corporation	1516 South D Avenue	Nevada	Story	IA	50201	42.008277	-93.438778
Key Cooperative	22703 600th Ave.	Nevada	Story	IA	50201	42.026448	-93.505692
Lincolnway Energy, LLC	59511 West Lincoln Hwy	Nevada	Story	IA	50201	42.027714	-93.513331
Key Cooperative- S-14 Location	13585 620th Ave	Roland	Story	IA	50236	42.159569	-93.464582
Heartland Co-op Slater	1120 West 1st Avenue	Slater	Story	IA	50244	41.883060	-93.697250
HWTG - Slater	101 Greene Street	Slater	Story	IA	50244	41.882542	-93.687388
Key Cooperative	200 West 1st Street	Story City	Story	IA	50248	42.179825	-93.605507
Heartland Co-op Zearing	15985 720th Avenue	Zearing	Story	IA	50278	42.122890	-93.270973
Key Cooperative - Zearing	421 East Main Street	Zearing	Story	IA	50278	42.159830	-93.290616
Tama-Benton Cooperative - Clutier	311 Front Street	Clutier	Tama	IA	52217	42.076529	-92.403615
Tama-Benton Cooperative - Dysart	1411 Talmage Street	Dysart	Tama	IA	52224	42.174492	-92.318309
New Century FS - Garwin	101 Anna Street	Garwin	Tama	IA	50632	42.096111	-92.679167
New Century FS - Gladbrook	2 Garfield	Gladbrook	Tama	IA	50635	42.189722	-92.720000
Heartland Coop- Lincoln	105 W. Main St.	Lincoln	Tama	IA	50652	42.265000	-92.692222
Key Cooperative - LeGrand location	1004 Highway E-49	Marshalltown	Tama	IA	50158	41.978427	-92.763377
Iowa Premium, LLC	3337 L Avenue	Tama	Tama	IA	52339	41.958894	-92.552276
New Century FS - Midway	1934 Hwy E-29	Todelo	Tama	IA	52342	42.099183	-92.585224
New Century FS - Toledo	108 S West St	Toledo	Tama	IA	52342	41.994444	-92.583056
New Century FS - Traer	2617 Hwy 8E	Traer	Tama	IA	50675	42.190556	-92.453611
Peve Crop Service	2181 State Highway 2	Bedford	Taylor	IA	50683	40.676944	-94.707222
United Farmers Cooperative - Clearfield	HWY 25 SOUTH	Clearfield	Taylor	IA	50840	40.793025	-94.472569

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Agriland FS, Inc. - Lenox	HWY 49 North	Lenox	Taylor	IA	50851	40.893056	-94.566667
Michael Foods-EPC	1009 South Brooks Street	Lenox	Taylor	IA	50851	40.868333	-94.562629
United Farmers Cooperative - Lenox Plant	701 East Van Buren	Lenox	Taylor	IA	50851	40.885430	-94.550838
United Farmers Cooperative - Arispe Branch	400 US Highway 169	Arispe	Union	IA	50831	40.951002	-94.223202
Burgmaier Fertilizer	1720 Commerce Road	Creston	Union	IA	50801	41.0542389	-94.3398778
Creston, IA 2706 Satellite	1308 Howard Street	Creston	Union	IA	50801	41.058159	-94.345663
Creston, IA 6014	1726 Osage Street	Creston	Union	IA	50801	41.053006	-94.335112
Green Valley Chemical Corp	1284 North Cherry Street Road	Creston	Union	IA	50801	41.116502	-94.354341
Enterprise Cantril Terminal & Storage	14601 Highway 2	Cantril	Van Buren	IA	52542	40.645933	-92.090717
Keosauqua, IA 1348 Satellite	21736 205th Street	Keosauqua	Van Buren	IA	52565	40.747043	-91.953461
Agriland FS Inc. - Stockport	28022 120th St.	Stockport	Van Buren	IA	52651	40.8716376	-91.8326961
Vision Ag LLC - Stockport	13794 Route W 30	Stockport	Van Buren	IA	52651	40.846049	-91.831995
Blakesburg, IA 2421 Satellite	104 East South Street	Blakesburg	Wapello	IA	52536	40.959359	-92.635911
Eldon, IA 1342 Satellite	1367 Highway 16	Eldon	Wapello	IA	52554	40.905069	-92.201208
JBS Ottumwa, IA Pork Facility	600 South Iowa Ave	Ottumwa	Wapello	IA	52501	41.004700	-92.395300
Lineage Logistics - Ottumwa, IA	8 "K" Avenue	Ottumwa	Wapello	IA	52501	41.005022	-92.392094
Ottumwa Water & Hydro	230 Turner Drive	Ottumwa	Wapello	IA	52501	41.018333	-92.416664
Heartland Co-op Poverty Hollow	18836 Hayes Street	Ackworth	Warren	IA	50001	41.392250	-93.445892
Heartland Co-op Ruble	20594 G24 Hiway	Hartford	Warren	IA	50118	41.435054	-93.411720
AGRILAND FS, Inc (Indianola)	2616 West 2nd Avenue	Indianola	Warren	IA	50125	41.3578313	-93.5961040
Heartland Co-op Evansville	5855 Hiway 65/69 North	Indianola	Warren	IA	50125	41.440250	-93.557724
Heartland Co-op Hunnerdose	12732 Pershing Street	Indianola	Warren	IA	50125	41.277999	-93.563110
Heartland Co-op -Lacona	200 E. Mill St	Lacona	Warren	IA	50139	41.185300	-93.383858
SFG-Milo	101 First Street	Milo	Warren	IA	50166	41.287610	-93.437377
Michael Foods Norwalk	101 Delaware Street	Norwalk	Warren	IA	50211	41.462406	-93.688060
Vision Ag LLC - Ainsworth	2952 Highway 92	Ainsworth	Washington	IA	52201	41.291561	-91.570848
Koch Fertilizer, LLC - Washington Terminal	2156 Fir Avenue	Keota	Washington	IA	52248	41.343889	-91.846890
Vision Ag LLC - Keota	2038 Keokuk / Washington Road	Keota	Washington	IA	52248	41.36339	-91.94564
Vision Ag LLC - Keota (FCA)	2040 Keokuk-Washington Rd	Keota	Washington	IA	52248	41.36268	-91.946050
Eldon C. Stutsman, Inc. - Riverside Facility	410 E. River Street	Riverside	Washington	IA	52327	41.480353	-91.573375

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
AGRILAND FS INC.-WASHINGTON	425 Hwy 1 & 92	Washington	Washington	IA	52353	41.3023421	-91.7176954
Eldon C Stutsman - Wellman Facility	1340 Fir Avenue	Wellman	Washington	IA	52356	41.460941	-91.842501
Vision Ag LLC - West Chester	214 West Highway 92	West Chester	Washington	IA	52359	41.335624	-91.816711
MFA Agri Service Corydon	2184 Hwy 2	Corydon	Wayne	IA	50060	40.760577	-93.328229
AGRILAND FS, Inc. (Humeston)	420 North 4th Street	Humeston	Wayne	IA	50123	40.862778	-93.494167
UFC Humeston	319 W. Guy Porter Rd.	Humeston	Wayne	IA	50123	40.857399	-93.502546
MFA Agri Service Lineville	204 Birch Street	Lineville	Wayne	IA	50147	40.594924	-93.521660
Badger, IA 1	100 Center Avenue	Badger	Webster	IA	50516	42.616530	-94.147725
Barnum, IA 8 Satellite	1941 Dakota Avenue	Barnum	Webster	IA	50518	42.511302	-94.384137
Van Diest Supply Company	403 Front St.	Barnum	Webster	IA	50518	42.509444	-94.372500
Clare, IA 2	100 North Hood Street	Clare	Webster	IA	50524	42.589237	-94.347146
Landus Cooperative - Dayton	3749 Racine Ave.	Dayton	Webster	IA	50530	42.246667	-94.067500
Duncombe, IA 3 Satellite	1735 Oak Street	Duncombe	Webster	IA	50532	42.465898	-93.980450
Koch Fertilizer Ft. Dodge, LLC	3162 200th St.	Duncombe	Webster	IA	50532	42.500630	-94.015990
Linde - Fort Dodge, IA	3160 200th Street	Duncombe	Webster	IA	50532	42.500896	-94.018532
Van Diest Supply Company	304 Main St.	Duncombe	Webster	IA	50532	42.472500	-93.994167
Americold, Fort Dodge - Plant # 80565	3543 Maple Dr.	Fort Dodge	Webster	IA	50501	42.498840	-94.133660
BHJ USA, LLC	2472 170th Street	Fort Dodge	Webster	IA	50501	42.544489	-94.154042
CJ Bio America	1946 Harvest Avenue	Fort Dodge	Webster	IA	50501	42.512471	-94.311070
John W. Pray Water Treatment Plant	600 Phinney Park Drive	Fort Dodge	Webster	IA	50501	42.507970	-94.203915
Valero Renewable Fuels, LLC - Fort Dodge	1930 Hayes Avenue	Fort Dodge	Webster	IA	50501	42.511111	-94.300556
Landus Cooperative - Gowrie	3571 Indiana Ave	Gowrie	Webster	IA	50543	42.272234	-94.224435
Harcourt, IA 28	2024 390th Street	Harcourt	Webster	IA	50544	42.223966	-94.199766
Moorland, IA 10	1208 Main Street	Moorland	Webster	IA	50566	42.415686	-94.352981
Otho, IA 9	2148 250th Street	Otho	Webster	IA	50569	42.425852	-94.174148
Vincent, IA 11	205 North 1st Street	Vincent	Webster	IA	50594	42.594166	-94.018113
StateLine Cooperative-Buffalo Center	3413 Highway 9 East	Buffalo Center	Winnebago	IA	50424	43.383855	-93.924422
Farmers Cooperative Assn. - Leland	222 W. Broadway	Leland	Winnebago	IA	50453	43.3382516	-93.640422
Landus Cooperative - Rake West	641 North 6th Street	Rake	Winnebago	IA	50465	43.485497	-93.924400
Five Star Cooperative - Scarville	101 West First Street	Scarville	Winnebago	IA	50473	43.468762	-93.615345

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Landus Cooperative - Thompson	425 Harrison Street North	Thompson	Winnebago	IA	50478	43.375812	-93.775778
Farmers Win Coop - Burr Oak	3480 US Highway 52	Decorah	Winneshiek	IA	52101	43.438707	-91.859099
Farmers Union Cooperative	1913 County Rd B-32	Ossian	Winneshiek	IA	52161	43.146618	-91.77882
Farmers Win Coop - Ridgeway	730 Railroad Street	Ridgeway	Winneshiek	IA	52165	43.298020	-91.989463
FWC - Jackson Junction	3203 State Highway 24	Waucoma	Winneshiek	IA	52171	43.115081	-92.033936
Anthon, IA 6062 Satellite (Miller Ave)	207 Miller Avenue	Anthon	Woodbury	IA	51004	42.389684	-95.867549
Anthon, IA 6062 Satellite (Rock Branch)	2071 Rock Branch Road	Anthon	Woodbury	IA	51004	42.402266	-95.868412
Correctionville, IA 101	531 Driftwood Street	Correctionville	Woodbury	IA	51016	42.476250	-95.787120
Danbury, IA 6010	105 South East Street	Danbury	Woodbury	IA	51019	42.233100	-95.720551
Hornick, IA 102	3330 Movable Blacktop	Hornick	Woodbury	IA	51026	42.224087	-96.093915
Moville, IA 6061	201 North First Street	Moville	Woodbury	IA	51039	42.492797	-96.073779
Pierson, IA 105	520 Front Street	Pierson	Woodbury	IA	51048	42.541400	-95.866203
CF Industries Nitrogen, LLC - Port Neal Complex	1182 260th Street	Sergeant Bluff	Woodbury	IA	51054	42.329444	-96.377778
Koch Fertilizer, LLC-Sergeant Bluff Terminal	2735 Port Neal Circle	Sergeant Bluff	Woodbury	IA	51054	42.308111	-96.363056
The Andersons - Sergeant Bluff Facility	2717 Port Neal Circle	Sergeant Bluff	Woodbury	IA	51054	42.310833	-96.361111
Americold, Sioux City Plant 1	2900 Murray St.	Sioux City	Woodbury	IA	51111	42.426691	-96.372998
Americold, Sioux City Plant 6	2640 Murray Street.	Sioux City	Woodbury	IA	51111	42.426111	-96.373056
City of Sioux City Water Plant	1101 Tri View Avenue	Sioux City	Woodbury	IA	51103	42.493241	-96.420019
Seaboard Triumph Foods	5555 Seaboard Triumph Parkway	Sioux City	Woodbury	IA	51111	42.422775	-96.386246
Smithfield Packaged Meats Corp. - Sioux City, IA	1000 Cunningham Drive	Sioux City	Woodbury	IA	51106	42.484173	-96.382429
TCCS Sioux City IA.	3939 South Lewis Boulevard	Sioux City	Woodbury	IA	51106	42.440357	-96.373204
The Andersons - Sioux City Facility	514 South Floyd Boulevard	Sioux City	Woodbury	IA	51101	42.486389	-96.392778
Turpak Foods And Companies	6201 MacArthur Street	Sioux City	Woodbury	IA	51111	42.397840	-96.372431
Viafield - Grafton	3989 Warbler Avenue	Grafton	Worth	IA	50440	43.341177	-93.063555
Five Star Cooperative - Joice	355 410th Street	Joice	Worth	IA	50446	43.355999	-93.446714
Manly Terminal, LLC	1575 380th St.	Manly	Worth	IA	50456	43.313019	-93.206299
Viafield - Northwood 315	315 - 16th Street North	Northwood	Worth	IA	50459	43.448104	-93.211350
Viafield NW 316	316 16th Street N	Northwood	Worth	IA	50459	43.448000	-93.210333
Gold-Eagle Cooperative-North Bulk Plant Clarion	2004 Madison Ave.	Clarion	Wright	IA	50525	42.760034	-93.734736
Gold-Eagle Cooperative-Eagle Grove	1200 North Arthur Avenue	Eagle Grove	Wright	IA	50533	42.675771	-93.904239

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Prestage Foods of Iowa	3183 Highway 17	Eagle Grove	Wright	IA	50533	42.589965	-93.916431
CORN, LP	1303 Highway 3 East	Goldfield	Wright	IA	50542	42.733339	-93.910902
Woolstock, IA 23 Satellite	1632 330th Street	Woolstock	Wright	IA	50599	42.571788	-93.843214
Mid-West Fertilizer, LLC. - Iola	713 North Industrial Road	Ioal	Allen	KS	66749	37.928614	-95.410968
Russell Stover Chocolates - Iola Kansas Plant	1995 Marshmallow Lane	Iola	Allen	KS	66749	37.9415	-95.415400
Beachner Grain, Inc.	29086 NW Walnut	Garnett	Anderson	KS	66032	38.318010	-95.436865
Beachner Grain, Inc.	804 E 6th	Garnett	Anderson	KS	66032	38.278559	-95.228453
East Kansas Agri-Energy, LLC	1304 Main Street	Garnett	Anderson	KS	66032	38.271522	-95.237414
HWTG - Garnett	1202 East 2nd Avenue	Garnett	Anderson	KS	66032	38.283362	-95.219055
Beachner Grain, Inc.	601 South Martindale	Kincaid	Anderson	KS	66039	38.079406	-95.150915
WESTPHALIA	610 WARNE	Westphalia	Anderson	KS	66093	38.179748	-95.490318
Atchison, KS 2861	1699 US 59	Atchison	Atchison	KS	66002	39.557342	-95.142820
Baker Services Inc. - Morton Road	12404 Morton Road	Atchison	Atchison	KS	66002	39.64290	-95.23241
Lancaster NH3	300 West Broadway	Lancaster	Atchison	KS	66041	39.575492	-95.306361
Spielman Fertilizer	2611 254th Rd	Muscotah	Atchison	KS	66058	39.508575	-95.508848
Mid-West Fertilizer INC. Nortonville KS	10037 206th Road	Nortonville	Atchison	KS	66060	39.425031	-95.337811
OK Coop - Hardtner NH3	Osage St.	Hardtner	Barber	KS	67057	37.010383	-98.648869
OK Coop - Hazelton NH3	300 N. Ave. D	Hazelton	Barber	KS	67061	37.092951	-98.408477
Great Bend Coop-Albert Branch	806 North Main	Albert	Barton	KS	67511	38.455576	-99.009238
BEAVER GRAIN, INC	1905 Main Street	Beaver	Barton	KS	67525	38.638695	-98.664528
Central PRAIRIE Co-Op - Claflin (N) Facility	1097 N. E. 130 Ave.	Claflin	Barton	KS	67525	38.311638	-98.481303
Great Bend Coop Association- Ellinwood	104 South Kennedy	Ellinwood	Barton	KS	67526	38.353234	-98.586092
Galatia Nh3 Plant	101 Steinert	Galatia	Barton	KS	67565	38.63874	-98.964090
Fuller Industries Inc.	15 SW 40 Ave.	Great Bend	Barton	KS	67530	38.358056	-98.850833
Redbarn Pet Products, LLC	30 Southeast #10 Road	Great Bend	Barton	KS	67530	38.347366	-98.771300
Hoisington Nh3 Plant	202 East Railroad	Hoisington	Barton	KS	67544	38.508719	-98.774762
Olmitz Nh3 Plant	200 Jackson Ave.	Olmitz	Barton	KS	67564	38.521727	-98.941464
Fort Scott Water Treatment Plant	910 Burke Street	Fort Scott	Bourbon	KS	66701	37.829972	-94.716833
Ag Partners Cooperative, Inc. - Hiawatha	708 S Tenth Street	Hiawatha	Brown	KS	66434	39.846944	-95.541944
Ag Partners Cooperative, Inc. - Willis NH3	1574 150th St.	Hiawatha	Brown	KS	66434	39.725664	-95.513518

**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Ag Partners Cooperative, Inc.-Padonia	153 1st St	Hiawatha	Brown	KS	66434	39.923969	-95.561702
East Morrill NH3	1974 260 St.	Hiawatha	Brown	KS	66434	39.886248	-95.438197
HB - Hiawatha	1658 230th Road	Hiawatha	Brown	KS	66434	39.84195	-95.496967
Morrill NH3	270 & Coyote Rd.	Morrill	Brown	KS	66515	39.899167	-95.714167
Ag Partners Cooperative, Inc - Powhattan	200 Main Street	Powhattan	Brown	KS	66527	39.759794	-95.631731
Ag Partners Cooperative, Inc - Powhattan NH3	928 180th St.	Powhattan	Brown	KS	66527	39.769209	-95.634151
Ag Partners Cooperative, Inc - Robinson	211 Railroad	Robinson	Brown	KS	66532	39.815218	-95.407483
Ag Partners Cooperative, Inc.-Sabetha	2750 Acorn Road	Sabetha	Brown	KS	66534	39.906353	-95.784425
Ag Partners-Willis	3rd and Hudson	Willis	Brown	KS	66435	39.722856	-95.506570
BENTON	2775 SW Prairie Creek Rd	Benton	Butler	KS	67017	37.788969	-97.118634
Central Ag LLC	14436 NW Hopkins Switch Rd	Burns	Butler	KS	66840	38.0348	-96.9317
City of El Dorado Water Treatment Facility	380 East Central	El Dorado	Butler	KS	67042	37.810556	-96.845000
El Dorado Logistics LLC	1651 S. Haverhill Rd.	El Dorado	Butler	KS	67042	37.799693	-96.881198
El Dorado Operating LLC	1401 South Douglas Road	El Dorado	Butler	KS	67042	37.795586	-96.872062
HollyFrontier El Dorado Refining LLC	1401 South Douglas Road	El Dorado	Butler	KS	67042	37.799722	-96.866667
Mears Fertilizer, Inc.	629 North Industrial Road	El Dorado	Butler	KS	67042	37.824043	-96.909693
ELBING GRAIN LLC	150 East 2nd	Elbing	Butler	KS	67041	38.052446	-97.125776
WHITEWATER	223 S Ash	Whitewater	Butler	KS	67154	37.961745	-97.151941
Farmers Coop Ammonia Plant	1436 S East Ave.	Columbus	Cherokee	KS	66725	37.151486	-94.831523
Farmers Coop Columbus East Ammonia Plant	3637 NE Highway 69	Galena	Cherokee	KS	66739	37.230150	-94.702376
Jayhawk Fine Chemicals Corp.	8545 SE Jayhawk Drive	Galena	Cherokee	KS	66739	37.118611	-94.676944
AGChoice - Weir	9197 NE 50th St.	Weir	Cherokee	KS	66781	37.313342	-94.740413
Bird City, KS 1061	2835 West Highway 36	Bird City	Cheyenne	KS	67731	39.755924	-101.536229
Bird City, KS 1061 Satellite	2870 US Highway 36	Bird City	Cheyenne	KS	67731	39.756666	-101.531798
St Francis Mercantile - North Facility	202 North Benton Street	Saint Francis	Cheyenne	KS	67756	39.780269	-101.800706
St. Francis Mercantile - Nh3 Plt- 12miles South.	12 MI. S on CR14 & 1 MI.W on CR C	St Francis	Cheyenne	KS	67756	39.597912	-101.826951
Ashland Location	2153 CR 20	Ashland	Clark	KS	67831	37.165985	-99.769618
Offerle Coop (Rich)	1269 Hwy 34	Ashland	Clark	KS	67831	37.299009	-99.636288
The Cooperative Elevator & Supply - Engelwood	1 Mi. N. of Engelwood & 3/10 Mi E.	Engelwood	Clark	KS	67840	37.048365	-99.984631
Minneola	414 FRONT STREET	Minneola	Clark	KS	67865	37.444304	-100.017194



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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Central Valley Ag - Clay Center	625 West Court Street	Clay Center	Clay	KS	67432	39.376394	-97.143282
Clay Center, KS 5535	1169 18th Road	Clay Center	Clay	KS	67432	39.382370	-97.171632
Enterprise Clay Center Terminal & Storage	2598 Navajo Road	Clay Center	Clay	KS	67432	39.495218	-97.126880
Central Valley Ag - Clyde	201 Upton	Clyde	Cloud	KS	66938	39.592143	-97.387673
Concordia, KS 5531 Satellite	Vale Road and Highway 81	Concordia	Cloud	KS	66901	39.623488	-97.660936
Concordia, KS 5531 Satellite (East)	601 Industrial Road	Concordia	Cloud	KS	66901	39.573073	-97.630386
GRIDLEY	312 Main Street	Gridley	Coffey	KS	66852	38.097100	-95.881048
Murphy's LLC	PO Box 54	Lebo	Coffey	KS	66856	38.412778	-95.859861
LEROY	505 6TH Street	Leroy	Coffey	KS	66857	38.081216	-95.631214
WAVERLY	2595 Trefoil Road	Waverly	Coffey	KS	66871	38.404173	-95.599903
Coldwater Location	1789 US HWY 160/183	Coldwater	Comanche	KS	67029	37.250169	-99.328668
Protection Location	1558 Rd 4	Protection	Comanche	KS	67127	37.214844	-99.483725
Creekstone Farms Premium Beef, LLC	604 W Goff Industrial Park Road	Arkansas City	Cowley	KS	67005	37.103600	-97.046100
VALLEY Co-Op, INC. - Atlanta	410 Locust Street	Atlanta	Cowley	KS	67008	37.435119	-96.764969
Mulvane Cooperative Union - Rock	401 Hornaday	Rock	Cowley	KS	67131	37.439585	-97.008884
City of Winfield Municipal Water Plant	15250 101st Road	Winfield	Cowley	KS	67156	37.266833	-96.968972
Valley Co-Op, INC. - Hackney	22324, 71st Road	Winfield	Cowley	KS	67156	37.169189	-97.024089
VALLEY Co-Op, INC. - Kellogg	16101 23rd Road	Winfield	Cowley	KS	67156	37.257368	-97.108144
Sugar Creek Packing Co. - Frontenac Plant	1600 West McKay Street	Frontenac	Crawford	KS	66763	37.454254	-94.723132
Mid-West Fertilizer Inc.	330 North 140th	Girard	Crawford	KS	66743	37.547150	-94.851256
Producers Cooperative Association-Girard	164 W. 640TH AVE	Girard	Crawford	KS	66743	37.544153	-94.844377
AGChoice - Hepler	110 West 3rd Street	Hepler	Crawford	KS	66746	37.664171	-94.970650
Mccune Farmers Union Coop Association	708 Main Street	Mccune	Crawford	KS	66753	37.350641	-95.018872
Pittsburg, Kansas Water Treatment Plant	602 South Free Kings Highway	Pittsburg	Crawford	KS	66762	37.402677	-94.670546
Russell Stover Chocolates - Abilene Plant	1993 Caramel Blvd.	Abilene	Dickinson	KS	67410	38.9339	-97.2529
TALMAGE	3006 Fair Road	Talmage	Dickinson	KS	67482	39.03209	-97.259369
Bendena Ag, Inc.	218 Railroad Street	Bendena	Doniphan	KS	66008	39.742490	-95.178808
HB - Bendena	882 Highway 7	Bendena	Doniphan	KS	66008	39.737591	-95.142689
Ag Partners Cooperative, Inc.-Denton	404 Locust	Denton	Doniphan	KS	66017	39.732870	-95.268152
Edwards Chemicals, Inc.	1504 Roseport Road	Elwood	Doniphan	KS	66024	39.746865	-94.889835

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Nor-Am Ice & Cold Storage	1301 Oak St.	Elwood	Doniphan	KS	66024	39.753269	-94.883816
Highland NH3	345 240 Rd.	Highland	Doniphan	KS	66035	39.856321	-95.293923
HB - Leona	1299 Ash Point Road	Robinson	Doniphan	KS	66532	39.798342	-95.325294
Ag Partners Coop - Fanning	1662 Hwy 7	Troy	Doniphan	KS	66087	39.8508	-95.1777
HB - Wathena	2243 Highway 36	Wathena	Doniphan	KS	66090	39.755680	-94.939536
Wathena, KS 1050	310 Boeh Lane	Wathena	Doniphan	KS	66090	39.753337	-94.938047
Tri-District Water Treatment Facility	1239 E300 Rd.	Berryton	Douglas	KS	66409	38.919492	-95.447842
JB Pearl - Lawrence Facility	1685 E 1600 RD	Lawrence	Douglas	KS	66044	38.983335	-95.207658
MIDLAND	1941 Diagonal Road Rear	Midland	Douglas	KS	66046	39.027608	-95.239823
Independent Farm Services	351 E 300 Rd	Overbrook	Douglas	KS	66524	38.7889861	-95.446466
Belpre Location	2675 J RD	Belpre	Edwards	KS	67519	37.955924	-99.100032
Trousdale	2648 T RD	Haviland	Edwards	KS	67059	37.806154	-99.096438
Kinsley, KS 701 Satellite	140th U Road	Kinsley	Edwards	KS	67547	37.791643	-99.322233
Centerview Location	South County Road 35	Lewis	Edwards	KS	67552	37.755443	-99.268905
LEWIS Location	1897 K RD	Lewis	Edwards	KS	67552	37.940852	-99.250947
Offerle Coop (Offerle)	222 E Santa Fe	Offerle	Edwards	KS	67563	37.890169	-99.554594
Ellis Nh3 Plant	10th & Monroe	Ellis	Ellis	KS	67637	38.936894	-99.556085
City of Hays Water Softening Plant	1000 Vine Street	Hays	Ellis	KS	67601	38.867150	-99.317600
Toulon Nh3 Plant	2011 Highway 40	Toulon	Ellis	KS	67601	38.851481	-99.239406
Victoria Nh3 Plant	East Highway 40	Victoria	Ellis	KS	67671	38.852165	-99.133229
Yocemento Nh3 Plant	1558 Yocemento Avenue	Yocemento	Ellis	KS	67601	38.907316	-99.424128
Black Wolf	876 8th Road	Blackwolf	Ellsworth	KS	67490	38.758537	-98.362814
Bushton Complex	777 Avenue Y	Bushton	Ellsworth	KS	67427	38.522073	-98.353109
Ellsworth	100 N. Kansas	Ellsworth	Ellsworth	KS	67439	38.73035	-98.235925
Holyrood	200 E. Sante Fe	Holyrood	Ellsworth	KS	67450	38.588878	-98.403983
Central Prairie Co-Op - Lorraine Facility	101 South Main	Lorraine	Ellsworth	KS	67459	38.566296	-98.316219
Americold, Garden City - Plant # 8407	2007 W. Mary St.	Garden City	Finney	KS	67846	37.99053	-100.893789
Askren Plant	8520 N. Scott Rd	Garden City	Finney	KS	67846	38.073308	-100.718630
Bonanza BioEnergy, LLC	2830 E. U.S. Highway 50	Garden City	Finney	KS	67846	37.958639	-100.836000
Dighton South	21855 East Eddie Road	Garden City	Finney	KS	67846	38.132276	-100.497341



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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Garden City, KS 917 Satellite	2825 East Tennis Road	Garden City	Finney	KS	67846	38.164144	-100.838421
Helena Agri-Enterprises, LLC - Garden City	1004 N. Anderson Road	Garden City	Finney	KS	67846	37.973395	-100.918785
Hi Plains Feed LLC	1650 N. Sherlock Rd.	Garden City	Finney	KS	67846	37.976476	-100.935752
Lowe Fertilizer Plant And Elevator	6915 W. LOWE RD.	Garden City	Finney	KS	67846	38.03546	-100.98956
Plymell South Location	195 E. Craft Road	Garden City	Finney	KS	67846	37.769339	-100.869527
Pride Ag Resources-Garden City	2675 W. Six Mile Rd.	Garden City	Finney	KS	67846	38.062947	-100.910779
Reeve Agri Energy, Inc.	5665 South Old HWY 83	Garden City	Finney	KS	67846	37.880774	-100.884383
Tennis Elevator	2790 W. Tennis Rd.	Garden City	Finney	KS	67846	38.162528	-100.911028
Holcomb, KS	200 West Railroad Avenue	Holcomb	Finney	KS	67851	37.986464	-100.991909
Tyson Fresh Meats, inc. - Finney Co. KS	West Highway 50	Holcomb	Finney	KS	67851	38.000000	-101.026111
The Dodge City Coop ExchaNGE -Kalvesta	33335 STATE RD 156	Kalvesta	Finney	KS	67835	38.058717	-100.277872
Offerle Coop (Bellefont)	10275 Commercial Ave	Bellefont	Ford	KS	67876	37.873304	-99.658933
Bloom Location	309 MAIN STREET	Bloom	Ford	KS	67865	37.487498	-99.897727
Offerle Coop (Bucklin)	610 N. Seacat	Bucklin	Ford	KS	67834	37.553033	-99.634121
Offerle Coop (Tieben)	13169 Marshall Rd	Bucklin	Ford	KS	67834	37.733234	-99.638383
Cargill Meat Solutions	3201 E Highway 400	Dodge City	Ford	KS	67801	37.736454	-99.955897
Koch Fertilizer Dodge City, Llc	11559 East U.S. Highway 50	Dodge City	Ford	KS	67801	37.778300	-99.930740
Lineage Logistics - Dodge City	3105 East Trail Road	Dodge City	Ford	KS	67801	37.736565	-99.960148
National Beef Packing Company, LLC, Dodge City	2000 East Trail Street	Dodge City	Ford	KS	67801	37.748000	-99.984806
Nor-Am Logistics South	2101 E Trail Street	Dodge City	Ford	KS	67801	37.745538	-99.986157
RSA Microtech LLC	510 East Trail Street	Dodge City	Ford	KS	67801	37.750944	-100.011389
The Dodge City Coop Exchange-Howell	10884 102 RD	Dodge City	Ford	KS	67801	37.782582	-100.178069
The Dodge City Coop Exchange-Richland Valley	10996 SADDLE RD.	Dodge City	Ford	KS	67801	37.649300	-100.034602
Wilroads	11769 LARIAT WAY	Dodge City	Ford	KS	67801	37.701337	-99.894002
The Dodge City Coop Exchange-Ford	1101 Prairie	Ford	Ford	KS	67842	37.632278	-99.750177
The Dodge City Coop Exchange-Kingsdown	227 N. Main	Kingsdown	Ford	KS	67858	37.524215	-99.761576
Spearville Location	201 SANTA FE	Spearville	Ford	KS	67876	37.852687	-99.754917
Linde - Dodge City, KS	11547 Highway 50	Wright	Ford	KS	67882	37.778820	-99.933784
Wright	11794 Casey Jones Ave	Wright	Ford	KS	67882	37.783824	-99.887988
OTTAWA NH3	521 N. Locust	Ottawa	Franklin	KS	66067	38.625967	-95.271605

**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Ottawa Water Treatment Plant	301 Beech	Ottawa	Franklin	KS	66067	38.613659	-95.280375
Ottawa Cooperative Association - Leloup Coop	3950 Texas Rd.	Wellsville	Franklin	KS	66092	38.670035	-95.138855
Geary Grain, Inc.	430 East 8th Street	Junction City	Geary	KS	66441	39.030278	-96.822500
Junction City Water Treatment Plant	2101 N. Jackson St.	Junction City	Geary	KS	66441	39.04587	-96.837610
Smithfield Packaged Meats Corp. -Junction City	1920 Lacy Drive	Junction City	Geary	KS	66441	39.002258	-96.866585
Grainfield, KS 5526 Satellite	218 East Front Street	Grainfield	Gove	KS	67737	39.110388	-100.462811
Grinnell, KS 1073	2891 Highway 40	Grinnell	Gove	KS	67738	39.118518	-100.629074
Western Plains Energy LLC	3022 County Road 18	Oakley	Gove	KS	67748	39.121920	-100.735876
Quinter, KS 1074	7085 Highway 40	Quinter	Gove	KS	67752	39.074968	-100.242530
T & T Chemical, Inc.	2554 County Road 76	Quinter	Gove	KS	67752	39.053611	-100.201389
Ryus	6448 South Road X	Satanta	Grant	KS	67870	37.497209	-101.106731
Golden	9957 South Road E	Ulysses	Grant	KS	67880	37.447060	-101.453228
Jayhawk Gas Plant	13201 E. Hwy. 160	Ulysses	Grant	KS	67880	37.561770	-101.121790
Kugler Oil Company - UDF	795 South Road H	Ulysses	Grant	KS	67880	37.570889	-101.401667
Lightcap	9021 East Road 5	Ulysses	Grant	KS	67880	37.677547	-101.198256
Milepost	1659 South Road E	Ulysses	Grant	KS	67880	37.564541	-101.457558
Rock Island	6890 E Rd 5	Ulysses	Grant	KS	67880	37.683092	-101.236259
Stubbs	100 N. Stubbs Road	Ulysses	Grant	KS	67880	37.581536	-101.343686
The Dodge City Coop Exchange -Haggard	19502 Highway 56	Cimarron	Gray	KS	67835	37.633553	-100.321754
The Dodge City Coop Exchange-Cimarron	19034 L Rd.	Cimarron	Gray	KS	67835	37.842184	-100.336548
Winfield United--Cimarron KS	19405 East Highway 50	Cimarron	Gray	KS	67835	37.802778	-100.316972
Copeland, KS 670 Satellite	2502 Highway 56	Copeland	Gray	KS	67837	37.543352	-100.628858
The Dodge City Coop Exchange (Jumbo)	2396 Ii Road	Ensign	Gray	KS	67841	37.503748	-100.234973
The Dodge City Coop Exchange-Ensign	706 Bent	Ensign	Gray	KS	67841	37.655043	-100.230373
The Dodge City Coop Exchange- Ingalls North	10967 D Rd.	Ingalls	Gray	KS	67853	37.957518	-100.482811
The Dodge City Coop Exchange-Ingalls South	15102 11 Rd	Ingalls	Gray	KS	67853	37.794642	-100.468993
Montezuma, KS 708 Satellite	28605 12 Road	Montezuma	Gray	KS	67867	37.597191	-100.455502
The Dodge City Coop Exchange Montezuma	401 W Texcoco	Montezuma	Gray	KS	67867	37.598077	-100.448104
The Dodge City Coop Exchange-Monte North	6050 Y Road	Montezuma	Gray	KS	67867	37.649182	-100.551944
The Dodge City Coop Exchange-Monte South	5999 Hh Rd	Montezuma	Gray	KS	67867	37.518351	-100.561771

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
CHS Inc. - North Plant	1594 K27 and Road D	Tribune	Greeley	KS	67879	38.654265	-101.752916
Tribune, KS 702 Satellite	291 Road 21	Tribune	Greeley	KS	67879	38.656561	-101.660096
Skyland Grain, LLC - South Kendall Plant	11 Miles South & 9 Miles East	Kendall	Hamilton	KS	67857	37.827567	-101.602517
Skyland Grain LLC. - Syracuse North Plant	13 Miles North of Syracuse	Syracuse	Hamilton	KS	67878	38.1753	-101.759267
Skyland Grain, LLC. - Bear Creek Plant	3299 SW CR 1	Syracuse	Hamilton	KS	67878	37.797033	-101.8875
Anthony Farmers Coop-NH3	519 W. Main	Anthony	Harper	KS	67003	37.143094	-98.039880
Mid Kansas Cooperative (Newport Branch)	950 E Ks. Hwy 44	Anthony	Harper	KS	67003	37.155172	-97.865954
Shook	315 SW 55th Ave	Anthony	Harper	KS	67003	37.107155	-98.139201
Spring	673 S Highway 179	Anthony	Harper	KS	67003	37.053722	-98.038525
Mid Kansas Cooperative Bluff City	164 N Argonia Rd.	Argonia	Harper	KS	67004	37.079509	-97.875188
MKC-Danville	324 Ryan Avenue	Danville	Harper	KS	67036	37.288854	-97.894170
Spivey Gas Plant	1500 NW 100th Avenue	Harper	Harper	KS	67058	37.374444	-98.320000
PATTERSON	20920 S.W. 84th	Burrton	Harvey	KS	67020	37.941891	-97.656385
Farmers Cooperative Elevator Co. - Halstead	12306 SW 36TH	Halstead	Harvey	KS	67506	37.999935	-97.523826
Halstead, KS 5549 Satellite	12625 Northwest 12th	Halstead	Harvey	KS	67056	38.056961	-97.528544
Ag Service Inc Hesston	9201 North Emma Creek Road	Hesston	Harvey	KS	67062	38.154182	-97.449701
Future Foam, Inc	1500 South East 6th Street	Newton	Harvey	KS	67114	38.036944	-97.314444
Mission Plant	8029SW 24th	Newton	Harvey	KS	67114	38.011111	-97.459167
SEDGWICK	4TH And Jackson	Sedgwick	Harvey	KS	67135	37.918442	-97.421963
WALTON	100 W South St	Walton	Harvey	KS	67151	38.115952	-97.256735
Copeland, KS 2855 Satellite	2260 70th Road	Copeland	Haskell	KS	67837	37.649511	-100.697477
Copeland, KS 668	498 WW Road	Copeland	Haskell	KS	67837	37.680844	-100.688538
Satanta	810 West US Highway 56	Satanta	Haskell	KS	67870	37.437236	-100.997815
Satanta North	451 Road DD	Satanta	Haskell	KS	67870	37.684987	-101.035899
Sublette Cooperative Inc.- North Satellite Plant	HYW83 And Rd 60	Sublette	Haskell	KS	67877	37.665234	-100.873045
Sublette, KS 775 Satellite	901 West La Lande Avenue	Sublette	Haskell	KS	67877	37.479235	-100.859471
Sublette, KS 794 Satellite	1308 Highway 56	Sublette	Haskell	KS	67877	37.4766415	-100.868543
The Dodge City Coop Exchange-Gray	26920 SE 232 Rd.	Hanston	Hodgeman	KS	67849	38.158809	-99.642850
Jetmore, KS 697	28010 South East F Road	Jetmore	Hodgeman	KS	67854	37.988796	-99.898225
The Dodge City Coop Exchange(Bosse)	31555 SE Hwy 156	Jetmore	Hodgeman	KS	67854	38.087332	-99.834076

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
OFFERLE COOP (Strecker)	14500 S.E. 232 Rd	Offerle	Hodgeman	KS	67563	37.978525	-99.642416
Banner Creek LLC	619 East 4th Street	Holton	Jackson	KS	66436	39.4620972	-95.727500
Holton NH3	K-116 & V. Road	Holton	Jackson	KS	66436	39.461275	-95.645490
Parallel Farms Inc.	18648 286th Rd.	Whiting	Jackson	KS	66552	39.567092	-95.59432
Meriden NH3	201 Dawson	Meriden	Jefferson	KS	66512	39.193288	-95.568845
Oskaloosa, KS	10152 US 59 Highway	Oskaloosa	Jefferson	KS	66066	39.229506	-95.309478
JB Pearl - Perry East	12388 17th Street	Perry	Jefferson	KS	66073	39.073470	-95.367915
Jewell	620 N. Sheridan	Jewell	Jewell	KS	66949	39.676391	-98.152930
Coldpoint Logistics	31301 W 181st St	Edgerton	Johnson	KS	66021	38.799272	-94.949806
EDGERTON	1002 E. 2nd	Edgerton	Johnson	KS	66021	38.760097	-95.009345
Kocher + Beck USA, L.P.	15850 West 99th Street	Lenexa	Johnson	KS	66219	38.9499	-94.769000
Sauer Brands, Inc.	101 Prairie Village Drive	New Century	Johnson	KS	66031	38.827100	-94.901500
Upfield Sourcing US Inc.	27080 West 159th Street	New Century	Johnson	KS	66031	38.840573	-94.897886
ExxonMobil Olathe Grease Plant	1400 South Harrison Street	Olathe	Johnson	KS	66061	38.863459	-94.814595
ITW Professional Brands	805 East Old 56 Highway	Olathe	Johnson	KS	66061	38.866176	-94.809213
Lineage Logistics Olathe, KS Facility	16650 S Erickson Street	Olathe	Johnson	KS	66062	38.829243	-94.847391
Sysco Kansas City, Inc.	1915 Kansas City Road	Olathe	Johnson	KS	66061	38.902083	-94.785000
Tyson Foods Olathe, KS Distribution	20701 West 159TH Street	Olathe	Johnson	KS	66062	38.836389	-94.823611
EIF KC Landfill Gas, LLC	17955 Holliday Dr	Shawnee	Johnson	KS	66217	39.033180	-94.804747
Farmers Union Cooperative-Spring Hill	110 South Frank	Spring Hill	Johnson	KS	66083	38.742500	-94.815278
Skyland Grain, LLC. - North Kendall Plant	11 Miles North & 1 East of Kendall	Kendall	Kearny	KS	67857	38.09	-101.522933
Lakin	1678 Road 140	Lakin	Kearny	KS	67860	37.930165	-101.254190
Lydia	3641 Highway 25	Lakin	Kearny	KS	67860	38.254289	-101.269618
Menno	589 Road 40	Lakin	Kearny	KS	67860	37.777925	-101.454564
Cheney Gas Plant	3120 SE 140th Ave.	Cheney	Kingman	KS	67025	37.603051	-97.862371
Kingman Gas Plant	13433 NE 10th Street	Cheney	Kingman	KS	67025	37.660205	-97.872533
Cunningham NH3 Plant	120 W. Santa Fe	Cunningham	Kingman	KS	67035	37.643515	-98.427988
Farmers Coop Equity - Nashville	110 MAIN	Nashville	Kingman	KS	67112	37.44179	-98.422100
Greensburg Location	320 N. Pine	Greensburg	Kiowa	KS	67054	37.609003	-99.289439
Haviland	604 Cottonwood	Haviland	Kiowa	KS	67059	37.614450	-99.114634

**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Mullinville	220 South Main ST	Mullinville	Kiowa	KS	67109	37.582882	-99.477051
Bartlett Cooperative Association	401 Main	Bartlett	Labette	KS	67332	37.054444	-95.209236
Bartlett Cooperative Association (Mound Valley)	7th and Oak	Mound Valley	Labette	KS	67354	37.208054	-95.402347
Bartlett Coop Assoc. (Oswego)	West 4th Street	Oswego	Labette	KS	67356	37.168808	-95.127004
Mid-West Fertilizer, LLC. - Oswego	12062 US Hwy 59	Oswego	Labette	KS	67356	37.171900	-95.127060
AGChoice Parsons	3205 Boyd St.	Parsons	Labette	KS	67357	37.368699	-95.281081
Parsons Water Treatment Plant	1625 N. Lincoln Street	Parsons	Labette	KS	67357	37.359194	-95.261694
Dighton North	171 N. Hwy 23	Dighton	Lane	KS	67839	38.511510	-100.468969
Water Plant #2	982 N. Highway 5	Lansing	Leavenworth	KS	66043	39.266389	-94.885556
Water Plant #1	1220 N 2nd St.	Leavenworth	Leavenworth	KS	66048	39.330556	-94.912778
Mcgraw Fertilizer Service Inc.	21742 207th Street	Tonganoxie	Leavenworth	KS	66086	39.168023	-95.058888
Central Valley Ag - Lincoln	South First Street	Lincoln	Lincoln	KS	67455	39.035249	-98.142822
Beachner Grain, Inc.	210 S. Commercial	Lacygne	Linn	KS	66040	38.343957	-94.761537
LaCygne Generating Station	25166 East 2200 Road	Lacygne	Linn	KS	66040	38.348500	-94.645400
Oakley, KS	3013 County Road 450	Oakley	Logan	KS	67748	39.123615	-100.838298
Oakley, KS 763	526 Prospect Avenue	Oakley	Logan	KS	67748	39.124083	-100.843902
Winona, KS 1362 Satellite	SE of NE 6-11-37	Winona	Logan	KS	67764	39.129585	-101.350125
Emporia Water Treatment Plant	2910 West 24th Avenue	Emporia	Lyon	KS	66801	38.429427	-96.217474
F & F Feeds, Inc.	2700 W. South Avenue	Emporia	Lyon	KS	66801	38.398566	-96.214945
Tyson Fresh Meats, Inc-Emporia, KS	2101 West 6th	Emporia	Lyon	KS	66801	38.402778	-96.211113
Hartford, KS Satellite	Road Y5	Hartford	Lyon	KS	66854	38.300013	-95.958621
Reading, KS	2080 Highway 56	Reading	Lyon	KS	66868	38.652789	-95.989562
BURNS	EAST Broadway & Hwy 77	Burns	Marion	KS	66840	38.090707	-96.880551
Ag Service Inc.	1830 Kanza	Hillsboro	Marion	KS	67063	38.3368857	-97.168879
AGRI TRAILS Coop (Lincolnville)	6TH Street	Lincolnville	Marion	KS	66858	38.493213	-96.955782
Cooperative Grain & Supply - Marion	320 S. Third	Marion	Marion	KS	66861	38.344874	-97.018964
PEABODY	202 S Maple	Peabody	Marion	KS	66866	38.163601	-97.103030
AGRI TRAILS Coop. (Tampa)	205 MAIN Street	Tampa	Marion	KS	67483	38.545526	-97.155223
Ag Partners - Axtell NH3	850 Highway 99	Axtell	Marshall	KS	66403	39.892103	-96.350373
Farmers Cooperative - Beattie	203 HAMILTON Street	Beattie	Marshall	KS	66406	39.859659	-96.417853

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Farmers Cooperative - Blue Rapids	11th and Main	Blue Rapids	Marshall	KS	66411	39.674982	-96.661639
Farmers Cooperative - Frankfort Agronomy	2088 Tumbleweed Road	Frankfort	Marshall	KS	66427	39.711809	-96.431250
Farmers Cooperative - Frankfort South	402 W 2ND Street	Frankfort	Marshall	KS	66427	39.706622	-96.426682
Helena Agri-Enterprises, LLC - Home, KS	1632 Pony Express Highway	Home	Marshall	KS	66438	39.843199	-96.514203
Farmers Cooperative - Marietta	104 MAIN Street	Marietta	Marshall	KS	66518	39.942886	-96.609965
Farmers Cooperative - Herkimer	875 6th Road	Marysville	Marshall	KS	66508	39.889525	-96.714697
Farmers Cooperative - Summerfield	115 6th St.	Summerfield	Marshall	KS	66541	39.999849	-96.353791
Ag Partners Coop-Vliets	405 Main St.	Vliets	Marshall	KS	66544	39.715276	-96.332033
Farmers Cooperative - Waterville	601 E. Hwy 9	Waterville	Marshall	KS	66548	39.688939	-96.739999
Cooperative Grain & Supply - Canton East	27TH Street & Highway 56	Canton	Mcpherson	KS	67428	38.375833	-97.427000
Galva	101 N Main	Galva	Mcpherson	KS	67443	38.384749	-97.537937
Galva, KS 5547	644 22nd Avenue	Galva	Mcpherson	KS	67443	38.266500	-97.516832
Groveland	1066 Comanche Rd	Inman	Mcpherson	KS	67546	38.290065	-97.731149
Lindsborg	312 E Lincoln	Lindsborg	Mcpherson	KS	67456	38.573838	-97.671100
Marquette	504 Washington	Marquette	Mcpherson	KS	67464	38.558599	-97.837154
Chemstar Products Company - McPherson Facility	503 West Hayes	Mcpherson	Mcpherson	KS	67460	38.364991	-97.673211
CHS Conway Terminal	775 Landmark Lane	Mcpherson	Mcpherson	KS	67460	38.369028	-97.782778
CHS McPherson Refinery Inc.	1391 Iron Horse Road	Mcpherson	Mcpherson	KS	67460	38.346806	-97.671361
Conway LPG Storage Facility	661 Highway 56	Mcpherson	Mcpherson	KS	67460	38.37333	-97.803176
DI Manufacturing LLC	1144 Bridger Court	Mcpherson	Mcpherson	KS	67460	38.356922	-97.684064
ISOM Plant	462 U.S. Highway 56 West	Mcpherson	Mcpherson	KS	67460	38.37990	-97.839050
Koch Fertilizer, LLC - Conway Terminal	1451 5th Avenue	Mcpherson	Mcpherson	KS	67460	38.383639	-97.839472
MCFS Conway Underground East	839 Kiowa Road	Mcpherson	Mcpherson	KS	67460	38.214369	-97.461361
MCFS Conway West Underground	1426 5th Ave., Bldg 3	Mcpherson	Mcpherson	KS	67460	38.381667	-97.819444
Mid-Continent Fractionation and Storage Conway Fra	1407 Fifth Avenue	Mcpherson	Mcpherson	KS	67460	38.377500	-97.833056
NuStar Energy LP - McPherson Station	1152 14th Ave.	Mcpherson	Mcpherson	KS	67460	38.340931	-97.664344
Moundridge	245 Homestead Trail	Moundridge	Mcpherson	KS	67107	38.209401	-97.530385
Wildhorse	3239 4 Road	Copeland	Meade	KS	67837	37.431850	-100.598958
Fowler	216 E. Old Hwy 54	Fowler	Meade	KS	67844	37.378572	-100.193427



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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
The Cooperative Elevator & Supply - Edwards	3/4 Mi So. Of Road Intersect C & 20	Meade	Meade	KS	67864	37.437956	-100.306656
The Cooperative Elevator & Supply - Meade	N. Fowler Street	Meade	Meade	KS	67864	37.293571	-100.341393
The Cooperative Elevator & Supply - Missler	11162 13 Road	Meade	Meade	KS	67864	37.318108	-100.434839
Minneola -West Location	2mi. North 7.5 Mi. West On A Road	Minneola	Meade	KS	67865	37.474721	-100.153387
The Dodge City Coop Exchange-Alvi	5020 13 Rd	Montezuma	Meade	KS	67867	37.416067	-100.433707
Hobart	13160 8 Road	Plains	Meade	KS	67869	37.290961	-100.522378
Plains	206 E. Indiana	Plains	Meade	KS	67869	37.259568	-100.585932
Plains, KS 768 Satellite	Madison Street	Plains	Meade	KS	67869	37.264342	-100.579136
Guetterman Brothers Elevator, Inc.	409 South Street	Bucyrus	Miami	KS	66013	38.722758	-94.712724
Beachner Grain, Inc.	820 W Peoria	Paola	Miami	KS	66071	38.571389	-94.890000
Paola Terminal	25760 W 343rd Street	Paola	Miami	KS	66071	38.504949	-94.885231
City Of Gardner, Hillsdale Water Treatment Plant	22705 South Moonlight Road	Spring Hill	Miami	KS	66083	38.716032	-94.904784
Beloit, Ks 5533 Satellite	1212 East Cottonwood Street	Beloit	Mitchell	KS	67420	39.453163	-98.094981
Central Valley Ag - Beloit Fertilizer	1101 Cottonwood St	Beloit	Mitchell	KS	67420	39.453974	-98.096051
Central Valley Ag - Tipton	108 Washington St	Tipton	Mitchell	KS	67485	39.336132	-98.466214
Coffeyville Resources Nitrogen Fertilizers, L.L.C.	701 East Martin Street	Coffeyville	Montgomery	KS	67337	37.046472	-95.600750
Coffeyville Resources Refining & Marketing, LLC	400 North Linden Street	Coffeyville	Montgomery	KS	67337	37.050556	-95.602222
Coffeyville, Kansas Water Treatment Plant	1702 North River Road	Coffeyville	Montgomery	KS	67337	37.061402	-95.636103
Tessengerlo Kerley, Inc. - Coffeyville Facility	515 N. Laurel St.	Coffeyville	Montgomery	KS	67337	37.048587	-95.611253
Water Treatment Plant	520 E. Oak	Independence	Montgomery	KS	67301	37.236285	-95.699745
Mid-West Fertilizer, Llc. - Liberty	5136 Cr 3420	Liberty	Montgomery	KS	67351	37.155596	-95.593379
Agri Trails Coop - White City	501 N. Commercial Street	White City	Morris	KS	66872	38.800633	-96.734008
Ag Partners Coop - Baileyville	388 U.S. Hwy 36	Baileyville	Nemaha	KS	66404	39.840823	-96.189077
Helena Agri-Enterprises, LLC - Bern, KS Facility	2839 O Road	Bern	Nemaha	KS	66408	39.962384	-95.978001
Ag Partners Coop - Centralia	404 South 4th St.	Centralia	Nemaha	KS	66415	39.722223	-96.130528
Helena Agri-Enterprises, LLC - Centralia KS Fac	806 East State Hwy 9	Centralia	Nemaha	KS	66415	39.723794	-96.105925
Ag Partners Coop - Corning	754 State Hwy 63	Corning	Nemaha	KS	66417	39.661258	-96.032554
Ag Partners Coop-Seneca	223 E. Main	Seneca	Nemaha	KS	66538	39.836044	-96.052383
Heinen Bros Agra Service Inc.	1226 104th Rd	Seneca	Nemaha	KS	66538	39.742134	-96.034595
Helena Agri-Enterprises, LLC - Seneca, KS Facility	1301 Baltimore Street	Seneca	Nemaha	KS	66538	39.833365	-96.073356

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Beachner Grain, Inc. - Chanute	401 W. 21st	Chanute	Neosho	KS	66720	37.657065	-95.460835
Mid-West Fertilizer, LLC. - Chanute	1971 South Country Club Rd	Chanute	Neosho	KS	66720	37.661600	-95.489500
Beachner Grain, Inc. - NV	15050 Hwy 47	Erie	Neosho	KS	66733	37.515998	-95.268646
Mid-West Fertilizer, LLC. - Thayer	4151 80th Road	Thayer	Neosho	KS	66776	37.483837	-95.468128
The Dodge City Cooperative- Beeler	101 S. Main	Beeler	Ness	KS	67518	38.442944	-100.196649
Ness City	917 West Sycamore Street	Ness City	Ness	KS	67560	38.452015	-99.916804
Burlingame South Nh3	6795 W. 181st Street	Burlingame	Osage	KS	66413	38.740137	-95.838127
AGChoice Osage City	426 North 3rd Street	Osage City	Osage	KS	66523	38.638326	-95.830049
OVERBROOK	102 Oak Street	Overbrook	Osage	KS	66524	38.775951	-95.558984
S&M Farms	5852 E 125th	Overbrook	Osage	KS	66524	38.842392	-95.553764
Alton Elevator	2574 W 65th Drive	Alton	Osborne	KS	67623	39.472314	-98.966796
Downs Elevator	614 Railroad	Downs	Osborne	KS	67437	39.5097655	-98.530046
Natoma Nh3 Plant	613 N. 1st Street	Natoma	Osborne	KS	67651	39.184736	-99.009840
Osborne Elevator - West Plant	1251 West Highway 24	Osborne	Osborne	KS	67473	39.451503	-98.721759
Portis Elevator	219 Market Street	Portis	Osborne	KS	67474	39.567819	-98.705184
Delphos Cooperative Association	413 W. 1ST Street	Delphos	Ottawa	KS	67436	39.271390	-97.770559
Golden Valley, Inc. - Burdett	302 Locust	Burdett	Pawnee	KS	67523	38.192039	-99.524694
Golden Valley, Inc, Sanford	1338 U.S. Hwy 183	Larned	Pawnee	KS	67550	38.182140	-99.315457
Great Bend Cooperative Association-Pawnee Rock	317 Pawnee Ave.	Pawnee Rock	Pawnee	KS	67567	38.268275	-98.973803
Golden Valley, Inc. - Rozel	101 Santa Fe	Rozel	Pawnee	KS	67574	38.193130	-99.400526
Agra NH3 Plant	671 Railroad Ave	Agra	Phillips	KS	67621	39.763608	-99.114623
Glade Staging Area	984 Central	Glade	Phillips	KS	67637	39.679173	-99.308521
Kirwin NH3 Plant	222 NE 4th	Kirwin	Phillips	KS	67644	39.675880	-99.116363
LOGAN NH3 Plant	306 E. Main	Logan	Phillips	KS	67646	39.661470	-99.559096
Gretna NH 3 Plant	624 E Quail Rd	Phillipsburg	Phillips	KS	67661	39.763645	-99.212804
PHILLIPSBURG NH3 Plant	788 2nd Street	Phillipsburg	Phillips	KS	67661	39.768554	-99.328342
Prairie Horizon Agri-Energy, LLC	1664 East 100 Road	Phillipsburg	Phillips	KS	67661	39.760046	-99.304262
PRAIRIE VIEW NH3 Plant	1183 Railroad Street	Prarie View	Phillips	KS	67664	39.830024	-99.573004
Manhattan	3384 Excel Road	Manhattan	Pottawatomie	KS	66502	39.192278	-96.504278
Onaga	401 OAK DRIVE	Onaga	Pottawatomie	KS	66521	39.479751	-96.175650



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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
JB PEARL SALES & SERVICE	27425 W HWY 24	St Marys	Pottawatomie	KS	66536	39.196844	-96.077741
Ag Partners - St. Marys	805 W Bertrand	St. Marys	Pottawatomie	KS	66536	39.195671	-96.074721
Jeffrey Energy Center	25905 Jeffrey Road	St. Marys	Pottawatomie	KS	66536	39.287828	-96.122094
Ag Partners Coop-Wamego Nh3	200 West Valley Street	Wamego	Pottawatomie	KS	66547	39.199721	-96.296317
JB Pearl-Onaga Road Facility	6005 Onaga Road	Wamego	Pottawatomie	KS	66547	39.238984	-96.230092
Westmoreland	203 S Highway 99	Westmoreland	Pottawatomie	KS	66549	39.390364	-96.408059
Kanza Coop, Byers Branch	1 M. North, 2 M. West Of Byers, Ks	Byers	Pratt	KS	67021	37.805354	-98.904671
KANZA COOP-COATS	507 MAIN ST	Coats	Pratt	KS	67028	37.509876	-98.828886
Cairo NH3 Plant	100 Cairo Main Street	Cunningham	Pratt	KS	67035	37.652122	-98.556090
Kanza Cooperative Association - Iuka Plant	50132 N. Highway 281	Iuka	Pratt	KS	67066	37.722823	-98.737151
Great Plains	30211 Nw 70th Ave	Pratt	Pratt	KS	67124	37.694557	-98.867225
Kanza Coop, Randle Branch	17 Sw 40th Street	Pratt	Pratt	KS	67124	37.586901	-98.740514
Farmers Coop Equity - Sawyer	214 S. Carter	Sawyer	Pratt	KS	67134	37.496973	-98.679490
Buhler	101 S Main	Buhler	Reno	KS	67522	38.129970	-97.764485
Haven	112 W 2nd St	Haven	Reno	KS	67543	37.905309	-97.773967
Haven Gas Plant	13114 South Kent Road	Haven	Reno	KS	67543	37.904288	-97.810105
Dillons Distribution Center	2700 East 4th Avenue	Hutchinson	Reno	KS	67501	38.060081	-97.879731
Hutchinson Rail Terminal	407 S. Obee Rd	Hutchinson	Reno	KS	67501	38.048461	-97.858484
Hutchinson Storage Facility	2610 South Mohawk Road	Hutchinson	Reno	KS	67501	38.021500	-97.992861
Jackson Dairy	2600 East 4th Street	Hutchinson	Reno	KS	67504	38.058987	-97.884096
ONEOK Hydrocarbon, L.P.- Hutchinson Fractionator	1910 South Broadacres Road	Hutchinson	Reno	KS	67501	38.029260	-97.976840
Tyson Prepared Foods - Hutchinson, KS	521 South Main	Hutchinson	Reno	KS	67501	38.045078	-97.933212
Central Prairie Co-Op - Adams Corner	404 N. Nickerson Rd.	Nickerson	Reno	KS	67561	38.032787	-98.051957
Macrosource, LLC - Nickerson	218 East Highway 96	Nickerson	Reno	KS	67561	38.142500	-98.077500
Tyson Prepared Foods - South Hutchinson, KS	9 North Washington Street	South Hutchinson	Reno	KS	67505	38.029345	-97.942749
Reno County Gas Processing Plant	SE 1/4 Section 33, Township 25	Turon	Reno	KS	67583	37.825287	-98.425052
Central Valley Ag - Bellville	1200 180 Rd	Belleville	Republic	KS	66935	39.813187	-97.615524
Rural Gas, Inc.	201 "M" Street	Belleville	Republic	KS	66935	39.840322	-97.631338
Central Valley Ag - Courtland	West Pershing	Courtland	Republic	KS	66939	39.781676	-97.901132

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Courtland, KS 5536	261 Queen Road	Courtland	Republic	KS	66939	39.784070	-97.902222
Nesika Energy, Llc	1020 70 Road	Scandia	Republic	KS	66966	39.787417	-97.824444
Central Prairie Co-Op - Alden Facility	100 S. Pioneer	Alden	Rice	KS	67512	38.158744	-98.183089
Viper Rail Car Storage, Inc.	One RR Ave	Alden	Rice	KS	67512	38.241419	-98.310267
Central Prairie Co-Op - Bushton Facility	140 6th Rd	Bushton	Rice	KS	67427	38.305373	-98.233564
Central Prairie Co-Op - Chase Facility	839 Us Highway 56	Chase	Rice	KS	67524	38.205382	-98.203044
Central Prairie Co-Op - Frederick Facility	405 First Street	Frederick	Rice	KS	67444	38.305425	-98.155823
Kansas Ethanol, LLC	1630 Avenue Q	Lyons	Rice	KS	67554	38.284915	-98.194238
Mcfs Mitchell	1145 23rd	Lyons	Rice	KS	67554	38.376389	-98.080833
Central Prairie Co-Op - Sterling HuB	1775 Highway 14	Sterling	Rice	KS	67579	38.163812	-98.121598
Jacam Manufacturing 2013 LLC	1656 Avenue Q	Sterling	Rice	KS	67579	38.289559	-98.1916618
Rice County	1856 State Hwy 14	Sterling	Rice	KS	67579	38.267494	-98.200272
Palco -- Nh3 Plant	104 South Main	Palco	Rooks	KS	67657	39.249516	-99.557070
Plainville Nh3 Plant	East Highway 18	Plainville	Rooks	KS	67663	39.232866	-99.286879
Farmers Union Mercantile & Shipping Association	ROAD 5 & J	Stockton	Rooks	KS	67669	39.436900	-99.529870
Farmers Union Mercantile & Shipping Association	1027 17 Road	Stockton	Rooks	KS	67669	39.427298	-99.304889
Woodston NH3 Facility	1110 Elevator Road	Woodston	Rooks	KS	67675	39.455923	-99.089110
Zurich Nh3 Plant	502 South Main	Zurich	Rooks	KS	67676	39.229612	-99.436009
Alexander -- Nh3 Plant	200 West K-96	Alexander	Rush	KS	67513	38.466917	-99.556073
Bison -- Nh3 Plant	100 N. Main	Bison	Rush	KS	67520	38.523998	-99.199159
Liebenthal -- Nh3 Plant	R.R.	Liebenthal	Rush	KS	67553	38.670338	-99.316998
Mccracken -- Nh3 Plant	Hwy 4 and Railroad Avenue	Mccracken	Rush	KS	67556	38.582350	-99.571862
Otis -- Nh3 Plant	3RD Mary Street	Otis	Rush	KS	67565	38.536471	-99.045134
Rush Center -- Nh3 Plant	819 West Union	Rush Center	Rush	KS	67575	38.467354	-99.318437
Timken -- Nh3 Plant	300 N. Railroad Ave.	Timken	Rush	KS	67575	38.473834	-99.174013
Dorrance NH3 Plant	601 K-231 Highway	Dorrance	Russell	KS	67634	38.846605	-98.584953
Gorham Nh3 Plant	129 Clifford	Gorham	Russell	KS	67640	38.881593	-99.019884
Lucas NH3 Plant East	300 S. Harvest	Lucas	Russell	KS	67648	39.052997	-98.526496
Luray Elevator - West Plant	West K-18 Highway	Luray	Russell	KS	67649	39.117500	-98.699167
PARADISE GRAIN CO., INC.	102 E. AVE "E"	Paradise	Russell	KS	67658	39.112778	-98.915972

**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
PureField Ingredients, LLC	1224 East 15th Street	Russell	Russell	KS	67665	38.898751	-98.839936
Russell - Nurse Tank Location	10th & Fossil	Russell	Russell	KS	67665	38.894725	-98.854796
Russell NH3 Plant	1.5 Miles N. Hwy 281	Russell	Russell	KS	67665	38.913140	-98.853855
Gypsum	515 EAST 6TH	Gypsum	Saline	KS	67448	38.703480	-97.421079
Salina Water Treatment Plant	401 South Fifth Street	Salina	Saline	KS	67401	38.832778	-97.607500
Schwan's Logistics Llc	3150 Centennial Rd	Salina	Saline	KS	67401	38.781104	-97.634580
Sfc Global Supply Chain, Inc	3105 Arnold Avenue	Salina	Saline	KS	67401	38.782330	-97.636690
Sfc Global Supply Chain, Inc.	3019 Scanlan Avenue	Salina	Saline	KS	67401	38.783611	-97.635556
Compton NH3 Plant	8990 N. Taos Road	Scott City	Scott	KS	67871	38.612872	-100.760066
Scott Cooperative Association - Pence	11890 N. Cherokee Rd.	Scott City	Scott	KS	67871	38.654013	-101.072775
Scott Cooperative Association - Scott City	206 Wayne St.	Scott City	Scott	KS	67871	38.485773	-100.895981
ANDALE	5742 N 247th West	Andale	Sedgwick	KS	67001	37.785753	-97.625031
Farmers Cooperative Elevator Company-Cheney	71st Street and 407 West	Cheney	Sedgwick	KS	67025	37.561210	-97.807134
Clearwater Coop	9700 S 135th W	Clearwater	Sedgwick	KS	67026	37.516208	-97.496166
Farmers Cooperative Elevator Company - Clonmel	7115 S. 183rd Street West	Clonmel	Sedgwick	KS	67149	37.563122	-97.553673
COLWICH	143 N. Colorado	Colwich	Sedgwick	KS	67030	37.784507	-97.540415
Element, LLC	1 Element Drive	Colwich	Sedgwick	KS	67030	37.785792	-97.530169
Farmers Cooperative Elevator Company-Garden Plain	401 N. Main	Garden Plain	Sedgwick	KS	67050	37.650592	-97.683715
Evonik Corporation	6601 South Ridge Rd	Haysville	Sedgwick	KS	67060	37.574167	-97.426111
Worthington Cylinders Kansas, LLC	5605 North 119th Street West	Maize	Sedgwick	KS	67101	37.783900	-97.481400
Farmers Cooperative Elevator Company - Anness	11430 Anness Road	Milton	Sedgwick	KS	67601	37.481872	-97.728577
Farmer Cooperative Elevator Co. - Mt. Hope	9800 N. 279th W.	Mount Hope	Sedgwick	KS	67108	37.861851	-97.664314
Farmers Coop Elevator Company - Bentley	15802 W 109TH ST. N	Sedgwick	Sedgwick	KS	67135	37.884255	-97.525382
Furley	10745 Avenue F (In Furley)	Valley Center	Sedgwick	KS	67147	37.879871	-97.213942
Americold, Wichita # 5113	2707 N. Mead	Wichita	Sedgwick	KS	67219	37.732393	-97.328266
ARDENT MILLS, LLC	715 East 13th Street North	Wichita	Sedgwick	KS	67214	37.70806	-97.32941
Brenntag Southwest, Inc. Wichita	1520 North Barwise	Wichita	Sedgwick	KS	67214	37.710556	-97.329444
Dold Foods, LLC	2929 N. Ohio Street	Wichita	Sedgwick	KS	67219	37.73667	-97.325640
DPC Enterprises, L.P.	3105 North Mead Street	Wichita	Sedgwick	KS	67219	37.7406	-97.329200

**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Hiland Dairy Foods - Wichita	700 East Central Avenue	Wichita	Sedgwick	KS	67202	37.693640	-97.329510
Occidental Chemical Corporation - Wichita Plant	6200 S. Ridge Rd.	Wichita	Sedgwick	KS	67215	37.581667	-97.425278
Smithfield Packaged Meats Corp. - Wichita, KS	2323 S. Sheridan	Wichita	Sedgwick	KS	67213	37.651950	-97.381912
Water Treatment Plant	1815 W Pine St.	Wichita	Sedgwick	KS	67203	37.695649	-97.361895
Wichita Terminal	2400 East 37th Street North	Wichita	Sedgwick	KS	67219	37.758172	-97.306792
Kismet, KS 2883 Satellite	26541 Road O	Kismet	Seward	KS	67859	37.366856	-100.814021
Arkalon Ethanol, LLC	8664 Road P	Liberal	Seward	KS	67901	37.106580	-100.800572
City of Liberal Domestic Waste Treatment Plant	Highway 83	Liberal	Seward	KS	67901	37.056730	-100.902453
National Beef Packing Company, LLC, Liberal	1501 E. 8th Street	Liberal	Seward	KS	67901	37.052611	-100.899500
National Helium Plant	15 miles E on Hwy 54, 1 1/2 miles N.	Liberal	Seward	KS	67901	37.159222	-100.762139
Perryton Equity- Liberal, Kansas	140 S. Kansas	Liberal	Seward	KS	67901	37.036192	-100.924517
West Plant	15489 Rd 20	Plains	Seward	KS	67869	37.271954	-100.807031
Satanta South	27915 Road H	Satanta	Seward	KS	67870	37.373782	-100.941191
Ag Partners Coop - Rossville	5548 Northwest Bailey Road	Rossville	Shawnee	KS	66533	39.150009	-95.979622
JB Pearl-Sandy Hook Facility	6200 NW Maple Hill Rd.	St. Marys	Shawnee	KS	66536	39.158211	-96.027652
Futamura USA, Inc.	6000 SE 2nd Street	Tecumseh	Shawnee	KS	66542	39.053322	-95.559722
JB Pearl - Menoken Rd.	5523 NW 25th St.	Topeka	Shawnee	KS	66618	39.093647	-95.751107
Mars Wrigley Confectionery, LLC	100 Mars Blvd	Topeka	Shawnee	KS	66619	38.932437	-95.6926
Reser's Fine Foods, Inc. - Crossroads Facility	3728 SE 6th St.	Topeka	Shawnee	KS	66607	39.046305	-95.616319
Reser's Fine Foods, Inc. - Deer Creek Facility	3215 SE 6th St	Topeka	Shawnee	KS	66607	39.044167	-95.631667
Reser's Fine Foods, Inc. - Topeka Distribution	3121 SE 6th Avenue	Topeka	Shawnee	KS	66607	39.043962	-95.63588
Reser's Fine Foods, Inc. - Topeka MSB Facility	3167 SE 10th Street	Topeka	Shawnee	KS	66607	39.036944	-95.635806
Topeka Water Treatment Plant	3245 Waterworks Drive	Topeka	Shawnee	KS	66606	39.070556	-95.717222
U.S. Foods, Inc. - Topeka	4725 NW US Hwy 24	Topeka	Shawnee	KS	66618	39.088759	-95.734596
Hoxie, KS 5523	2171 West Road 20N	Hoxie	Sheridan	KS	67740	39.379902	-100.484129
Hoxie, KS 5523 Satellite	North of Intersection 60N & 100E	Hoxie	Sheridan	KS	67740	39.443663	-100.254734
Goodland, KS 1063	1047 West Highway 24	Goodland	Sherman	KS	67735	39.338418	-101.886130
Goodland, KS 683 Satellite	1402 West Industrial Street	Goodland	Sherman	KS	67735	39.343938	-101.730176
Athol NH3	205 Railway	Athol	Smith	KS	66932	39.763602	-98.923372
Cedar NH3	24061 H Road	Cedar	Smith	KS	67628	39.660164	-98.935638

**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Kensington NH3 Plant	228 S. Main	Kensington	Smith	KS	66951	39.763793	-99.030856
Lebanon Elevator - South Plant	South Highway 281 - South Plant	Lebanon	Smith	KS	66952	39.804444	-98.560000
Smith Center NH3 Plant	907 South Monroe Street	Smith Center	Smith	KS	66967	39.765402	-98.790959
Smith Center, KS 3901	15092 190 Road	Smith Center	Smith	KS	66967	39.742912	-98.787444
Macksville, KS 2212 Satellite	Rural Route 1	Macksville	Stafford	KS	67557	37.963480	-98.973944
Kanza Coop, Stafford South Elevator	700 S. Main Street	Stafford	Stafford	KS	67578	37.954131	-98.599750
Kanza Coop, Zenith Branch	2 Blks N. of US 50 Highway	Zenith	Stafford	KS	67578	37.959428	-98.496522
Big Bow Facility	951 S. Big Bow Grade	Big Bow	Stanton	KS	67855	37.562870	-101.559880
Johnson Facility	604 E. Highland Ave	Johnson	Stanton	KS	67855	37.562745	-101.743976
Manter Facility	206 Railway	Manter	Stanton	KS	67862	37.521203	-101.887144
G+ Ag Inc	1114 Road A	Hugoton	Stevens	KS	67951	36.998061	-101.372262
Hugoton	505 1/2 Northwest Avenue	Hugoton	Stevens	KS	67951	37.182832	-101.356898
Hugoton Station	1400 Cemetery Rd.	Hugoton	Stevens	KS	67951	37.166958	-101.326539
Hugoton West	1586 West 10th Street	Hugoton	Stevens	KS	67951	37.173321	-101.386806
Moscow	2380 Road 20	Moscow	Stevens	KS	67953	37.326227	-101.212249
Perryton Equity Exchange- Prairieola, Kansas	NW Corner County Roads J and 26	Prairieola	Stevens	KS	67951	37.112500	-101.105000
Mid Kansas Cooperative Argonia	164 N. Argonia Rd.	Argonia	Sumner	KS	67004	37.278134	-97.763223
Farmers Cooperative Grain Association	125 S. Lincoln	Belle Plaine	Sumner	KS	67013	37.388062	-97.279605
Farmers Grain Company-Caldwell	102 N. Arapahoe	Caldwell	Sumner	KS	67022	37.034323	-97.603966
Farmers Coop Grain Association-Conway Springs	524 E. Parallel	Conway Springs	Sumner	KS	67031	37.388676	-97.633239
GEUDA SPRINGS	100 West Grain Avenue	Geuda Springs	Sumner	KS	57051	37.105206	-97.151194
Mid Kansas Cooperative- Mayfield	169 S. Chicaskia Rd	Mayfield	Sumner	KS	67103	37.261286	-97.587502
Mulvane Coop	220 West Poplar	Mulvane	Sumner	KS	67110	37.471670	-97.244670
New Haven	516 E 140th St South	South Haven	Sumner	KS	67104	37.088300	-97.399300
City of Wellington, KS Water Treatment Plant	511 S.W. Lake rd	Wellington	Sumner	KS	67152	37.208333	-97.533333
Progressive Ag Cooperative Association-	9011 N 'A' St	Wellington	Sumner	KS	67152	37.306864	-97.394379
CHS Inc. - Colby	2122 US Hwy E. 24	Colby	Thomas	KS	67701	39.391973	-101.013654
Colby, KS 5520 Satellite	1525 Willard Street	Colby	Thomas	KS	67701	39.376080	-101.032613
Menlo, KS 1067 Satellite	100 North 5th	Menlo	Thomas	KS	67753	39.354272	-100.724079
Rexford, KS 1067	2525 County Road 36	Rexford	Thomas	KS	67753	39.483082	-100.738796

**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Alta Vista	607 Washington	Alta Vista	Wabaunsee	KS	66834	38.877927	-96.474843
Harveyville Seed Co., Inc	100 Main St.	Harveyville	Wabaunsee	KS	66431	38.794307	-95.960272
Weskan, KS 683 Satellite	SE 1/4 of 5-15-41	Weskan	Wallace	KS	67762	38.779739	-101.891079
Hoover's Inc.	309 2nd Street	Greenleaf	Washington	KS	66943	39.730833	-96.978333
Haddam, KS 5539 Satellite	204 Deer Road	Haddam	Washington	KS	66944	39.865520	-97.294619
Farmers Cooperative - Hanover	498 West North St.	Hanover	Washington	KS	66945	39.896049	-96.883285
Central Valley Ag - The Junction	1791 10th Road	Linn	Washington	KS	66953	39.7141998	-97.050366
Mahaska, KS 5539 Satellite	101 North Main	Mahaska	Washington	KS	66955	39.991016	-97.354418
Palmer Grain, Inc.	Palmer Ave	Palmer	Washington	KS	66962	39.632357	-97.126263
Leoti, KS 702	505 North 4th Street	Leoti	Wichita	KS	67861	38.485938	-101.354116
Scott Cooperative Association - Marienthal	100 Marienthal Rd.	Marienthal	Wichita	KS	67863	38.485880	-101.221440
Beachner Grain Inc.- Fredonia	731 E Fillmore Street	Fredonia	Wilson	KS	66736	37.544889	-95.824981
SEK Coop Inc	West Washington	Fredonia	Wilson	KS	66736	37.528361	-95.834924
Systech Environmental Corporation	1420 South Cement Road	Fredonia	Wilson	KS	66736	37.508064	-95.823967
Airosol Co. Inc.	1101 Illinois Street	Neodesha	Wilson	KS	66757	37.421667	-95.687500
Beachner Grain, Inc.-Neodesha	10th & Mill St.	Neodesha	Wilson	KS	66757	37.414198	-95.684985
Piqua Farmers Cooperative Assn.	1st & Washington	Piqua	Woodson	KS	66761	37.920856	-95.533240
Yates Center	700 West Rutledge	Yates Center	Woodson	KS	66783	37.881191	-95.743337
Lineage Logistics - Edwardsville	2441 S 98 St Ste B	Edwardsville	Wyandotte	KS	66111	39.057721	-94.804438
Airgas Specialty Products Inc., Kansas City, KS	2500 State Line Road	Kansas City	Wyandotte	KS	66103	39.082778	-94.609167
Associated Wholesale Grocers, Inc.	5000 Kansas Avenue	Kansas City	Wyandotte	KS	66106	39.091222	-94.691417
Hansen Water Treatment Plant	7601 Holliday Drive	Kansas City	Wyandotte	KS	66106	39.053536	-94.754661
Harcros Chemicals Inc. - Kansas City	5200 Speaker Rd.	Kansas City	Wyandotte	KS	66106	39.09908	-94.697060
Kansas City Steak Company	100 S. Osage Ave	Kansas City	Wyandotte	KS	66105	39.085747	-94.616177
Nearman Water Treatment Plant	4301 Brenner Road	Kansas City	Wyandotte	KS	66104	39.162611	-94.706056
The Hillshire Brands Company, Kansas City, KS	4612 Speaker Road	Kansas City	Wyandotte	KS	66106	39.094722	-94.686666
Kirksville Water Treatment Plant	1900 W Potter Avenue	Kirksville	Adair	MO	63501	40.214444	-92.606667
Kraft Heinz Company Kirksville	2504 North Industrial Road	Kirksville	Adair	MO	63501	40.219515	-92.590939
Prairieland Fs Inc- Kirksville	26970 Glenview Trail	Kirksville	Adair	MO	63501	40.095873	-92.532084
Savannah Drinking WTP	9331 State Route T	Amazonia	Andrew	MO	64421	39.914444	-94.879440



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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
H2Ag Supply - Bolckow	2516 County Road 17	Bolckow	Andrew	MO	64427	40.092694	-94.955722
Helena, MO	14616 Holt Street	Helena	Andrew	MO	64459	39.913772	-94.646740
MFA Agri Service Savannah Anhydrous Plant	10497 HWY 71	Savannah	Andrew	MO	64485	39.973650	-94.873040
Atchison County AGChoice Fairfax	26245 N. Hwy. 59	Fairfax	Atchison	MO	64446	40.347414	-95.398433
Fertilizer Service Company	601 US Hwy 59 North	Fairfax	Atchison	MO	64446	40.345185	-95.396596
Atchison County AGChoice Rock Port	17287 West Hwy. 136	Rock Port	Atchison	MO	64482	40.421320	-95.533829
MO. Valley Agri-Service of Atchison County, Inc.	17800 Hwy 136 W	Rock Port	Atchison	MO	64482	40.420083	-95.522389
Tarkio Cooperative, Inc.	04 Main	Tarkio	Atchison	MO	64491	40.440830	-95.374910
Mo Valley - Watson	13013 State Hwy A	Watson	Atchison	MO	64496	40.477280	-95.614522
Westboro, MO 448	501 South Adams	Westboro	Atchison	MO	64498	40.534039	-95.318648
MFA Anhydrous Ammonia Plant Laddonia	Audrain Road 530	Laddonia	Audrain	MO	63352	39.245150	-91.637825
MFA Agri Service Martinsburg	15778 Audrain Road 741	Martinsburg	Audrain	MO	65264	39.107605	-91.669213
Dawn Food Products, Inc.	1400 Vance Road	Mexico	Audrain	MO	65265	39.116611	-91.903503
Mexico, MO 1042	11773 Highway 54	Mexico	Audrain	MO	65265	39.165183	-91.776750
Mexico, MO 1458 Satellite	17498 Highway M	Mexico	Audrain	MO	65265	39.085592	-92.031656
MFA Agri Service Mexico	2816 East Liberty St	Mexico	Audrain	MO	65265	39.159360	-91.843457
MFA Bulk Plant - Vandalia	800 W. Washington	Vandalia	Audrain	MO	63382	39.306918	-91.494314
Service And Supply Cooperative	2727 Audrain Road 557	Vandalia	Audrain	MO	63382	39.296287	-91.517620
Vandalia, MO 2169 Satellite	8748 Highway W	Vandalia	Audrain	MO	63382	39.207716	-91.481467
George's, Inc. Processing Plant	Highway 37 & Highway "W"	Cassville	Barry	MO	65625	36.745830	-93.919777
SFI - Monett Plant	10 Dairy Street	Monett	Barry	MO	65708	36.916614	-93.926307
Tyson Poultry	800 County Rd.	Monett	Barry	MO	65708	36.918611	-93.913611
Bunton Farms Inc.	62 E Hwy C	Lamar	Barton	MO	64759	37.589153	-94.282171
Water Treatment Plant, City of Lamar	2003 S. Hagny	Lamar	Barton	MO	64759	37.482717	-94.262761
Liberal, MO	1246 West Highway K	Liberal	Barton	MO	64762	37.565854	-94.524028
West Central AGRIServices Adrian	438 NW Cty Road 11002	Adrian	Bates	MO	64720	38.381859	-94.352604
Heiman Agri Services, Inc.	Sale Barn Road	Butler	Bates	MO	64730	38.2652404	-94.345283
West Central Agriservices - Rich Hill	700 East Walnut Street	Rich Hill	Bates	MO	64779	38.098826	-94.361017
Heiman Inc	Third & Vernon	Rockville	Bates	MO	64780	38.071806	-94.079278
Jefferson & Vernon	Jefferson & Vernon	Rockville	Bates	MO	64780	38.07135	-94.07569

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Producers Exchange Number 84	102 North Main Street	Ionia	Benton	MO	65335	38.500985	-93.322862
MFA Agri Service Centralia West Liquid Plant	22501 North March Road	Centralia	Boone	MO	65240	39.217982	-92.162944
Aurora Organic Dairy Corp	4525 Waco Rd.	Columbia	Boone	MO	65202	39.013372	-92.267668
City of Columbia Water Treatment Plant	6851 West State Hwy K	Columbia	Boone	MO	65203	38.886500	-92.442700
HWTG - Columbia	1400 East Boone Industrial Drive	Columbia	Boone	MO	65202	38.997698	-92.319335
Kraft Heinz Columbia	4600 Waco Road	Columbia	Boone	MO	65202	39.010563	-92.267198
Swift Prepared Foods - Columbia	5008 Paris Road	Columbia	Boone	MO	65202	39.0028493	-92.2754126
Rushville Fertilizer Plant	Lost Creek Rd and US Highway 59	Rushville	Buchanan	MO	64484	39.588056	-95.029167
Nor-Am Ice & Cold Plant C	3401 Stockyard Expressway	Saint Joseph	Buchanan	MO	64504	39.735273	-94.858373
Omnium St. Joseph	1417 Lower Lake Road	Saint Joseph	Buchanan	MO	64504	39.720833	-94.882500
Triumph Foods LLC	5302 Stockyards Expressway	Saint Joseph	Buchanan	MO	64504	39.720000	-94.875278
BHJ USA, LLC	5307 Stockyards Expressway	St Joseph	Buchanan	MO	64504	39.718801	-94.873443
Albaugh, LLC.	4900 Stockyard Expressway	St. Joseph	Buchanan	MO	64504	39.722600	-94.870100
Daily's Premium Meats, LLC	5501 Stockyards Expressway	St. Joseph	Buchanan	MO	64504	39.716542	-94.872745
Hillshire Brands- St. Joseph, Missouri	5807 Mitchell Avenue	St. Joseph	Buchanan	MO	64507	39.756010	-94.759900
ICM Biofuels, LLC	2811 South 11th Street	St. Joseph	Buchanan	MO	64503	39.7392	-94.846400
MFA Agri Service St. Joseph	2715 South 6th Street	St. Joseph	Buchanan	MO	64501	39.738295	-94.852203
Missouri American Water Co. St. Joseph Plant	800 NE County Line Road	St. Joseph	Buchanan	MO	64505	39.820833	-94.855000
Consumers Oil and Supply Company	100 Railroad Street	Braymer	Caldwell	MO	64624	39.587341	-93.790892
MFA Agri Service Hamilton	203 N. Ardinger Street	Hamilton	Caldwell	MO	64644	39.743539	-94.000386
Sinclair Research Center, LLC	562 State Road DD	Auxvasse	Callaway	MO	65231	39.043295	-92.089653
MFA Agri Service Cedar Creek	2887 County Road 269	Columbia	Callaway	MO	65202	38.959021	-92.130763
MFA Agri Service Jefferson City	1009 4th Street	Jefferson City	Callaway	MO	65101	38.595493	-92.174883
Atkinson Farm Service	5235 Old Highway 40	Kingdom City	Callaway	MO	65262	38.953889	-91.955000
Coop Service Center	506 East Washington Street	Jackson	Cape Girardeau	MO	63755	37.381417	-89.662430
MFA Agri Service Jackson	1770 Lee Avenue	Jackson	Cape Girardeau	MO	63755	37.366808	-89.675079
Midwest Sterilization Corporation - Jackson	1204 Lenco Avenue	Jackson	Cape Girardeau	MO	63755	37.371000	-89.687000
Southern FS Inc. - Whitewater	8759 Route A	Whitewater	Cape Girardeau	MO	63785	37.235611	-89.796332



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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Biokyowa, Inc.	5469 Nash Road	Cape Girardeau	Cape Girardeau	MO	63702	37.239722	-89.600278
Cape Rock Treatment Plant #1	20 E. Cape Rock Dr.	Cape Girardeau	Cape Girardeau	MO	63701	37.327500	-89.500028
CHS Propane Terminal - Carrollton	25131 CR 200	Bogard	Carroll	MO	64622	39.469850	-93.475150
MFA Bulk Plant Bosworth	200 S. Kansas Avenue	Bosworth	Carroll	MO	64623	39.468935	-93.333035
Ray-Carroll County Grain Growers, Inc.-Carrollton	26274 Hwy 24	Carrollton	Carroll	MO	64633	39.220043	-93.270843
Show Me Ethanol, LLC	26530 Highway 24 East	Carrollton	Carroll	MO	64633	39.365233	-93.448935
MFA Bulk Plant Hale	30749 J Hwy.	Hale	Carroll	MO	64643	39.599986	-93.373420
MFA Agri Service - Norborne	11791 Hwy. 10	Norborne	Carroll	MO	64668	39.263378	-93.726278
Ray-Carroll County Grain Growers, Inc., Norborne	Sante Fe	Norborne	Carroll	MO	64668	39.305191	-93.672900
Mid-West Fertilizer, Inc. - Drexel	133 E Industrial Drive	Drexel	Cass	MO	64742	38.492254	-94.608183
Church & Dwight Co., Inc.	1607 Anaconda Road	Harrisonville	Cass	MO	64701	38.637639	-94.364139
MoKan Seed & Chemical LLC	29619 S State Rt DD Hwy	Harrisonville	Cass	MO	64701	38.578091	-94.403893
Wal-Mart Distribution Center #6065	5100 Brookhart Drive	Harrisonville	Cass	MO	64701	38.614167	-94.355000
West Central AGRIServices Harrisonville	28101 S. State Rt. TT	Harrisonville	Cass	MO	64701	38.606769	-94.301234
Dogwood Energy Facility	25111 E. 175th Street	Pleasant Hill	Cass	MO	64080	38.793438	-94.300295
AGRIServices of Brunswick, LLC.	1010 E Broadway	Brunswick	Chariton	MO	65236	39.421176	-93.116501
Ray-Carroll County Grain Growers, Inc.,	17149 Hwy 24	Brunswick	Chariton	MO	65236	39.431600	-93.150021
Keytesville, MO 2654	29260 Highway K	Keytesville	Chariton	MO	65261	39.415374	-92.929308
AGRIServices of Brunswick, LLC. - Mendon	1 Brunswick Street	Mendon	Chariton	MO	64660	39.591537	-93.138084
Mendon, MO 2609 Satellite	15448 Highway CC	Mendon	Chariton	MO	64660	39.624162	-93.131323
MFA Agri Service - Salisbury	204 West Front St.	Salisbury	Chariton	MO	65281	39.424356	-92.803620
Ricketts Farm Service, Inc.	29453 Jackson Ave	Salisbury	Chariton	MO	65281	39.411832	-92.864535
Salisbury Ag Center, Inc.	303 N. Weber	Salisbury	Chariton	MO	65281	39.425944	-92.798444
Ray-Carroll County Grain Growers, Inc., Sumner	314 West Centre Street	Sumner	Chariton	MO	64681	39.655870	-93.245922
Chem Gro of Houghton - Alexandria Facility	34999 Highway 136	Alexandria	Clark	MO	63430	40.370221	-91.474882
MFA Agri Service Kahoka	22967 E Main Street	Kahoka	Clark	MO	63445	40.420889	-91.704443
Prairieland FS, Inc - Kahoka.	Jct Hwy. 136 & 81	Kahoka	Clark	MO	63445	40.413906	-91.721186
Helena Agri-Enterprises, LLC -	11848 County Road 127	Wyaconda	Clark	MO	63474	40.401804	-91.916269
Kansas City, Missouri Water Treatment Plant	1 NW Briarcliff Road	Kansas City	Clay	MO	64116	39.155972	-94.583889

**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Enterprise Kearney Terminal & Storage	1015 North Jefferson	Kearney	Clay	MO	64060	39.388028	-94.368938
Ingredion Incorporated North Kansas City Plant	1001 Bedford Ave.	North Kansas City	Clay	MO	64116	39.124617	-94.572533
Osborn NH3	690 Clinton Ave	Osborn	Clinton	MO	64474	39.746808	-94.358224
Plattsburg NH3	4514 W. Hwy 116	Plattsburg	Clinton	MO	64477	39.558973	-94.505511
Plattsburg Terminal	2985 Highway 33 North	Plattsburg	Clinton	MO	64477	39.600137	-94.410199
Professional Ag Services, Inc.	99 NE 280th St	Plattsburg	Clinton	MO	64477	39.600616	-94.412397
Ag Coop Services, Inc	18860 Highway 87 East	Boonville	Cooper	MO	65233	38.9555	-92.717150
MFA Agri Service Lone Elm	10674 B Hwy	Bunceton	Cooper	MO	65237	38.843108	-92.737314
Pilot Grove Cooperative, Inc.	12302 Hwy 135	Pilot Grove	Cooper	MO	65276	38.863300	-92.916860
Prairie Home Cooperative	9238 Highway 87	Prairie Home	Cooper	MO	65068	38.808278	-92.585000
MFA Agri Service - Gallatin	24395 State Hwy 6	Gallatin	Daviess	MO	64640	39.931100	-93.941448
MFA Agri Service Pattonsburg South	18563 US Hwy 69	Pattonsburg	Daviess	MO	64670	40.010875	-94.120324
Stagner Fertilizer, LLC	9136 W Hwy 6	Amity	Dekalb	MO	64422	39.892707	-94.532858
Cameron Municipal Water Treatment Plant	1100 West Eighth Street	Cameron	Dekalb	MO	64429	39.746583	-94.251722
MFA Agri Service Maysville	1302 S. Water St.	Maysville	Dekalb	MO	64469	39.878898	-94.363735
Straatmann Feed & Transfer, Inc.	3601 Old Hwy. 100	Labadie	Franklin	MO	63055	38.519333	-90.891660
Backes & Toelke Agri Products, Inc.	9948 Hwy 100	New Haven	Franklin	MO	63068	38.598995	-91.256115
DAP Products, Inc. - Pacific Facility	307 Integram Drive	Pacific	Franklin	MO	63069	38.484711	-90.78529
Plaze, Incorporated	1000 Integram Drive	Pacific	Franklin	MO	63069	38.479818	-90.786169
Plaze, Incorporated	105 Bolte Lane	St. Clair	Franklin	MO	63077	38.360124	-90.990972
Aerofil Technology, Inc.	225 Industrial Park Drive	Sullivan	Franklin	MO	63080	38.227031	-91.171517
Cloud MFG.	#10 Williams Drive	Union	Franklin	MO	63084	38.465070	-91.026480
Coop Association #2 Bulk Plant	110 West Link Drive	Washington	Franklin	MO	63090	38.568250	-91.052951
Frick's Quality Meats, Inc.	360 M.E. Frick Dr.	Washington	Franklin	MO	63090	38.570483	-91.055103
MFA Agri Service Owensville	1312 W Hwy 28	Owensville	Gasconade	MO	65066	38.332498	-91.523991
Agriland FS Inc. - Albany	5275 US Hwy 136	Albany	Gentry	MO	64402	40.241698	-94.390861
Albany, MO 1031	805 West Mill Street	Albany	Gentry	MO	64402	40.244017	-94.340322
MFA Agri Service Albany	711 S Birch St	Albany	Gentry	MO	64402	40.243813	-94.341957
H2Ag Supply - King City	4227 US Hwy 169	King City	Gentry	MO	64463	40.105254	-94.521936

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
MFA Agri Service King City	4698 US Highway 169	King City	Gentry	MO	64463	40.039654	-94.527106
Stanberry, MO 1046	105 East Railroad Street	Stanberry	Gentry	MO	64489	40.211829	-94.543548
Associated Wholesale Grocers, Inc.	3201 E. Division St	Springfield	Greene	MO	65802	37.225998	-93.229629
Brenntag Mid-South, Inc.	2235 W. Battlefield Road	Springfield	Greene	MO	65807	37.160444	-93.323944
Dairy Farmers of America - Springfield	800 West Tampa	Springfield	Greene	MO	65802	37.212742	-93.301392
Hiland Dairy - Springfield, MO	1133 E. Kearney	Springfield	Greene	MO	65803	37.241639	-93.275888
KraftHeinz Company	2035 E. Bennett Street	Springfield	Greene	MO	65804	37.188889	-93.256667
Springfield - 3M Company	3211 East Chestnut Expressway	Springfield	Greene	MO	65802	37.213097	-93.227415
MFA Agri Service Laredo	410 East 2nd Street	Laredo	Grundy	MO	64652	40.027482	-93.443010
MFA Bulk Plant Tindall	700 Metcalf	Tindall	Grundy	MO	64683	40.159178	-93.610971
Nestle Professional - Trenton, MO	1401 Harris Avenue	Trenton	Grundy	MO	64683	40.079999	-93.609794
Trenton, MO 1047	915 Shanklin Avenue	Trenton	Grundy	MO	64683	40.077517	-93.612182
AGRILAND FS, Inc. - Bethany	35554 E State Hwy 146	Bethany	Harrison	MO	64424	40.1996221	-93.9339014
Bethany, MO 1032	31019 East 260th Avenue	Bethany	Harrison	MO	64424	40.263148	-93.930621
UFC - Cainsville	130 Main Street	Cainsville	Harrison	MO	64632	40.439593	-93.766806
SFI - Clinton Plant	935 Nusbaum Street	Clinton	Henry	MO	64735	38.387222	-93.760556
CRAIG SUPPLY CO	14814 HIGHWAY 59	Craig	Holt	MO	64437	40.192910	-95.365710
Golden Triangle Energy	15053 Highway 111	Craig	Holt	MO	64437	40.189642	-95.368350
MO. Valley Agri-Service of Atchison County, Inc.	28969 Hwy 159	Forest City	Holt	MO	64451	40.080500	-95.173000
Sur-Gro Plant Food Co. Inc.- Forest City	226 S. Walnut	Forest City	Holt	MO	64451	39.979722	-95.191944
Sur-Gro Plant Food Co. Inc.-Forest City	245 S. Walnut	Forest City	Holt	MO	64451	39.979167	-95.191111
Maitland, MO 1041	33750 State Highway A	Maitland	Holt	MO	64466	40.200940	-95.070909
Maitland, MO Satellite	Highway C	Maitland	Holt	MO	64466	40.219658	-95.171024
Sur-Gro Plant Food Co. Inc-Maitland	31624 Holt 170	Maitland	Holt	MO	64466	40.159013	-95.114295
Yocum Service Inc.	203 East 2nd Street	Mound City	Holt	MO	64470	40.128581	-95.228588
Sur-Gro Plant Food Co. Inc-Forbes	34497 Trinity Rd	Oregon	Holt	MO	64473	39.902845	-95.082569
MFA Agri Service - Glasgow	402 10th Street	Glasgow	Howard	MO	65254	39.225015	-92.827790
MFA Agri Service New Franklin NH3 Plant	7750 Hwy 87	New Franklin	Howard	MO	65274	38.987080	-92.759950
Coastal Energy Corporation	234 Burnham Road	Willow Springs	Howell	MO	65793	36.9752777	-91.9519444
Buick Facility	270 Forest Road 2231, Hwy KK	Boss	Iron	MO	65440	37.605556	-91.125000

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Smart Warehousing, LLC	16500 East Truman Road	Independence	Jackson	MO	64050	39.095575	-94.379758
Arctic Glacier KC MO	9701 NE Parvin Rd	Kansas City	Jackson	MO	64161	39.172008	-94.461323
Bayer CropScience	8400 Hawthorn Road	Kansas City	Jackson	MO	64120	39.121667	-94.475833
Brenntag Mid-South, Inc.	5200 Stillwell Rd.	Kansas City	Jackson	MO	64120	39.142500	-94.520000
Faultless Starch/Bon Ami Company	1025 W. 8th Street	Kansas City	Jackson	MO	64101	39.105459	-94.595847
General Mills, Inc. - Kansas City	2917 Guinotte Avenue	Kansas City	Jackson	MO	64120	39.119167	-94.545556
Hawthorn Generating Facility	8700 East Front Street	Kansas City	Jackson	MO	64120	39.130833	-94.477778
Smithfield Packaged Meats Corp.	13825 Wyandotte Street	Kansas City	Jackson	MO	64145	38.876937	-94.596662
MFA Bulk Plant - Levasy	36906 E. 24 Hwy.	Levasy	Jackson	MO	64066	39.136112	-94.146094
Courtney Bend Water Treatment Plant	Courtney Bend Water Treatment Plant	Sugar Creek	Jackson	MO	64058	39.159046	-94.402202
ADM Milling Co.	323 Meridian	Carthage	Jasper	MO	64839	37.182110	-94.309280
Ajinomoto Foods	5691 S. Davinci Lane	Carthage	Jasper	MO	64836	37.101389	-94.313889
Americold, Carthage Plant # 81302	1331 Civil War Rd.	Carthage	Jasper	MO	64836	37.200713	-94.326388
Butterball, LLC	411 North Main Street	Carthage	Jasper	MO	64836	37.183073	-94.311455
Dyno Nobel Carthage Plant	17562 Gum Road	Carthage	Jasper	MO	64836	37.153056	-94.374444
Schreiber Foods - Fairview Facility	1112 West Fairview Avenue	Carthage	Jasper	MO	64836	37.152911	-94.326686
SFI - Carthage Plant	127 Claxton Street	Carthage	Jasper	MO	64836	37.184056	-94.311611
Carthage Terminal	18195 County Rd 138	Jasper	Jasper	MO	64755	37.3134	-94.305300
Ajinomoto Foods North America	3131 S. Quail Avenue	Joplin	Jasper	MO	64804	37.055076	-94.394033
General Mills - Joplin	3007 Stephens Blvd	Joplin	Jasper	MO	64804	37.056642	-94.464935
Jasper Products LLC	3877 East 27th	Joplin	Jasper	MO	64804	37.061872	-94.463918
Don's Cold Storage	2320 South Hall St.	Webb City	Jasper	MO	64870	37.116553	-94.459956
DPC Enterprises, L.P.	1785 Highway 61 South	Festus	Jefferson	MO	63028	38.180556	-90.391667
Behr St. Louis	3135 Old Hwy M	Imperial	Jefferson	MO	63052	38.36592	-90.45264
DDP Specialty Electronic Materials US, LLC	500 Dow Industrial Drive	Pevely	Jefferson	MO	63070	38.28362	-90.39053
West Central AGRIServices - Centerview	103 S. Main	Centerview	Johnson	MO	64019	38.743460	-93.847326
West Central AGRIServices - Chilhowee	209 East Barnum	Chilhowee	Johnson	MO	64733	38.582648	-93.851287
Northeast Missouri Co-op Service	Santa Fe Railroad East	Baring	Knox	MO	63531	40.244169	-92.201101
Northeast Missouri Co-op Service	West Reid Street	Edina	Knox	MO	63537	40.163324	-92.179928
Northeast Missouri Co-op Service	Hwy 15 East	Novelty	Knox	MO	63460	40.011887	-92.165526

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
MFA Agri Service Alma	106 E. Collins Street	Alma	Lafayette	MO	64001	39.095716	-93.542864
Tyson Deli, Inc. Concordia MO	1901 South Saint Louis St.	Concordia	Lafayette	MO	64020	38.968056	-93.566111
Heimsoth Agri. Service, Inc.	305 Coal Street	Corder	Lafayette	MO	64021	38.908722	-94.11427
Ray-Carroll County Grain Growers, Inc., Corder	26194 HWY 20	Corder	Lafayette	MO	64021	39.292700	-93.480000
Mid-Missouri Agri Service Emma (Enviro)	32376 Emma Road	Emma	Lafayette	MO	65327	38.972114	-93.504514
MFA Bulk Plant Higginsville	1305 W. 24th Terrace	Higginsville	Lafayette	MO	64037	39.070608	-93.743405
MFA Anhydrous Ammonia Plant Lexington	10601 Highway 224	Lexington	Lafayette	MO	64067	39.174265	-93.906418
Ray-Carroll County Grain Growers, Inc., Mayview	110 North Railroad	Mayview	Lafayette	MO	64071	39.053785	-93.835060
Central Missouri AGRIService, LLC.-Waverly	215 Thomas Drive	Waverly	Lafayette	MO	64096	39.213371	-93.513184
City of Monett Water Treatment Plant	1140 N. Eisenhower	Monett	Lawrence	MO	65708	36.931846	-93.938685
SFI - Mt. Vernon Plant	108 West North Street	Mount Vernon	Lawrence	MO	65712	37.105194	-93.821444
Mount Vernon Products Terminal	15138 Highway 96	Mt. Vernon	Lawrence	MO	65712	37.188707	-93.782183
BCP Ingredients Incorporated	299 Extension Street	Verona	Lawrence	MO	65769	36.962822	-93.798237
Prairieland FS, Inc. Canton	13734 US HWY 61	Canton	Lewis	MO	63435	40.198652	-91.523216
Farmers Cooperative Services, Inc Ewing	Highway 6 South	Ewing	Lewis	MO	63440	40.022	-91.952722
MFA Bulk Plant Heetco	12461 Hwy 6 East	Labelle	Lewis	MO	63447	40.113144	-91.904004
Prairieland FS, Inc. LaBelle	20450 State Highway DD	Labelle	Lewis	MO	63447	40.100629	-91.866273
Humphrey Feed and Seed	22593 State Hwy 16	Monticello	Lewis	MO	63457	40.111111	-91.712500
MFA Agri Service Elsberry	402 N. Main St.	Elsberry	Lincoln	MO	63343	39.169533	-90.781917
Eolia, MO 2868 Satellite	175 Adams Road	Eolia	Lincoln	MO	63344	39.208605	-91.011925
Service & Supply Coop	461 Hwy J	Troy	Lincoln	MO	63379	38.959444	-90.996667
AGRIServices of Brunswick, LLC. - AgLand	118 E. Helm St.	Brookfield	Linn	MO	64628	39.785050	-93.070532
MFA Bulk Fertilizer Plant - Brookfield	27635 Hwy. FF	Brookfield	Linn	MO	64628	39.785471	-93.129960
Meadville, MO	101 East John Street	Meadville	Linn	MO	64659	39.784753	-93.303711
Americold - CHILLICOTHE	500 Corporate Drive	Chillicothe	Livingston	MO	64601	39.777778	-93.537500
Chillicothe Municipal Utilities	1425 Waterworks Road	Chillicothe	Livingston	MO	64601	39.783889	-93.561111
Chula Farmers Coop	215 Manning Ave	Chula	Livingston	MO	64635	39.9228	-93.474800
MFA Agri Service B/P	29098 July Road	Laplata	Macon	MO	63549	40.012161	-92.492015
ConAgra Brands - Macon, MO	204 Vine Street	Macon	Macon	MO	63552	39.737092	-92.469945
MFA Anhydrous Ammonia Plant New Cambria	29400 Colony Ave.	New Cambria	Macon	MO	63558	39.766099	-92.761916

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
MFA Agri Service Marion County	6040 Hwy. 24	Hannibal	Marion	MO	63401	39.728035	-91.508898
Air Products, Hannibal	C/O BASF	Palmyra	Marion	MO	63461	39.834167	-91.429722
AMVAC Chemical Corp. Hannibal Plant	3150 Highway JJ	Palmyra	Marion	MO	63461	39.83192	-91.432436
BASF - Hannibal Plant	3150 Highway JJ	Palmyra	Marion	MO	63461	39.833319	-91.437035
Bleigh Farms, Inc.	9037 Hwy 168	Palmyra	Marion	MO	63461	39.776309	-91.423089
CF Industries Dist. Facilities, LLC - Palmyra	2838 County Road #359	Palmyra	Marion	MO	63461	39.845833	-91.443888
Farmers Cooperative Services, Inc	7180 Hwy 168	Palmyra	Marion	MO	63461	39.80975	-91.509528
Palmyra, MO 3512	6825 County Road 338	Palmyra	Marion	MO	63461	39.879908	-91.523557
Prairieland FS, Inc. - Taylor	614 Birch Lane	Taylor	Marion	MO	63471	39.925	-91.525556
Tyson Chicken Inc Noel, Mo.	One Tyson Ave.	Noel	Mcdonald	MO	64854	36.553611	-94.490556
Simmons Foods, SWCP	10700 South State Hwy 43 N	South West City	Mcdonald	MO	64863	36.543611	-94.598889
Burgers Ozark Country Cured Hams, Inc.	32819 Highway 87	California	Moniteau	MO	65018	38.595811	-92.573504
Cargill Meat Solutions, Inc., California, MO	1001 E Smith	California	Moniteau	MO	65018	38.628889	-92.551389
Monroe County Service Company	25139 Business Hwy 24	Paris	Monroe	MO	65275	39.467724	-92.016582
Paris, MO 429	26411 Monroe Road 720	Paris	Monroe	MO	65275	39.368469	-91.996975
Service And Supply Cooperative	1196 Hwy E	Bellflower	Montgomery	MO	63333	39.018583	-91.352972
MFA Bulk Plant Montgomery City	335 Short Street	Montgomery City	Montgomery	MO	63361	38.963757	-91.495245
Service And Supply Cooperative	22 Coop Avenue	New Florence	Montgomery	MO	63363	38.900767	-91.449159
Cooperative Association #130	206 Bluff Street	Rhineland	Montgomery	MO	65069	38.718500	-91.517747
Wellsville, MO 1042 Satellite	Highway AA 3/4 Mile N of Polar S	Wellsville	Montgomery	MO	63348	39.087180	-91.566386
Wellsville, MO 1042 Satellite (Whse)	#4 Highway AA	Wellsville	Montgomery	MO	63384	39.082187	-91.565621
Loganbill Ag Services	600 Hwy 5	Syracuse	Morgan	MO	65354	38.674954	-92.861416
MFA Bulk Plant Tipton	74986 Hwy. 50	Tipton	Morgan	MO	65081	38.668248	-92.840369
New Madrid Power Plant	41 St. Jude Industrial Park Road	Marston	New Madrid	MO	63866	36.515833	-89.564722
Protein Solutions, LLC	3800 E. 32nd St.	Joplin	Newton	MO	64804	37.054404	-94.465279
Crowder Wastewater Plant	675 Radio Rd.	Neosho	Newton	MO	64850	36.816165	-94.381238
Tanner Industries, Inc.	Howard Bush Drive & Ross Avenue	Neosho	Newton	MO	64850	36.803056	-94.387222
Water Filtration Plant	15318 Kentucky Rd.	Neosho	Newton	MO	64850	36.884434	-94.367044
MFA Anhydrous Plant	29317 State Hwy M	Barnard	Nodaway	MO	64423	40.172561	-94.834110



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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Farmers Supply	17502 U.S. Highway 136 East	Burlington Junction	Nodaway	MO	64428	40.441000	-95.053806
MFA Agri Service - Burlington Junction	1101 W. Main St.	Burlington Junction	Nodaway	MO	64428	40.445613	-95.077312
MFA Agri Service - Conception Junction	616 S. Main St.	Conception Junction	Nodaway	MO	64434	40.270101	-94.692529
County Line Ag Service LLC	40455 State Route Y	Graham	Nodaway	MO	64455	40.138611	-95.020278
MFA Agri Service - Guilford	101 State Hwy M	Guilford	Nodaway	MO	64457	40.168470	-94.738510
River Valley Ag Services, LLC	401 East Warren Street	Hopkins	Nodaway	MO	64461	40.551933	-94.817818
Consumers Oil -- Nurse Tank Storage	203 South Depot St.	Maryville	Nodaway	MO	64468	40.3437	-94.8553
Consumers Oil Company	431 North Depot	Maryville	Nodaway	MO	64468	40.349556	-94.855170
MFA Agri Service Maryville	221 N. Depot St.	Maryville	Nodaway	MO	64468	40.348133	-94.855195
River Valley Ag Services, LLC	31972 State Highway H	Maryville	Nodaway	MO	64468	40.260278	-94.932778
Gateway FS, Inc. - McBride	166 Main Street	McBride	Perry	MO	63776	37.831059	-89.840573
MFA Anhydrous Plant Perryville	3501 South Hwy. 61	Perryville	Perry	MO	63775	37.695668	-89.818395
Guier Chemical & Fertilizer, Inc.	13992 Hwy K	Houstonia	Pettis	MO	65333	38.879517	-93.364131
Hughesville, MO 1332	25204 Highway D	Hughesville	Pettis	MO	65334	38.856856	-93.218719
La Monte, MO	511 West Front Street	La Monte	Pettis	MO	65337	38.765278	-93.431547
Ag Coop Services, Inc.	199 N. Walnut	Lamonte	Pettis	MO	65337	38.7758	-93.430200
Ag Coop Services, Inc	2420 Clinton Rd	Sedalia	Pettis	MO	65301	38.69114	-93.243440
MFA Ammonia Plant Sedalia	23819 Oak Grove Ln.	Sedalia	Pettis	MO	65301	38.730457	-93.288975
Tyson Poultry, Inc. Sedalia, Mo, Processing Plant	19571 Whitfield RD.	Sedalia	Pettis	MO	65301	38.748889	-93.321389
Catalytic Innovations, LLC	11601 Twitty Drive	Rolla	Phelps	MO	65401	37.973968	-91.752872
Bowling Green, MO 713	16083 Business Highway 61 North	Bowling Green	Pike	MO	63334	39.357371	-91.211212
Service And Supply Cooperative	17107 Pike Road 488	Bowling Green	Pike	MO	63334	39.342487	-91.235974
Dyno Nobel, Inc. - Louisiana, Missouri Plant	11025 Highway D	Louisiana	Pike	MO	63353	39.428333	-91.032500
Sur-Gro Plant Food Company, Inc-Dearborn	512 Maple Leaf Street	Dearborn	Platte	MO	64439	39.522901	-94.775432
Smithfield Packaged Meats Corp.	8001 NW 106th Street	Kansas City	Platte	MO	64153	39.284622	-94.672525
Kansas City Foam	555 NW Platte Valley Dr	Riverside	Platte	MO	64150	39.170791	-94.631290
Iatan Generating Station	20250 Highway 45 North	Weston	Platte	MO	64098	39.448000	-94.980800
Missouri Prime Beef Packers	5305 Hwy H	Pleasant Hope	Polk	MO	65725	37.477578	-93.269206

**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Service And Supply Cooperative	505 West Highway 19	Center	Ralls	MO	63436	39.507076	-91.533440
Continental Cement Company, LLC	10107 Highway 79	Hannibal	Ralls	MO	63401	39.679722	-91.311389
Farmers Elevator & Exchange Company	11523 Highway J	Monroe City	Ralls	MO	63456	39.659134	-91.661028
Perry, MO 3514	28262 Mexico Road	Perry	Ralls	MO	63462	39.421768	-91.658982
Enterprise Moberly Terminal & Storage	1342 Cairo Outer Road	Cairo	Randolph	MO	65239	39.522167	-92.440944
Ricketts Farm Service of Cairo, Inc.	5202 North Hwy 63	Cairo	Randolph	MO	65239	39.48994	-92.43289
MFA Ammonia Plant Clark	1020 County Road 2665	Clark	Randolph	MO	65243	39.315034	-92.386049
Thomas Hill Energy Center	5693 Hwy F	Clifton Hill	Randolph	MO	65244	39.554722	-92.636667
Swift Prepared Foods - Moberly	100 McKeown Parkway	Moberly	Randolph	MO	65270	39.450156	-92.436992
Walmart Distribution Center #6077	1309 Hwy. 24 East	Moberly	Randolph	MO	65270	39.447639	-92.420446
Ray-Carroll County Grain Growers, Inc. Hardin	700 East Main Street	Hardin	Ray	MO	64035	39.271312	-93.824560
C.P.W.S.D. # 2 of Ray County	7906 Highway O	Orrick	Ray	MO	64077	39.234722	-94.137500
MFA Agri Service Orrick NH3 Plant	35196 W. 56th St.	Orrick	Ray	MO	64077	39.192610	-94.107790
Arnette Polymers, LLC	8905 S. Wollard Blvd	Richmond	Ray	MO	64085	39.249507	-93.946103
Brushy Creek Facility	10827 Highway KK	Boss	Reynolds	MO	65440	37.538656	-91.129719
Fletcher Facility	230 County Road 849	Centerville	Reynolds	MO	63633	37.466736	-91.109164
Sweetwater Mine and Mill	Route 1	Reynolds	Reynolds	MO	63666	37.360	-91.148
Central Missouri AGRIService LLC. - Blackburn	215 West Park St.	Blackburn	Saline	MO	65321	39.104786	-93.485374
Acme Supply Company	1 East Pacific Street	Malta Bend	Saline	MO	65339	39.197222	-93.359722
Acme Supply Company, LLC - Blosser	27755 Golden Avenue	Malta Bend	Saline	MO	65339	39.193143	-93.287500
Mid-Missouri Energy	15311 North Saline 65 Highway	Malta Bend	Saline	MO	65339	39.197222	-93.386389
Acme Supply Company, LLC	19342 South Saline 65 Hwy	Marshall	Saline	MO	65340	39.069360	-93.194577
Americold, Marshall #5114	3465 West Arrow	Marshall	Saline	MO	65340	39.118553	-93.243255
Cargill Meat Solutions Corporation	3555 W. Arrow St.	Marshall	Saline	MO	65340	39.118300	-93.247500
Central Missouri AGRIService, LLC. - Marshall	211 N. Lyon St	Marshall	Saline	MO	65340	39.123104	-93.202408
ConAgra Brands - Marshall, MO	200 Banquet Drive	Marshall	Saline	MO	65340	39.121974	-93.199087
Central Missouri AGRIService, LLC. - Slater	305 Industrial Blvd	Slater	Saline	MO	65349	39.216877	-93.061829
Ray-Carroll County Grain Growers, Inc., Slater	29261 N. Highway 240	Slater	Saline	MO	65349	39.211160	-93.076408
Greentop, MO 1336 Satellite	24701 Highway 63 North	Greentop	Schuyler	MO	63546	40.378680	-92.559827
Helena Agri-Enterprises, LLC - Memphis, MO Fac	19696 County Road 564	Memphis	Scotland	MO	63555	40.499694	-92.161738



**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Memphis, MO 1350	14431 State Highway 15	Memphis	Scotland	MO	63555	40.530065	-92.160792
MFA Agri Service Memphis	300 South Ridge Street	Memphis	Scotland	MO	63555	40.455225	-92.161701
Prairieland FS, Inc. Memphis East	Junction US HWY 136 County U	Memphis	Scotland	MO	63555	40.451944	-92.092778
MFA Agri Service - Chaffee	1980 Cummins Dr.	Chaffee	Scott	MO	63740	37.190028	-89.674819
Kelso Milling Co.	1205 Main St.	Scott City	Scott	MO	63780	37.217574	-89.520932
Americold - Sikeston	2500 Rose Parkway	Sikeston	Scott	MO	63801	36.926989	-89.620878
Unilever-Sikeston One Plant	2400 Rose Parkway	Sikeston	Scott	MO	63801	36.935048	-89.619974
Mesmer Fertilizer, Inc.	168 West 1st Street	Bethel	Shelby	MO	63434	39.876389	-92.024500
Clarence, MO 3552 Satellite	5933 Shelby County Road 309	Clarence	Shelby	MO	63437	39.740817	-92.236042
MFA Bulk Plant Shelbyna	4787 State Highway 36	Shelbina	Shelby	MO	63468	39.701035	-92.073798
Ricketts Farm Service of Shelbyna, Inc.	545 E. Maple	Shelbina	Shelby	MO	63468	39.69178	-92.02675
Aldi, Incorporated	475 Pearl Drive	O'Fallon	St. Charles	MO	63366	38.810000	-90.654722
MEMC LLC	501 Pearl Drive	O'Fallon	St. Charles	MO	63376	38.811944	-90.658889
O'Fallon Casting	600 Cannonball Lane	O'Fallon	St. Charles	MO	63366	38.804129	-90.662540
Sysco St. Louis, LLC	3850 Mueller Road	St. Charles	St. Charles	MO	63301	38.831892	-90.514656
Woodbridge Corporation - St. Peters	11 Cermak Blvd.	St. Peters	St. Charles	MO	63376	38.808212	-90.646287
Dollar General MO LLC	7101 Hazelwood Ave	Berkeley	St. Louis	MO	63134	38.766389	-90.340667
LHB Industries	8833 Fleischer Place	Berkeley	St. Louis	MO	63134	38.7589	-90.341740
Ice Cream Specialties, Inc.- St. Louis	8419 Hanley Industrial Drive	Brentwood	St. Louis	MO	63144	38.626517	-90.338842
Howard Bend Water Treatment Plant	700 Water Works Road	Chesterfield	St. Louis	MO	63017	38.6786	-90.545
Missouri American Water Company Central Plant	901 Hog Hollow	Chesterfield	St. Louis	MO	63017	38.688889	-90.523056
Foam Supplies, Inc.	4387 Rider Trail North	Earth City	St. Louis	MO	63045	38.775746	-90.468474
BASF Corporation	2092 Fenton Logistics Park Blvd	Fenton	St. Louis	MO	63026	38.55	-90.46
Missouri American Water Company North Plant	2800 Charbonier Road	Florissant	St. Louis	MO	63031	38.819722	-90.369444
BASF Corporation - St. Louis	3568 Tree Court Industrial Blvd	Kirkwood	St. Louis	MO	63122	38.561389	-90.458056
Accella Polyurethane Systems	2500 Adie Road	Maryland Heights	St. Louis	MO	63074	38.705833	-90.422500
Buckeye International, Inc.	2700 Wagner Place	Maryland Heights	St. Louis	MO	63043	38.710831	-90.420978
Kerry, Inc.	8155 New Hampshire	St Louis	St. Louis	MO	63123	38.563500	-90.329130
ADM Milling Co	5020 Shreve Ave.	St. Louis	St. Louis	MO	63115	38.684167	-90.236944

**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Anheuser-Busch & St. Louis Brewery	One Busch Place	St. Louis	St. Louis	MO	63118	38.596517	-90.212304
Brenntag Mid-South, Inc.	139 East Soper Street	St. Louis	St. Louis	MO	63111	38.555000	-90.247222
United Industries Corporation - Chapin Plant	8464 Chapin Industrial Drive	St. Louis	St. Louis	MO	63114	38.689861	-90.342040
Reichhold LLC 2	249 St. Louis Avenue	Valley Park	St. Louis	MO	63088	38.550319	-90.488365
Vapco Products, Inc.	401 Marshall Rd	Valley Park	St. Louis	MO	63088	38.54951	-90.48606
Americold - St. Louis	8501 Page Boulevard	Vinita Park	St. Louis	MO	63114	38.688219	-90.339269
Chemline, Inc	5151 Natural Bridge Ave	Saint Louis	St. Louis City	MO	63115	38.678210	-90.255389
Brenntag Mid-South, Inc.	126 Chouteau Avenue	St. Louis	St. Louis City	MO	63102	38.615472	-90.190000
Chain of Rocks Water Treatment Plant	10450 Riverview Drive	St. Louis	St. Louis City	MO	63137	38.7556	-90.183800
Chemisphere Corp	2102 Clifton Ave	St. Louis	St. Louis City	MO	63139	38.61751	-90.294400
Elantas Pdg, Inc.	5200 N. Second St.	St. Louis	St. Louis City	MO	63147	38.679889	-90.204333
Harcros Chemicals, Inc.-St. Louis	4330 GERALDINE Ave	St. Louis	St. Louis City	MO	63115	38.6851459	-90.250832
Mallinckrodt	3600 North Second Street	St. Louis	St. Louis City	MO	63147	38.661800	-90.193400
Sensient Colors LLC	2515 N Jefferson Ave	St. Louis	St. Louis City	MO	63106	38.651267	-90.216508
Gateway FS, Inc. - Sainte Genevieve	23860 Bourbon Road	Sainte Genevieve	Ste. Genevieve	MO	63670	37.948690	-90.021095
MFA Agri Service Ste. Genevieve	10940 Industrial Drive	Ste. Genevieve	Ste. Genevieve	MO	63670	37.964701	-90.062015
Dexter LPG Terminal	19905 State Highway 114	Dexter	Stoddard	MO	63841	36.78922	-89.916240
Tyson Chicken, Inc. Dexter, Mo.	1001 East Stoddard St.	Dexter	Stoddard	MO	63841	36.793363	-89.944422
Southeast Cooperative Service Company, Inc.	25564 Co Rd 326	Messler	Stoddard	MO	63771	37.066990	-89.802290
MFA Agri Service Milan	914 E. 3rd St.	Milan	Sullivan	MO	63556	40.201256	-93.114436
Simmons Feed Ingredients Inc. - Milan	832 East 3rd Street	Milan	Sullivan	MO	63556	40.201248	-93.115674
Smithfield Fresh Meats Corp. - Milan, Missouri	22123 Highway 5	Milan	Sullivan	MO	63556	40.218240	-93.118800
Compton Drive Wastewater Treatment Plant	601 COMPTON DRIVE	Branson	Taney	MO	65616	36.658611	-93.215833
Meadows Water Treatment Plant	3718 Fall Creek Road	Branson	Taney	MO	65616	36.622500	-93.256389
Dairy Farmers of America - Cabool	958 Shelton Street	Cabool	Texas	MO	65689	37.120000	-92.106667
Farmers Ag and Grain Supply Inc.	7455 E 54 Hwy	Deerfield	Vernon	MO	64741	37.839153	-94.499236
Mid-West Fertilizer, LLc - Deerfield	1st and Railroad	Deerfield	Vernon	MO	64741	37.837294	-94.505262
Mid-West Fertilizer, Inc. - Metz	154 South Main	Metz	Vernon	MO	64765	37.994955	-94.443511
Mid-West Fertilizer, Sheldon Mo	307 N Old HWY 71	Sheldon	Vernon	MO	64784	37.63996	-94.18139
Backes & Toelke dba Marthasville Ag Center	15998 State Hwy 47	Marthasville	Warren	MO	63357	38.633806	-91.065861

**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Cascades Plastics, Inc.	7501 S Spoede Lane	Warrenton	Warren	MO	63383	38.804743	-91.116974
Buckman Laboratories, Incorporated	14664 East State Highway 47	Cadet	Washington	MO	63630	37.983333	-90.690833
MFA Agri Service Sheridan	103 East Jefferson	Sheridan	Worth	MO	64486	40.519478	-94.610567
Fairfield Non-Stock Co-op Fertilizer Association	4110 W. Blue Hill Road	Ayr	Adams	NE	68925	40.379889	-98.438528
Chief Ethanol Fuels, Inc. (Hastings Plant)	4225 East South Street	Hastings	Adams	NE	68901	40.585000	-98.318889
Equalizer Midwest, Incorporated	4955 East South Street	Hastings	Adams	NE	68901	40.583056	-98.305278
Flanders Provision Company, LLC	2001 Summit Avenue	Hastings	Adams	NE	68901	40.569556	-98.406944
Hastings, NE 5211	150 North Blaine Avenue	Hastings	Adams	NE	68901	40.583692	-98.334968
MacroSource, LLC - Hastings	4935 East J St.	Hastings	Adams	NE	68901	40.568611	-98.305000
Nebraska Cold Storage	600 East 39th Street	Hastings	Adams	NE	68901	40.622500	-98.374722
Noah's Ark Processors LLC Dbw Wr Reserve	1009 W M Street	Hastings	Adams	NE	68901	40.563862	-98.394091
Whelan Energy Center Unit 2	4520 East South Street	Hastings	Adams	NE	68901	40.580132	-98.312315
WinField United --Hastings	5780 East J Street	Hastings	Adams	NE	68901	40.568611	-98.295472
Holstein	9870 S. Main Ave.	Holstein	Adams	NE	68950	40.464114	-98.654283
Juniata	200 S. Depot Street	Juniata	Adams	NE	68955	40.593117	-98.509683
Kenesaw	18250 West 26th St.	Kenesaw	Adams	NE	68956	40.612778	-98.659758
Fairfield Non-Stock Co-op Fertilizer Association	9865 South Showboat blv	Pauline	Adams	NE	68941	40.464167	-98.343889
Royal Hub NH3 Plant	86288 516th Avenue	Orchard	Antelope	NE	68764	42.334133	-98.177992
Country Partners Coop - Albion	2504 Old Mill Road	Albion	Boone	NE	68620	41.698947	-98.012497
Helena Agri-Enterprises, LLC - Albion, NE Facility	2493 State Highway 14	Albion	Boone	NE	68620	41.698688	-98.007958
Valero Albion Plant	2615 260th St	Albion	Boone	NE	68620	41.677500	-97.982222
Central Valley Ag Cooperative - St Edward	3444 325th Ave	St. Edward	Boone	NE	68660	41.562786	-97.859230
Alliance Terminal	2371 Hwy 2	Alliance	Box Butte	NE	69301	42.1075	-102.897222
Berea Simplot Grower Solutions	1610 Co Rd 65	Alliance	Box Butte	NE	69301	42.215557	-102.978058
Panhandle Cooperative Assn	2220 CR 61	Alliance	Box Butte	NE	69301	42.131722	-102.898861
Butte Farm Supply Inc.	48256 St Hwy 12	Butte	Boyd	NE	68722	42.913651	-98.839988
Madison's Great Western	87794 429th Ave	Ainsworth	Brown	NE	69210	42.55027	-99.887740
Aurora Cooperative - Gibbon	44740 West U.S. Hwy 30	Gibbon	Buffalo	NE	68840	40.741757	-98.884688
Gibbon Packing, LLC.	218 East Highway 30	Gibbon	Buffalo	NE	68840	40.753176	-98.838441
The Andersons - Gibbon Facility	6090 Optic Road	Gibbon	Buffalo	NE	68840	40.731111	-98.920556

**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Aurora Cooperative - Buda	6540 East 39th Street	Kearney	Buffalo	NE	68847	40.713608	-98.996989
Bowie Fertilizer, Inc.	204 West North Street	Miller	Buffalo	NE	68858	40.929354	-99.390535
Trotter Fertilizer	317 Cemetary Road	Pleasanton	Buffalo	NE	68866	40.9743966	-99.083655
Aurora Cooperative - Sodtown NH3 Plant	30250 Shelton Road	Ravenna	Buffalo	NE	68869	40.967678	-98.740334
Darling Ingredients, Inc. Ravenna	102 Lincoln Ave.	Ravenna	Buffalo	NE	68869	41.025232	-98.906108
KAAPA Ethanol Ravenna	35955 Navaho Road	Ravenna	Buffalo	NE	68869	41.023749	-98.875110
Bowie Fertilizer, Inc.	201 Railroad Street	Riverdale	Buffalo	NE	68870	40.781900	-99.161500
Agricultural Services Inc., of Shelton	523 Railroad Street	Shelton	Buffalo	NE	68876	40.778341	-98.738688
Central Valley Ag Cooperative - East Hub	1007 County Road O	Oakland	Burt	NE	68045	41.885808	-96.474021
Western International Gas & Cylinders, Inc.	1101 Commercial Avenue	Oakland	Burt	NE	68045	41.847259	-96.466831
Central Valley Ag Cooperative - Tekamah	"B" STREET	Tekamah	Burt	NE	68061	41.765744	-96.224590
Midwest Service Company	649 South Highway 75	Tekamah	Burt	NE	68061	41.761865	-96.220987
Abie	First & Oak St.	Abie	Butler	NE	68001	41.333786	-96.952111
Frontier Coop - Brainard	211 S. Lincoln St.	Brainard	Butler	NE	68626	41.183961	-96.996098
Frontier Coop - Yanka	3541 O Rd	David City	Butler	NE	68632	41.256831	-97.101946
Central Valley Ag Rising City Town NH3	235 Walnut Street	Rising City	Butler	NE	68658	41.19872	-97.297430
Central Valley Ag Ulysses NH3	4th and B Street	Ulysses	Butler	NE	68669	41.066009	-97.201120
Frontier Cooperative - Elmwood	29510 Fletcher Ave	Elmwood	Cass	NE	68349	40.871000	-96.297800
Frontier Cooperative - Greenwood	1 Mile South on U.S. Highway 6	Greenwood	Cass	NE	68366	40.946848	-96.460670
Midwest Farmers Coop-Nehawka	5420 Anderson Drive	Nehawka	Cass	NE	68413	40.836036	-95.996071
Plattsmouth Terminal	13909 Chicago Avenue	Plattsmouth	Cass	NE	68048	40.981525	-95.891937
Frenchman Valley Coop	73687 333 Avenue	Imperial	Chase	NE	69033	40.504770	-101.627388
Imperial, NE 5512	901 East Highway 6	Imperial	Chase	NE	69033	40.504839	-101.625318
Aurora Cooperative - Eldorado NH3 Plant	US HW 14	Aurora	Clay	NE	68818	40.682776	-97.995988
Aurora Cooperative - Clay Center NH3 Plant	401 W. Fairfield	Clay Center	Clay	NE	68933	40.519613	-98.060008
Verona NH3 Facility	1750 Road 315	Clay Center	Clay	NE	68933	40.555149	-97.965667
C & M Supply Inc - Deweese	210 South	Deweese	Clay	NE	68934	40.355917	-98.136889
Edgar, NE 5207	30251 Road R	Edgar	Clay	NE	68935	40.371529	-97.976578
Fairfield Non-Stock Co-op Fertilizer Association	30490 RD-Q	Edgar	Clay	NE	68935	40.408333	-97.995833
Fairfield Non-Stock Co-op Fertilizer Association	2nd and "D" Streets	Fairfield	Clay	NE	68938	40.428333	-98.105556

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Fairfield Non-Stock Co-op Fertilizer Association	31080 ROAD C	Glenvil	Clay	NE	68941	40.493889	-98.241111
Aurora Cooperative - Harvard	108 N. Adams Avenue	Harvard	Clay	NE	68944	40.616750	-98.095123
Aurora Cooperative - Ong NH3 Plant	107 Main Street	Ong	Clay	NE	68452	40.396433	-97.837814
Sutton	West DLD Road	Sutton	Clay	NE	68979	40.610336	-97.880733
Sutton - Hwy 41	6 miles E. of Clay Center on Hwy 41	Sutton	Clay	NE	68979	40.525350	-97.937067
Sutton NH3 Facility	1001 S Saunders Ave	Sutton	Clay	NE	68979	40.596275	-97.861429
Trumbull	647 Hartford Street	Trumbull	Clay	NE	68980	40.677853	-98.277814
Howells 91 & 15	1108 Rd W	Howells	Colfax	NE	68641	41.429231	-97.033343
Cooperative Supply, Inc. - Leigh	2155 Road 1A	Leigh	Colfax	NE	68643	41.692660	-97.243602
Schuyler Cooperative Assn. -Richland Anhy. Plant	R.R. 5 Box 141	Richland	Colfax	NE	68601	41.431341	-97.214392
Schuyler Cooperative Assn. Richland Location	310 E. Front	Richland	Colfax	NE	68601	41.438546	-97.207612
Cargill Meat Solutions Corporation	490 County Road 9	Schuyler	Colfax	NE	68661	41.451400	-97.095000
Nor-Am Cold Storage	481 Road 9	Schuyler	Colfax	NE	68661	41.450744	-97.099126
Schuyler Cooperative Assn. Anhydrous North Plant	Hwy. 15 & Road S	Schuyler	Colfax	NE	68661	41.656042	-97.058926
Schuyler Cooperative Assn. Anhydrous Plant	1303 G Street	Schuyler	Colfax	NE	68661	41.449164	-97.053078
Central Valley Ag Cooperative - West Point 15th	653 15TH Road	West Point	Cuming	NE	68788	41.822842	-96.748908
Kaup Seed & Fertilizer, Inc.	892 18th Rd	West Point	Cuming	NE	68788	41.857860	-96.689891
Quality Pork International	126 West Grant Street	West Point	Cuming	NE	68788	41.838588	-96.713986
West Point Dairy Products, LLC	1715 E Road	West Point	Cuming	NE	68788	41.798414	-96.707619
Trotter Fertilizer	80136 Airport Road	Broken Bow	Custer	NE	68822	41.443297	-99.635073
Trotter Fertilizer	42989 West Hwy 92	Merna	Custer	NE	68856	41.482156	-99.830311
Tyson Fresh Meats, inc. Dakota City, NE	1131 Dakota Avenue	Dakota City	Dakota	NE	68731	42.428889	-96.416944
South Sioux City, NE Facility	6001 Dakota Ave	South Sioux City	Dakota	NE	68776	42.430940	-96.417682
Country Partners Cooperative - Gothenburg	102 8th St	Gothenburg	Dawson	NE	69138	40.930422	-100.168057
Chief Ethanol Fuels, Inc. (Lexington Plant)	1111 East Industry Drive	Lexington	Dawson	NE	68850	40.767082	-99.722585
Tyson Fresh Meats, Inc.-Lexington	1500 Plum Creek Parkway	Lexington	Dawson	NE	68850	40.761111	-99.736944
Frenchman Valley Coop Chappell - Nh3	County Rd 14 at Co. Rd. 165	Chappell	Deuel	NE	69122	41.093028	-102.477861
Dixon Elevator Co.	205 1st	Dixon	Dixon	NE	68732	42.414700	-96.997892
Michael Foods, Inc. d/b/a M.G. Waldbaum Company	105 North Main Street	Wakefield	Dixon	NE	68784	42.271639	-96.864139

**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Cooperative Supply, Inc. - Dodge	239 Front Street	Dodge	Dodge	NE	68633	41.720667	-96.886169
Americold, Fremont	950 South Schneider St.	Fremont	Dodge	NE	68025	41.421648	-96.489616
CF Industries Dist. Facilities, LLC - Fremont	1949 E. County Road S	Fremont	Dodge	NE	68025	41.4781	-96.4725
Fremont Beef Company	960 South Schneider Street	Fremont	Dodge	NE	68025	41.420227	-96.489074
Lincoln Premium Poultry	1325 E. Cloverly Rd	Fremont	Dodge	NE	68025	41.415874	-96.481640
WholeStone Farms Cooperative Inc - Fremont Plant	900 South Platte Avenue	Fremont	Dodge	NE	68025	41.42117	-96.484860
Central Valley Ag Cooperative - Hooper	1870 Highway 275	Hooper	Dodge	NE	68031	41.612268	-96.559261
Frontier Coop - North Bend	641 West 6th Street	North Bend	Dodge	NE	68649	41.460742	-96.787833
Kruger Feed and Seed	320 W 6th St	North Bend	Dodge	NE	68649	41.461364	-96.783734
Kruger Feed and Seed	1923 County Rd 8	North Bend	Dodge	NE	68649	41.477228	-96.771334
Scribner Grain & Lumber	223 railroad street	Scribner	Dodge	NE	68057	41.395320	-96.401450
BHJ USA, LLC	2516 Edward Babe Gomez Ave.	Omaha	Douglas	NE	68107	41.199698	-95.949195
BRD One, LLC	12608 State St	Omaha	Douglas	NE	68142	41.341083	-96.117763
D&D Foods, Inc	9425 N. 48th Street	Omaha	Douglas	NE	68152	41.335000	-95.990000
Florence Water Treatment Plant	2710 Grebe Street	Omaha	Douglas	NE	68112	41.336667	-95.955833
Greater Omaha Packing Co., Inc.	3001 L Street	Omaha	Douglas	NE	68107	41.212111	-95.958611
JBS USA - Omaha Beef Processing Facility	3435 Edward Babe Gomez Ave	Omaha	Douglas	NE	68107	41.209528	-95.965667
LALA U.S.	7122 J Street	Omaha	Douglas	NE	68117	41.215947	-96.022786
Lineage Logistics South Omaha	2523 Gomez Avenue	Omaha	Douglas	NE	68107	41.199593	-95.950889
Lineage Logistics West Omaha	13039 Renfro Circle	Omaha	Douglas	NE	68137	41.202252	-96.118236
Nebraska Beef, Ltd.	4501 South 36th Street	Omaha	Douglas	NE	68107	41.214970	-95.965980
Omaha Steaks "F" Street Plant	9203 "F" Street	Omaha	Douglas	NE	68127	41.217602	-96.055991
Platte West Water Treatment plant	21212 West Q Road	Omaha	Douglas	NE	68022	41.207778	-96.249167
Quality Pork International, Inc.	10404 F Plaza	Omaha	Douglas	NE	68127	41.220517	-96.077605
Quality Refrigerated Services	3301 G Street	Omaha	Douglas	NE	68107	41.218751	-95.963434
Skylark Meats LLC	4430 South 110th Street	Omaha	Douglas	NE	68137	41.214931	-96.084648
Smithfield Packaged Meats Corp. - Omaha, NE	5015 South 33rd Street	Omaha	Douglas	NE	68107	41.20811	-95.961720
SpartanNash Omaha	4228 South 72nd Street	Omaha	Douglas	NE	68127	41.216667	-96.024445
Tyson Processing Services, Inc (Omaha, NE. Plant)	13076 Renfro Circle	Omaha	Douglas	NE	68137	41.203056	-96.116943
MacroSource, LLC Benkelman	70424 Highway 61	Benkelman	Dundy	NE	69021	40.038279	-101.545458



**Risk Management Program (RMP) Sites.** Source: U.S. Environmental Protection Agency, Region 7 RMP Database, December 15, 2022

Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Farmers Cooperative - Exeter	919 N. Exeter Ave.	Exeter	Fillmore	NE	68351	40.654167	-97.450583
Fairmont	2014 Road 12	Fairmont	Fillmore	NE	68354	40.3813	-97.3712
Fairmont, NE 5212	2010 Road 11	Fairmont	Fillmore	NE	68354	40.632146	-97.634525
Farmers Cooperative - Fairmont	E. Prospect St.	Fairmont	Fillmore	NE	68354	40.638629	-97.576172
Manning Grain Company	4 Burress Road	Fairmont	Fillmore	NE	68354	40.580341	-97.499832
Aurora Cooperative - Geneva NH3 Plant	703 G Street	Geneva	Fillmore	NE	68361	40.522576	-97.605702
NE Nitro Geneva LLC	2240 R Street	Geneva	Fillmore	NE	68361	40.53892	-97.58003
NuStar Energy LP-Geneva Terminal	1417 Highway 81	Geneva	Fillmore	NE	68361	40.5517530	-97.5937925
Shickley NH3 Facility	HWY 41 & Road 6	Grafton	Fillmore	NE	68365	40.525028	-97.728317
Farmers Cooperative - Milligan	307 "N" Street	Milligan	Fillmore	NE	68406	40.496300	-97.387024
Farmers Cooperative - Ohioa	702 North Main Street	Ohioa	Fillmore	NE	68416	40.418841	-97.452633
Norder Supply, Inc.-Shickley Branch	511 Highway 74	Shickley	Fillmore	NE	68436	40.422029	-97.737788
Shickley Grain Company	P.O. Box 138	Shickley	Fillmore	NE	68436	40.351870	-97.434230
Campbell	807 Broad St.	Campbell	Franklin	NE	68932	40.300508	-98.728936
Cooperative Producers, Inc - Franklin West	1202 15th Avenue	Franklin	Franklin	NE	68939	40.089180	-98.953002
Hildreth	509 S. Railway St.	Hildreth	Franklin	NE	68947	40.339700	-99.046031
Aurora Cooperative - Upland	Nebraska Spur 31A	Upland	Franklin	NE	68981	40.319430	-98.904137
Nebraska Corn Processing, LLC	107 Potter Street	Cambridge	Furnas	NE	69022	40.281051	-100.159843
E Energy Adams, LLC	13238 E. Aspen Road	Adams	Gage	NE	68301	40.485475	-96.548037
Frontier Cooperative - Adams	531 Main St.	Adams	Gage	NE	68301	40.460780	-96.506491
Farmers Cooperative - Barneston	204 West Grand Ave.	Barneston	Gage	NE	68309	40.047338	-96.577768
Farmers Cooperative - Beatrice	403 South 3rd Street	Beatrice	Gage	NE	68310	40.261503	-96.751124
Farmers Cooperative - Filley	11908 E. Hwy 4	Beatrice	Gage	NE	68357	40.264877	-96.561547
Farmers Cooperative - Hoag	21169 SW 80th Lane	Beatrice	Gage	NE	68310	40.318567	-96.832356
Koch Fertilizer Beatrice, LLC	21178 Southwest 89th Rd.	Beatrice	Gage	NE	68310	40.320000	-96.839167
Nutrien US LLC - Homestead, NE	22292 Southwest 89th Street	Beatrice	Gage	NE	68310	40.310276	-96.839920
Farmers Cooperative - Blue Springs	600 West Broad Road	Blue Springs	Gage	NE	68318	40.140559	-96.671074
Farmers Cooperative - Ellis	30873 Commercial	Ellis	Gage	NE	68310	40.218622	-96.875284
Wymore Fertilizer/Filley	Jct. S. 134th Rd & E. Dogwood Rd	Filley	Gage	NE	68357	40.363639	-96.539583
Farmers Cooperative - Odell	110 Main St.	Odell	Gage	NE	68415	40.046248	-96.800122

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Wymore Fertilizer/Krider	W Spruce RD & State Hwy 112	Odell	Gage	NE	68415	40.071	-96.746000
Farmers Cooperative - Pickrell	583 East Pickrell Road	Pickrell	Gage	NE	68422	40.377690	-96.718268
Farmers Cooperative - Virginia	204 4th Street	Virginia	Gage	NE	68458	40.247226	-96.495526
Wymore Fertilizer Company	4th and G Street	Wymore	Gage	NE	68466	40.121944	-96.658333
Agricultural Services Inc., of Cairo NE	6000 N Hwy 11	Cairo	Hall	NE	68824	41.005243	-98.607673
Aurora Cooperative - Cairo NH3 Plant	10501 W. One-R Road	Cairo	Hall	NE	68824	41.003133	-98.540842
Agricultural Services Inc., of Doniphan NE	101 East Pine Street	Doniphan	Hall	NE	68832	40.769711	-98.369080
Aurora Cooperative - Doniphan Nurse Tanks	.25 mi E of S. Blaine & W. Giltner	Doniphan	Hall	NE	68832	40.772857	-98.354954
Agricultural Services Inc., of Grand Island NE	2777 N. Broadwell Ave	Grand Island	Hall	NE	68803	40.951263	-98.358695
Aurora Cooperative - GI Agronomy	4155 East Hwy 30	Grand Island	Hall	NE	68801	40.941557	-98.292437
JBS - Grand Island Beef Processing Facility	555 South Stuhr Rd	Grand Island	Hall	NE	68801	40.922583	-98.318861
Lineage Logistics - Grand Island	205 East Roberts	Grand Island	Hall	NE	68803	40.948432	-98.352138
McCain Foods USA, Inc., Grand Island, Nebraska	204 East Roberts Street	Grand Island	Hall	NE	68803	40.950031	-98.352884
Agricultural Services Inc., of Wood River NE	207 W Railroad St	Wood River	Hall	NE	68883	40.817718	-98.604026
Aurora Cooperative - Wood River NH3 Plant	6236 S. Schauppsville Rd	Wood River	Hall	NE	68883	40.841976	-98.531470
Green Plains Wood River LLC	7874 South 140th Road	Wood River	Hall	NE	68883	40.814722	-98.611667
Wood River	15123 W. Wood River Rd.	Wood River	Hall	NE	68883	40.828239	-98.629308
Aurora Cooperative - Aurora South NH3 Plant	315 8th Street	Aurora	Hamilton	NE	68818	40.858371	-98.008363
Aurora West, LLC	2103 Harvest Drive	Aurora	Hamilton	NE	68818	40.870035	-98.045509
CF Industries Dist. Facilities, LLC - Aurora	1059 West Highway 34	Aurora	Hamilton	NE	68818	40.875555	-98.099444
Koch Fertilizer, LLC - Aurora Terminal	1101 West Highway 34	Aurora	Hamilton	NE	68818	40.873594	-98.091195
Giltner	605 Giltner Spur	Giltner	Hamilton	NE	68841	40.774703	-98.150469
Central Valley Ag Hampton East NH3	1307 South X Road	Hampton	Hamilton	NE	68843	40.881364	-97.864752
Central Valley Ag Hordville NH3	Oak & Elm Streets	Hordville	Hamilton	NE	68846	41.07739	-97.886161
Aurora Cooperative - Marquette NH3 Plant	203 Railroad Street	Marquette	Hamilton	NE	68854	41.003623	-98.009422
Central Valley Ag Marquette NH3	2304 Highway 14	Marquette	Hamilton	NE	68854	41.025564	-97.996537
Aurora Cooperative - Murphy NH3 Plant	905 Murphy Road	Phillips	Hamilton	NE	68865	40.879877	-98.116141
Central Valley Ag Stockham NH3	Main Street	Stockham	Hamilton	NE	68818	40.718184	-97.944507
Kugler Oil Company - CDF	71748 Rail Road Avenue	Culbertson	Hitchcock	NE	69024	40.226806	-100.830222
Trenton Agri Products LLC	36638 US Highway 34	Trenton	Hitchcock	NE	69044	40.192494	-100.974944



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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Green Plains Atkinson, LLC.	87590 Hillcrest Road	Atkinson	Holt	NE	68713	42.518862	-98.959093
Central Valley Ag Cooperative - O'Neill	87069 494th Avenue	O'Neill	Holt	NE	68763	42.447829	-98.619901
Agricultural Services, Inc. of Boelus, NE	712 Cheyenne Street	Boelus	Howard	NE	68820	41.074801	-98.713045
Aurora Cooperative - Dannebrog NH3 Plant	303 East Depot Street	Dannebrog	Howard	NE	68831	41.115961	-98.544279
Trotter Fertilizer	515 West Market St.	Elba	Howard	NE	68835	41.284764	-98.565409
Aurora Cooperative - St. Paul NH3 Plant	1009 Twin Forks Lane	St. Paul	Howard	NE	68873	41.251021	-98.461634
Farmers Cooperative - Daykin	602 Jefferson Street	Daykin	Jefferson	NE	68338	40.326390	-97.299850
Farmers Cooperative - Diller	603 Commercial Street	Diller	Jefferson	NE	68342	40.105005	-96.936425
Aurora Cooperative - Fairbury NH3 Plant	56725 722 Road	Fairbury	Jefferson	NE	68352	40.292210	-97.191776
Fairbury, NE 5208	71910 Highway 15	Fairbury	Jefferson	NE	68352	40.249293	-97.178646
Farmers Cooperative - Fairbury	56845 Airport Road	Fairbury	Jefferson	NE	68352	40.169437	-97.174161
Loveland Products Inc.	56908 Hwy 8	Fairbury	Jefferson	NE	68352	40.120833	-97.160278
Farmers Cooperative - Harbine	57890 Highway 136	Jansen	Jefferson	NE	68377	40.192150	-96.975776
Farmers Cooperative - Jansen	200 Broad Street	Jansen	Jefferson	NE	68377	40.182852	-97.084874
Farmers Cooperative - Plymouth	72245 578th Ave.	Plymouth	Jefferson	NE	68424	40.295605	-96.993699
Farmers Cooperative - Reynolds	101 North Railway Street	Reynolds	Jefferson	NE	68429	40.058772	-97.337557
Midwest Farmers Coop - Cook	202 South 3rd	Cook	Johnson	NE	68329	40.507901	-96.164062
Midwest Farmers Coop - Elk Creek	425 Elk Street	Elk Creek	Johnson	NE	68348	40.291120	-96.126879
Farmers Cooperative - Sterling	755 Broadway Street	Sterling	Johnson	NE	68443	40.459601	-96.384288
Frontier Cooperative - Tecumseh	600 South 10th. St.	Tecumseh	Johnson	NE	68450	40.362840	-96.186398
Tecumseh Plant	333 South Third Street	Tecumseh	Johnson	NE	68450	40.364980	-96.195933
Aurora Cooperative - Keene	435 Railroad Street	Axtell	Kearney	NE	68924	40.424976	-99.067721
Axtell	101 South Main Street	Axtell	Kearney	NE	68924	40.477153	-99.127817
Cooperative Producers, Inc.	1225 34th Rd	Minden	Kearney	NE	68959	40.512748	-98.915344
KAAPA Ethanol, L.L.C.	8450 KAAPA Lane	Minden	Kearney	NE	68959	40.483268	-99.075345
Clean Harbors Environmental Services, Inc.	2247 South Highway 71	Kimball	Kimball	NE	69145	41.155000	-103.653611
Battle Creek Farmers Cooperative - Bloomfield, NE	229 N. Broadway	Bloomfield	Knox	NE	68718	42.603056	-97.644444
Frontier Cooperative - Bennet	355 Hackberry St.	Bennet	Lancaster	NE	68317	40.677266	-96.506131
Farmers Cooperative - Kramer	101 Main St. (Kramer)	Crete	Lancaster	NE	68333	40.587944	-96.874334
Davey Plant	21100 N. 14th St.	Davey	Lancaster	NE	68017	41.017899	-96.700109

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Farmers Cooperative - Emerald	8800 West Haven	Emerald	Lancaster	NE	68528	40.817763	-96.841454
Farmers Cooperative - Firth	305 Main Street	Firth	Lancaster	NE	68358	40.530528	-96.606483
Enterprise Greenwood Terminal & Storage	18805 West U.S. Highway 6	Greenwood	Lancaster	NE	68366	40.944183	-96.466742
Lineage Logistics - Lincoln	3600 NW 12th Street	Lincoln	Lancaster	NE	68521	40.847457	-96.737354
Rokeyby Generating Station	8000 SW 12th Street	Lincoln	Lancaster	NE	68523	40.731917	-96.737083
Smithfield Packaged Meats Corp. - Lincoln, NE	200 South 2nd Street	Lincoln	Lancaster	NE	68508	40.812361	-96.716722
Sysco Lincoln, Inc.	900 Kingbird Rd	Lincoln	Lancaster	NE	68521	40.855111	-96.734750
Terry Bundy Generating Station	7707 Bluff Road	Lincoln	Lancaster	NE	68517	40.90935	-96.613328
Tri-Con Industries, Ltd. Manufacturing Plant	4000 NW 44th st.	Lincoln	Lancaster	NE	68524	40.854126	-96.780184
Universal Cold Storage	1601 Pioneers Blvd	Lincoln	Lancaster	NE	68502	40.770175	-96.701477
Universal Cold Storage	1700 Center Park Road	Lincoln	Lancaster	NE	68502	40.7661	-96.696243
Farmers Cooperative - Hallam	820 W. Hallam Road	Martel	Lancaster	NE	68404	40.538963	-96.732966
Farmers Cooperative - Raymond North	15912 NW 56th Street	Raymond	Lancaster	NE	68428	40.967010	-96.793014
Farmers Cooperative - Roca	15505 "A" Street	Roca	Lancaster	NE	68430	40.657840	-96.664376
HWTG - Roca	1066 Saltillo Road	Roca	Lancaster	NE	68430	40.700623	-96.708131
Frontier Cooperative - Waverly	11400 N 148th St.	Waverly	Lancaster	NE	68462	40.925704	-96.520209
Koch Fertilizer, LLC - Greenwood Terminal	18805 Highway 6	Waverly	Lancaster	NE	68462	40.941944	-96.467778
Waverly Plant	13151 Dovers Street	Waverly	Lancaster	NE	68462	40.901222	-96.544499
Hershey Simplot Grower Solutions	401 E. Front Street	Hershey	Lincoln	NE	69143	41.159500	-100.996333
NuStar Energy LP- North Platte Terminal	17504 S. Hwy 83	North Platte	Lincoln	NE	69101	40.9764310	-100.755354
Wal-Mart Distribution Center #7018	3001 E. State Farm Road	North Platte	Lincoln	NE	69101	41.093889	-100.730278
Midwest Renewable Energy, LLC	27532 W Hwy 30	Sutherland	Lincoln	NE	69165	41.160833	-101.090000
Battle Creek Farmers Cooperative - BC South	South Hwy 121	Battle Creek	Madison	NE	68715	41.968333	-97.602222
Farmers Pride - Madison	WEST HIGHWAY 32	Madison	Madison	NE	68748	41.829361	-97.470222
Tyson Fresh Meats, Inc., Madison, NE	1200 Industrial Parkway	Madison	Madison	NE	68748	41.817778	-97.468333
Farmers Pride Newman Grove Anhy	County Line Rd.	Newman Grove	Madison	NE	68758	41.742250	-97.770667
City Of Norfolk East Water Plant	111 South 1st Street	Norfolk	Madison	NE	68701	42.031944	-97.406667
City Of Norfolk West Water Plant	300 South 49th Street	Norfolk	Madison	NE	68701	42.029167	-97.482778
Helena Agri-Enterprises, LLC - Norfolk, NE	700 E. Eisenhower Ave	Norfolk	Madison	NE	68701	42.056167	-97.401036
Hiland Ice Cream	700 East Omaha Avenue	Norfolk	Madison	NE	68701	42.017282	-97.397988

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
NuStar Energy LP - Norfolk Terminal	4708 North 13th Street	Norfolk	Madison	NE	68701	42.0890464	-97.4255884
Aurora Cooperative - Central City NH3 Plant	1561 13th Road	Central City	Merrick	NE	68826	41.084390	-98.057547
Green Plains Central City LLC.	214 20th Street	Central City	Merrick	NE	68826	41.109722	-97.971389
Aurora Cooperative - Clarks NH3 Plant	2341 23rd Road	Clarks	Merrick	NE	68628	41.197109	-97.868082
Agroservice, Inc.	Highway 30 and Chestnut Street	Silver Creek	Merrick	NE	68663	41.320556	-97.653889
Bridgeport Ethanol, LLC	10106 South Railroad Avenue	Bridgeport	Morrill	NE	69336	41.642464	-103.075790
Bridgeport, NE 5513	9262 South Railroad Avenue	Bridgeport	Morrill	NE	69336	41.646993	-103.081383
Panhandle Cooperative Assn-Bridgeport	425 W. Railroad	Bridgeport	Morrill	NE	69336	41.668333	-103.105278
Frontier Coop - Belgrade	47271 N. 216 Ave.	Belgrade	Nance	NE	68623	41.461667	-98.069722
Frontier Coop - Genoa	222 Willard St.	Genoa	Nance	NE	68640	41.447257	-97.726022
Midwest Farmers Cooperative - Auburn	504 10th St	Auburn	Nemaha	NE	68305	40.395200	-95.831400
Midwest Farmers Cooperative, Auburn (South Plant)	63896 Railway Dr	Auburn	Nemaha	NE	68305	40.374800	-95.839600
Stateline Ag Enterprises, Inc.	63904 722 Road	Auburn	Nemaha	NE	68305	40.290652	-95.840779
Midwest Farmers Coop-Brock	4th and Main Streets	Brock	Nemaha	NE	68320	40.484511	-95.959668
Heartland Co-op - Howe, NE	203 West Street	Howe	Nemaha	NE	68305	40.321355	-95.819748
Aurora Cooperative - Hardy NH3 Plant	410 West Railroad Street	Hardy	Nuckolls	NE	68943	40.008035	-97.929565
Nelson	1 mile N. of Nelson on Hwy 14	Nelson	Nuckolls	NE	68961	40.219667	-98.068719
C & M Supply Inc. - Oak Plant	Highway S-65A	Oak	Nuckolls	NE	68964	40.253694	-97.896000
C & M Supply Inc.-Ruskin Plant	4609 Hwy 136	Ruskin	Nuckolls	NE	68974	40.147139	-97.845500
C & M Supply Inc.- Abdal Plant	922 Road 3300	Superior	Nuckolls	NE	68978	40.101870	-98.161130
Midwest Farmers Coop - Burr	333 Main St.	Burr	Otoe	NE	68301	40.536466	-96.304506
Cargill Meat Solutions Corporation	2601 Industrial Road	Nebraska City	Otoe	NE	68410	40.666700	-95.880000
Midwest Farmers Coop - Nebraska City	5811 G Road	Nebraska City	Otoe	NE	68410	40.697372	-95.910988
Nebraska City Water Treatment Plant	406 North 1st Street	Nebraska City	Otoe	NE	68410	40.680579	-95.848320
Omaha Public Power Nebraska City Power Station	7264 L Road	Nebraska City	Otoe	NE	68410	40.620556	-95.773611
Midwest Farmers Coop - Palmyra	125 Front St,	Palmyra	Otoe	NE	68418	40.704762	-96.371065
Midwest Farmers Coop-Otoe	2960 "E" Rd.	Syracuse	Otoe	NE	68446	40.724562	-96.182242
Farmers Coop Company	3rd and Market Street	Talmage	Otoe	NE	68448	40.532778	-96.020111
Farmers Cooperative - Burchard	401 1st St.	Burchard	Pawnee	NE	68323	40.145496	-96.351625

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Pawnee Fertilizer Inc Plant	70899 Highway 65	Pawnee City	Pawnee	NE	68420	40.101997	-96.163177
Frenchman Valley Coop	32945 Highway 23	Grant	Perkins	NE	69140	40.840609	-101.697865
Hi Line Cooperative, Inc.-Grant Terminal	32880 Road 759 3/4	Grant	Perkins	NE	69140	40.840173	-101.708695
Mid America Agri Products/Wheatland, LLC	76080 County Rd 338	Madrid	Perkins	NE	69150	40.853091	-101.537016
Frenchman Valley Coop	104 E Hyw 23	Venango	Perkins	NE	69168	40.767112	-102.039278
Helena Agri-Enterprises, LL - Venango, NE Facility	75435 Road 310	Venango	Perkins	NE	69168	40.759767	-102.050279
Funk	U. S. Highway 6	Funk	Phelps	NE	68940	40.459322	-99.262214
Holdrege, NE 2138	11828 733 Road	Holdrege	Phelps	NE	68949	40.451658	-99.298779
Battle Creek Farmers Cooperative - Osmond, NE	West Hwy 20	Osmond	Pierce	NE	68765	42.352222	-97.605556
Battle Creek Farmers Cooperative -- Pierce, NE	0.5 miles west of Hwy 13on Road 854	Pierce	Pierce	NE	68767	42.206944	-97.542778
Battle Creek Farmers Cooperative- Plainview, NE	Junction Highways 20 and 13	Plainview	Pierce	NE	68769	42.350000	-97.804444
Husker Ag, LLC	54048 Hwy 20	Plainview	Pierce	NE	68769	42.350278	-97.706389
ADM Corn Processing - Columbus	3000 East 8th Street	Columbus	Platte	NE	68601	41.421390	-97.288612
Cargill Meat Solutions Corporation - Columbus NE	1529 23rd Street East	Columbus	Platte	NE	68601	41.438211	-97.308563
Frontier Coop - Oconee	24072 310 Ave.	Columbus	Platte	NE	68601	41.472987	-97.521511
Creston Fertilizer Co., Inc.	401 1st Street	Creston	Platte	NE	68633	41.711389	-97.363333
Central Valley Ag Cooperative - Humphrey	26983 467th Street	Humphrey	Platte	NE	68642	41.694430	-97.471917
Farmers Co-Op Association	43980 460th st	Lindsay	Platte	NE	68644	41.4141	-97.542176
Central Valley Ag Cooperative - Monroe	36262 Hwy 22	Monroe	Platte	NE	68647	41.473670	-97.587865
PREISTER AG SUPPLY	30551 430th Ave.	Monroe	Platte	NE	68647	41.537306	-97.676833
Frontier Coop - Tarnov	108 1st Street	Tarnov	Platte	NE	68642	41.617109	-97.500927
Frontier Coop - Osceola	761 Hoosier	Osceola	Polk	NE	68651	41.178071	-97.554553
Central Valley Ag Polk NH3	Railroad Avenue	Polk	Polk	NE	68654	41.078769	-97.784320
Harless Oil Company	320 Polk Avenue	Polk	Polk	NE	68654	41.079021	-97.781042
Central Valley Ag Shelby NH3	1 Blk. East of Birch & Pine Streets	Shelby	Polk	NE	68662	41.194849	-97.420492
Central Valley Ag Stromsburg NH3	M and 23 Roads	Stromsburg	Polk	NE	68666	41.080301	-97.578474
McCook, NE 5511	205 West RR Service Road	Mccook	Red Willow	NE	69001	40.196185	-100.628190
Stateline Ag Enterprises, Inc.	64016 705 Road	Dawson	Richardson	NE	68337	40.044278	-95.820278
Ag Partners - Falls City	65503 706 Rd.	Falls City	Richardson	NE	68355	40.057680	-95.538099

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Falls City Foods	404 Pacific Street	Falls City	Richardson	NE	68355	40.049730	-95.593320
Helena Agri-Enterprises, LLC - Falls City, NE	70514 652 Avenue	Falls City	Richardson	NE	68355	40.045075	-95.593854
Ag Partners Cooperative, Inc.-Humboldt	730 South Railroad	Humboldt	Richardson	NE	68376	40.157279	-95.947011
Nebraska Fertilizer Company, Inc.	65915 706 Road	Rulo	Richardson	NE	68431	40.057222	-95.461667
J.T. Farm Service, Inc.	204 W. 4th Street	Verdon	Richardson	NE	68457	40.149011	-95.714525
Rock County Agronomy Service, LLC	West 1st Street	Bassett	Rock	NE	68714	42.587202	-99.540989
Crete Core Ingredients	2220 Industrial Road	Crete	Saline	NE	68333	40.584620	-96.966028
Smithfield Distribution, LLC	2228 Industrial Road	Crete	Saline	NE	68333	40.582210	-96.963333
Smithfield Fresh Meats Corp. - Crete, NE	2223 Industrial Road	Crete	Saline	NE	68333	40.579722	-96.964722
Farmers Cooperative - Dewitt	2336 County Road UU	De Witt	Saline	NE	68341	40.400762	-96.945757
Farmers Cooperative - Dorchester East	1529 Hwy 33	Dorchester	Saline	NE	68343	40.640042	-97.095004
Farmers Cooperative - Friend	455 County Road D	Friend	Saline	NE	68359	40.654589	-97.301792
Farmers Union Cooperative Company	650 US Highway 6	Friend	Saline	NE	68359	40.655644	-97.264975
Farmers Cooperative - Swanton	101 South Filmore	Swanton	Saline	NE	68445	40.377778	-97.078889
Farmers Cooperative - Dorchester South	.25 mi. S. of Jctn.Hwy 41& 15	Western	Saline	NE	68464	40.506598	-97.179968
Farmers Cooperative - Wilber	2136 State Hwy 41	Wilbur	Saline	NE	68465	40.481927	-96.950082
Dpc Industries, Inc.	11202 South 25th Street	Bellevue	Sarpy	NE	68123	41.147222	-95.954167
FARMERS UNION CO-OP - Gretna	820 Burns Place	Gretna	Sarpy	NE	68028	41.143011	-96.249463
SalonCentric NE	11720 Peel Circle	La Vista	Sarpy	NE	68128	41.184536	-96.091896
Vertical Cold Storage Llc	10711 Olive Street	La Vista	Sarpy	NE	68128	41.184362	-96.078822
Papillion Foods, LLC	10808 S 132nd ST	Omaha	Sarpy	NE	68138	41.1536	-96.124087
Platte South Water Treatment Plant	4001 LaPlatte Road	Omaha	Sarpy	NE	68123	41.071111	-95.973333
City Of Papillion Water Treatment Plant	15406 South 87th St	Papillion	Sarpy	NE	68046	41.086055	-96.048247
Ashland Water Treatment Facility	401 East Highway 6	Ashland	Saunders	NE	68003	41.038889	-96.353056
Frontier Cooperative - Cedar Bluffs	10 Cedar Street	Cedar Bluffs	Saunders	NE	68015	41.399835	-96.609542
Monke Bros. Fertilizer - Cedar Bluffs	2309 County Road 20	Cedar Bluffs	Saunders	NE	68015	41.336483	-96.675187
Schuyler Cooperative Assn. Kavan Anhydrous	2645 C Road 18	Cedar Bluffs	Saunders	NE	68015	41.386109	-96.646248
Frontier Coop - Ceresco	321 S. 1st St.	Ceresco	Saunders	NE	68017	41.055914	-96.642861
Colon	1st & Spruce St.	Colon	Saunders	NE	68018	41.297734	-96.610260
AltEn, LLC	1344 County Road 10	Mead	Saunders	NE	68041	41.196068	-96.477815

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Frontier Coop - Mead	1551 County Road 11	Mead	Saunders	NE	68041	41.225942	-96.504409
Wahoo	462 E. 5th St.	Wahoo	Saunders	NE	68066	41.210402	-96.614346
Frontier Coop - Weston	335 N. Pine	Weston	Saunders	NE	68070	41.196483	-96.735768
Weston	I Rd. & S. T Corner Rd.	Weston	Saunders	NE	68070	41.179329	-96.746143
Gering Anhydrous Ammonia Storage	1290 Rundell Road	Gering	Scotts Bluff	NE	69341	41.820278	-103.641389
Panhandle Cooperative Assn- Scottsbluff	1412 E. 7th Street	Scottsbluff	Scotts Bluff	NE	69361	41.852778	-103.645278
Central Valley Ag Bee NH3	120 Elm Street	Bee	Seward	NE	68314	41.006719	-97.060628
Farmers Cooperative - Cordova	305 Hector	Cordova	Seward	NE	68350	40.716604	-97.355493
Farmers Cooperative - Milford	2775 Van Dorn Road	Milford	Seward	NE	68405	40.784788	-97.097332
Farmers Cooperative - Pleasant Dale	680 159th Road	Pleasant Dale	Seward	NE	68423	40.782239	-96.935168
Farmers Cooperative - Campbell	294th and Fletcher Road	Seward	Seward	NE	68434	40.871973	-97.119986
Farmers Cooperative - Seward East	1333 238th St.	Seward	Seward	NE	68434	40.901806	-97.044736
Central Valley Ag - Tamora NH3	465 South Railroad	Tamora	Seward	NE	68434	40.896281	-97.234213
Central Valley Ag Utica Town NH3	555 First Street	Utica	Seward	NE	68456	40.894742	-97.335160
Mirage Flats Anhydrous Ammonia Storage	4340 440th Road	Hay Springs	Sheridan	NE	69347	42.498889	-102.663611
Farmers Cooperative - Pilger	2.5 miles south of hwys 15&275 Jct.	Pilger	Stanton	NE	68768	41.982480	-97.059280
Bruning Grain & Feed - Bruning	417 West Railway	Bruning	Thayer	NE	68322	40.331976	-97.569034
Aurora Cooperative - Byron NH3 Plant	308 North Railroad	Byron	Thayer	NE	68325	40.002451	-97.766572
Aurora Cooperative - Carleton NH3 Plant	5697 3rd Street	Carleton	Thayer	NE	68326	40.298794	-97.670881
Chester, NE 5534	421 Croop Street	Chester	Thayer	NE	68327	40.007066	-97.615360
Davenport, NE 5206	207 South Maple Avenue	Davenport	Thayer	NE	68335	40.309511	-97.811437
Deshler, NE 5205	5372 Highway 136	Deshler	Thayer	NE	68340	40.147738	-97.731099
Norder Supply, Inc.-Hebron Branch	1st & Olive	Hebron	Thayer	NE	68370	40.167283	-97.595966
Aurora Cooperative - Hubbell	320 North Railroad	Hubbell	Thayer	NE	68375	40.006808	-97.495715
Pender Grain, Inc. - Pender	214 North 3rd Street	Pender	Thurston	NE	68047	42.116112	-96.704918
Green Plains Ord,LLC	48267 Val-E Road	Ord	Valley	NE	68862	41.571100	-98.821400
TROTTER FERTILIZER AND PROPANE	15th & G	Ord	Valley	NE	68862	41.607607	-98.928550
Trotter Terminal dba	81216 Hwy 11	Ord	Valley	NE	68862	41.5860763	-98.888513
Arlington, NE 2607	7098 County Road 15	Arlington	Washington	NE	68002	41.480947	-96.308775
Farmers Union - Elk City	1366 County Rd 19	Bennington	Washington	NE	68007	41.398875	-96.270605



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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Blair Water Treatment Facility	742 East Fairview Drive	Blair	Washington	NE	68008	41.552500	-96.101944
CF Industries Dist. Facilities, LLC - Blair	250 Industrial Park Drive	Blair	Washington	NE	68008	41.543056	-96.099444
Novozymes Blair, Inc	600 S. 1st Street	Blair	Washington	NE	68008	41.53682	-96.11063
Cooperative Producers, Inc.	1062 Highway 4	Bladen	Webster	NE	68928	40.173385	-98.324838
Ely's Inc	101 University Street	Guide Rock	Webster	NE	68942	40.070760	-98.330680
Farmers Union Cooperative Company	102 University	Guide Rock	Webster	NE	68942	40.070806	-98.32875
Cooperative Producers, Inc. - Red Cloud	521 South Webster	Red Cloud	Webster	NE	68970	40.0431	-98.311000
Central Valley Ag - Benedict West NH3	Intersection of Roads F & 22	Benedict	York	NE	68316	41.002674	-97.730805
Central Valley Ag Bradshaw West NH3	1365 C Road	Bradshaw	York	NE	68319	40.881009	-97.789422
Central Valley Ag Gresham NH3	500 Depot Street	Gresham	York	NE	68367	41.029148	-97.403297
Aurora Coop - Henderson	951 Oak St.	Henderson	York	NE	68371	40.785750	-97.817411
Central Valley Ag - Henderson	Two blocks N. of Oak St.	Henderson	York	NE	68371	40.787219	-97.816064
Farmers Cooperative - McCool Junction	104 N. Jack Ave.	Mccool Jct.	York	NE	68401	40.742372	-97.591321
Central Valley Ag Waco NH3	202 Midland Street	Waco	York	NE	68460	40.894662	-97.459783
Central Valley Ag West Blue NH3	County Roads '4' and 'S'	Waco	York	NE	68460	40.741702	-97.464594
Aurora Cooperative - York Location	1320 Road L	York	York	NE	68467	40.883415	-97.615817
Central Valley Ag - York NH3	1403 Road 14	York	York	NE	68467	40.886561	-97.573672
Green Plains York, LLC	1414 County Road O	York	York	NE	68467	40.895682	-97.54294
York Cold Storage	1215 N. Division Ave	York	York	NE	68467	40.872270	-97.597570
York Cold Storage	402 Commerce Street	York	York	NE	68467	40.8723819	-97.596548
AGRILAND FS, Inc. - Canby West	1345 160th St.	Adair	Adair	IA	50002	41.418447	-94.634348
Landus Cooperative - Adair	110 Audubon Street	Adair	Adair	IA	50002	41.500882	-94.637518
AGRILAND FS, Inc (Canby)	1706 160th Street	Casey	Adair	IA	50048	41.4165208	-94.565341
21st Century Cooperative - Fontanelle	220 West Washington	Fontanelle	Adair	IA	50846	41.290260	-94.569111
21Century Coop - Greenfield	601 SW 2nd	Greenfield	Adair	IA	50849	41.296199	-94.460940
Menlo, IA	1069 Pinewood Avenue	Menlo	Adair	IA	50164	41.494708	-94.417923
AGRILAND FS, Inc (Orient)	108 Jackson Road	Orient	Adair	IA	50858	41.2033129	-94.4260435
Landus Cooperative - Stuart	215 South Madison	Stuart	Adair	IA	50250	41.502389	-94.309386
Corning, IA 474	1823 Brooks Road	Corning	Adams	IA	50841	40.979113	-94.770960
Poet Biorefining - Corning, LLC	1680 Brooks Road	Corning	Adams	IA	50841	40.9661861	-94.793333

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Agri Star Meat & Poultry, LLC	220 N. West St.	Postville	Allamakee	IA	52162	43.087222	-91.582500
Farmers Union Cooperative -Postville	325 CO-OP DRIVE	Postville	Allamakee	IA	52162	43.090770	-91.558580
AgVantage FS - Waukon	718 9th Street NW	Waukon	Allamakee	IA	52172	43.277222	-91.490556
Innovative Ag Services - Waukon (new)	2110 9th Street SW	Waukon	Allamakee	IA	52172	43.244653	-91.483967
Welch Inc	2121 Four Corners Rd NE PO Box 389	Waukon	Allamakee	IA	52172	43.29442	-91.44902
Smith Fertilizer and Grain	1605 South 24th Street	Centerville	Appanoose	IA	52544	40.719446	-92.858554
AGRILAND FS INC.-Moravia	802 West North Street	Moravia	Appanoose	IA	52571	40.8915181	-92.8257159
Moravia Propane Terminal	813 W North St	Moravia	Appanoose	IA	52571	40.893256	-92.825830
Herbers Seed NH3	1782 190th St	Audubon	Audubon	IA	50025	41.730150	-94.942163
Brayton, IA 6084	504 Clinton Street	Brayton	Audubon	IA	50042	41.545549	-94.921535
Landus Cooperative - Exira	103 West Washington	Exira	Audubon	IA	50076	41.592785	-94.889320
AGRILAND FS INC. AUDUBON	1914 220TH Street	Hamlin	Audubon	IA	50117	41.688849	-94.915644
Heartland Coop- Belle Plaine	West 8th Street	Belle Plaine	Benton	IA	52208	41.891667	-92.287500
Linn Co-op - Blainstown	7628 21st Ave.	Blainstown	Benton	IA	52209	41.916989	-92.083958
Linn Cooperative Oil Co.-Newhall Plant	2851 71st St	Newhall	Benton	IA	52315	41.993744	-91.940923
New Century FS - Van Horne	806 1st Avenue	Van Horne	Benton	IA	52346	42.00650	-92.09563
New Century FS Vinton South	1901 West 13th St	Vinton	Benton	IA	52349	42.16045	-92.04668
Tama-Benton Cooperative - Vinton	711 South "K" Ave.	Vinton	Benton	IA	52349	42.164167	-92.041111
Target FDC T3895	2115 Technology Parkway	Cedar Falls	Black Hawk	IA	50613	42.477577	-92.472479
AgVantage FS - Dewar - AA	5901 1st St.	Dewar	Black Hawk	IA	50623	42.313418	-92.131988
AgVantage FS - Hudson	1144 Hwy. 63 North	Hudson	Black Hawk	IA	50643	42.416035	-92.447809
Heartland Co-op - Voorhies	440 Main - Voorhies	Hudson	Black Hawk	IA	50643	42.334759	-92.483507
La Porte City, IA 2601	909 Highway 218 North	La Porte City	Black Hawk	IA	50651	42.322000	-92.199295
New Century FS - La Porte City	3434 East Eagle Road	La Porte City	Black Hawk	IA	50651	42.340833	-92.289444
Conagra Brand - Waterloo	2701 Midport Blvd	Waterloo	Black Hawk	IA	50703	42.544588	-92.390776
Crystal Distribution Services, Inc.	1442 Sycamore Street	Waterloo	Black Hawk	IA	50703	42.492778	-92.324165
Hydrite Chemical Co. - Waterloo	2815 WCF&N Drive	Waterloo	Black Hawk	IA	50703	42.537778	-92.368889
Tyson Fresh Meats, Inc. - Waterloo, Ia.	501 North Elk Run Road	Waterloo	Black Hawk	IA	50703	42.508611	-92.261389
Boone, IA 446	1164 S Avenue	Boone	Boone	IA	50036	42.038815	-93.814078
Fareway Stores, Inc.	2300 Industrial Park Road	Boone	Boone	IA	50036	42.061778	-93.845611



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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Landus Cooperative - Boone	1095 T Avenue	Boone	Boone	IA	50036	42.051180	-93.801640
Van Diest Supply Company	1294 S Avenue	Boone	Boone	IA	50036	42.024139	-93.815028
Heartland Co-op Luther	411 Luther Street	Luther	Boone	IA	50152	41.968060	-93.822280
Enterprise Ogden Terminal & Storage	277 220th Street	Ogden	Boone	IA	50212	42.035656	-94.111180
Ogden, IA 434 Satellite	1186 G Avenue	Ogden	Boone	IA	50212	42.037752	-94.046330
Landus Cooperative - Perry	2229 Clover Avenue	Perry	Boone	IA	50220	41.886983	-94.118765
AgVantage FS - Janesville	513 7th Street	Janesville	Bremer	IA	50647	42.643333	-92.458611
Landus Cooperative - Plainfield	1466 Badger Avenue	Plainfield	Bremer	IA	50666	42.8378066	-92.535193
Farmers Cooperative Company-Readlyn	335 West 1st Street	Readlyn	Bremer	IA	50668	42.700262	-92.229657
AgVantage FS - Sumner	1429 Whitetail Ave.	Sumner	Bremer	IA	50674	42.843194	-92.120107
Tripoli, IA 2661 Satellite	1854 Piedmont	Tripoli	Bremer	IA	50676	42.778592	-92.258879
FWC - Bremer	1813 190th Street	Waverly	Bremer	IA	50677	42.774023	-92.392225
Aurora Elevator, Inc.	415 Woodruff Street	Aurora	Buchanan	IA	50607	42.620081	-91.728925
AgVantage FS - Hazleton - AA	1877 110th St	Hazleton	Buchanan	IA	50641	42.630088	-91.907497
Wapsie Valley Creamery	300 10th St NE	Independence	Buchanan	IA	50644	42.477453	-91.8907
AgVantage FS- Jesup	2326 Benson Shady Grove Avenue	Jesup	Buchanan	IA	50648	42.453138	-92.054074
Viafield - Lamont	3196 130th Street	Lamont	Buchanan	IA	50650	42.599950	-91.649212
IAS - Masonville	1760 Washburn Ave	Masonville	Buchanan	IA	50654	42.532788	-91.646310
F. J. Krob & Company - Rowley	95 Rowley Street	Rowley	Buchanan	IA	52329	42.371977	-91.840822
AgVantage FS - Quasqueton - AA	2595 Racine Ave	Winthrop	Buchanan	IA	50682	42.414981	-91.751656
AgState - Albert City	4973 230th Ave.	Albert City	Buena Vista	IA	50510	42.796352	-94.952696
Valero Renewable Fuels Albert City	2356 510th Street	Albert City	Buena Vista	IA	50510	42.775400	-94.941900
AgState- Alta	513 570th Ave.	Alta	Buena Vista	IA	51002	42.69175	-95.30685
Ag State - Linn Grove NH3	881 435th Street	Linn Grove	Buena Vista	IA	51033	42.887910	-95.235021
Ag State-Marathon NH3	210 Militiades Street	Marathon	Buena Vista	IA	50565	42.858637	-94.978479
Rembrandt	1419 480th St.	Rembrandt	Buena Vista	IA	50576	42.823804	-95.128366
The Hillshire Brands Company	315 Vilas Road	Storm Lake	Buena Vista	IA	50588	42.639448	-95.184336
Tyson Fresh Meats, Inc. - Storm Lake, Ia.	1009 Richland Street	Storm Lake	Buena Vista	IA	50588	42.640000	-95.187500
AgVantage FS - Allison	20902 Hwy 3 West	Allison	Butler	IA	50602	42.744167	-92.810556
AgVantage FS - Aplington	17995 Hwy 57	Aplington	Butler	IA	50604	42.583889	-92.870000

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Clarksville, IA 2662 Satellite	29940 160th Street	Clarksville	Butler	IA	50619	42.817206	-92.635628
Innovative Ag Services - Packard	13625 Packard Ave	Clarksville	Butler	IA	50619	42.853724	-92.734621
Landus Cooperative - Kesley	15751 265th St.	Kesley	Butler	IA	50649	42.662510	-92.912670
Landus Cooperative - New Hartford	705 Packwaukee St	New Hartford	Butler	IA	50660	42.564073	-92.619037
Huisinga Fertilizer L.L.C.	19481 310th st.	Parkersburg	Butler	IA	50665	42.600000	-92.833444
Sinclair Elevator Co LLC	32746 Sinclair Avenue	Parkersburg	Butler	IA	50665	42.576030	-92.729220
Farmers Cooperative Company-Shell Rock	727 South Cherry Street	Shell Rock	Butler	IA	50670	42.706058	-92.588467
Landus Cooperative - Farnhamville	105 Garfield Av	Farnhamville	Calhoun	IA	50538	42.274849	-94.398804
Knierim, IA 6	116 1st Avenue East	Knierim	Calhoun	IA	50552	42.451849	-94.461992
Landus Cooperative - Lake City	621 East 6th St.	Lake City	Calhoun	IA	51449	42.260647	-94.727203
Lohrville, IA 5	1216 3rd Street	Lohrville	Calhoun	IA	51453	42.267824	-94.536633
Manson Ag Services, Inc.	1677 Tabor Avenue	Manson	Calhoun	IA	50563	42.548094	-94.541928
Pro Cooperative Inc.-Manson	1303 9th Avenue	Manson	Calhoun	IA	50563	42.527650	-94.535640
Pomeroy, IA 12 Satellite	602 East Harrison	Pomeroy	Calhoun	IA	50575	42.544220	-94.675042
Pomeroy, IA 13	1767 Knoke Drive	Pomeroy	Calhoun	IA	50575	42.519083	-94.764806
Landus Cooperative - Rockwell City	2494 Marshall Ave.	Rockwell City	Calhoun	IA	50579	42.402766	-94.668798
Rockwell City, IA 7	2764 320th Street	Rockwell City	Calhoun	IA	50579	42.325300	-94.578918
Landus Cooperative - Somers	411 6th Avenue	Somers	Calhoun	IA	50586	42.378143	-94.432195
FAC Arcadia	12543 190th Street	Arcadia	Carroll	IA	51430	42.079436	-95.038106
Schroeder Ag LLC	19793 Delta Ave	Arcadia	Carroll	IA	51430	42.067630	-95.036020
Breda, IA 6011	112 Granite Avenue	Breda	Carroll	IA	51436	42.179510	-94.973322
Smithfield Packaged Meats Corp. - Carroll, IA	401 North Grant Road	Carroll	Carroll	IA	51401	42.061872	-94.860442
Wiederin, Inc.	14374 Mahogany Ave.	Carroll	Carroll	IA	51401	42.148101	-94.857498
Landus Cooperative - Dedham	510 North 4th Avenue	Dedham	Carroll	IA	51440	41.915494	-94.818787
Glidden, IA 24	135 East First Street	Glidden	Carroll	IA	51443	42.054901	-94.725159
Lanesboro, IA 26	104 Main Street	Lanesboro	Carroll	IA	51451	42.184918	-94.687904
Lidderdale, IA 25	26479 160th Street	Lidderdale	Carroll	IA	51452	42.125573	-94.775651
Aspinwall Cooperative Company - Manning NH3	12472 - 311th St. (911)	Manning	Carroll	IA	51455	41.905543	-95.044532
Landus Cooperative - Ralston	406 1 st Street	Ralston	Carroll	IA	51459	42.041611	-94.639165
Landus Cooperative - Templeton	326 North Railway Street	Templeton	Carroll	IA	51463	41.921074	-94.942897

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Facility Name	Address	City	County	State	Zip Code	Latitude	Longitude
Elite Octane, LLC	60502 Glacier Rd	Atlantic	Cass	IA	50022	41.422653	-95.030026
Farm Service Coop-Atlantic	54464 Olive Street	Atlantic	Cass	IA	50022	41.440123	-95.000589
Landus Cooperative - Atlantic	60511 Glacier Rd.	Atlantic	Cass	IA	50022	41.417728	-95.030632
21st Century Coop - Cumberland	130 Main Street	Cumberland	Cass	IA	50843	41.270435	-94.869766
Agriland Fs INC. Griswold	54911 Troy Road	Griswold	Cass	IA	51535	41.2269456	-95.1411546
Steinbeck and Sons Inc.	69888 612th St.	Griswold	Cass	IA	51535	41.217869	-95.017561
River Valley Cooperative Sunbury NH3	2223 - 290th Street	(Sunbury) Wilton	Cedar	IA	52778	41.671111	-90.933333
River Valley Cooperative - Clarence NH3	1675 - 140th Street	Clarence	Cedar	IA	52216	41.887483	-91.043075
Twin State, Inc.- Durant	2206 Old Highway 6 West	Durant	Cedar	IA	52747	41.600709	-90.936609
AgVantage FS - Mechanicsville	301 E. Cherry	Mechanicsville	Cedar	IA	52306	41.902222	-91.254722
River Valley Cooperative Stanwood	1142 HWY 30	Stanwood	Cedar	IA	52337	41.887986	-91.14608
Cedar County Cooperative - Tipton	1201 Newton Avenue	Tipton	Cedar	IA	52772	41.771516	-91.098561
AgVantage FS - Downey	202 PeeDee Street	West Branch	Cedar	IA	52358	41.616944	-91.348611
Cedar County Cooperative - West Branch	1546 Baker Avenue	West Branch	Cedar	IA	52358	41.723523	-91.344265
AgVantage FS - Wilton	1830 290th Street	Wilton	Cedar	IA	52778	41.669362	-91.010467
Clear Lake Terminal	3114 Main Street	Clear Lake	Cerro Gordo	IA	50428	43.138040	-93.351936
Five Star Cooperative. - Dougherty	150 North Main Street	Dougherty	Cerro Gordo	IA	50433	42.922677	-93.039736
Cargill Kitchen Solutions	1750 S. Benjamin Ave.	Mason City	Cerro Gordo	IA	50401	43.134995	-93.231240
Five Star Cooperative - Mason City	16682 (A) 245th Street	Mason City	Cerro Gordo	IA	50401	43.120786	-93.187501
Golden Grain Energy, LLC	1822 43rd Street SW	Mason City	Cerro Gordo	IA	50401	43.115530	-93.229776
Helena Agri-Enterprises, LLC - Mason City, IA Fac	16725 245th Street	Mason City	Cerro Gordo	IA	50401	43.116430	-93.187306
North Iowa Coop - Portland North	16228 Thrush Avenue	Mason City	Cerro Gordo	IA	50401	43.130322	-93.125364
Smithfield Packaged Meats Corp. - Mason City, IA	1401 South Eisenhower Ave	Mason City	Cerro Gordo	IA	50401	43.139672	-93.257611
Mason City Terminal	12045 W State Street	Mason City (Emery)	Cerro Gordo	IA	50401	43.134892	-93.278471
New Coop - Meservey	2441 A Balsam Ave.	Meservey	Cerro Gordo	IA	50457	42.929486	-93.475647
North Iowa Cooperative Elevator-Plymouth	19683 325th Street	Plymouth	Cerro Gordo	IA	50464	43.234189	-93.130579
North Iowa Cooperative Elevator-Swaledale	310 5th Street	Swaledale	Cerro Gordo	IA	50477	42.975205	-93.314928
AgVantage FS - Thornton Plant	206 Ash Street E	Thornton	Cerro Gordo	IA	50479	42.945278	-93.375556
Ag State - Aurelia NH3	100 S. Main	Aurelia	Cherokee	IA	51005	42.707369	-95.434362

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## **APPENDIX B.4**

# **REGULATED PIPELINES**

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This information is restricted. Please contact the Region 7 Regional Response Team Coordinator to request this information; or call the EPA Region 7 Emergency Response 24-Hour Number (spill line) at (913) 281-0991 to make an emergency request for this information.

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## **APPENDIX B.5**

# **REGULATED NUCLEAR POWER PLANT SITES**

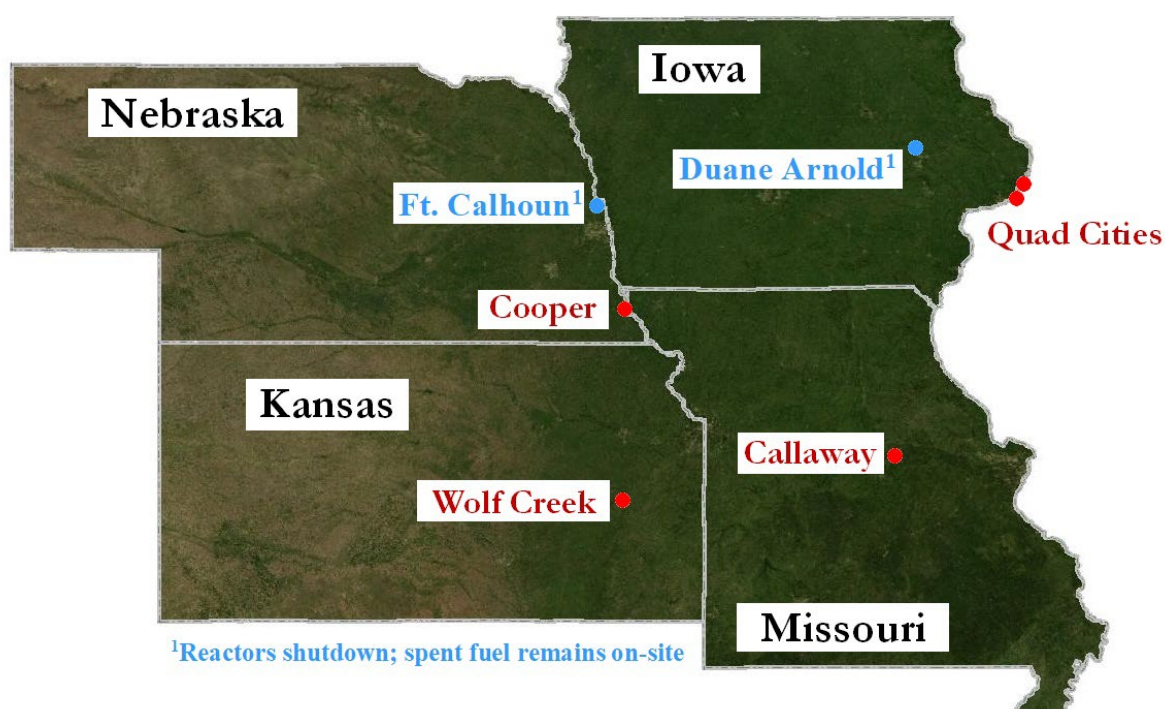
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**Nuclear Power Plant Sites.** Sources: Plant operator websites (December 2022)

Facility Name	City	State	Latitude	Longitude
Callaway	Readsville	Missouri	38.761115	-91.780862
Cooper	Nemaha	Nebraska	40.362168	-95.641235
Duane Arnold	Palo	Iowa	42.100771	-91.777262
Fort Calhoun	Blair	Nebraska	41.520416	-96.077012
Wolf Creek Generating Station	Sharpe	Kansas	38.238918	-95.689422
Quad Cities Nuclear Station	Cordova	Illinois	41.725670	-90.310750

**Figure B.5.1**

**Nuclear Power Plant Sites**



**Region 7 State Radiation Contacts:**

Missouri Department of Health and Senior Services

24/7 Public Health Emergency Hotline: (800) 392-0272

- Jeremy Wilson (573) 522-6131 office, [jeremy.wilson@health.mo.gov](mailto:jeremy.wilson@health.mo.gov)
- Keith Henke (573) 751-6112 office

Kansas Department of Health and Environment  
Radiation Control Program; (785) 296-1560  
Off-hours radiation emergencies: (785) 291-3333

- Jason Meinholdt (785) 296-4359, [jason.meinholdt@ks.gov](mailto:jason.meinholdt@ks.gov)

Nebraska Department of Health and Human Services  
Office of Radiological Health  
Radioactive Materials Program (402) 471-2168 (M-F 8AM to 5 PM)

- Becki Harisis (402) 471-0385, [becki.harisis@nebraska.gov](mailto:becki.harisis@nebraska.gov)
- Bryan Miller (402) 471-6444, [bryan.miller@nebraska.gov](mailto:bryan.miller@nebraska.gov)

Iowa Department of Public Health  
Bureau of Radiological Health  
During Off Hours and on Holidays - (515) 323-4360

- Angie Leek (515) 281-3478 office, [angela.leek@idph.iowa.gov](mailto:angela.leek@idph.iowa.gov)

**EPA's Radiological Emergency Response Team (RERT) Hotline: (702) 528-1740**

#### **EPA Region 7 Radiation Support**

- Chuck Hooper, ARD - Radiation Safety Officer  
(913) 551-7271 office, (913) 645-3809 EPA iPhone, [hooper.charles@epa.gov](mailto:hooper.charles@epa.gov)
- James Johnson, SEMD - OSC Radiation Contact  
(913) 551-7058 office, (816) 516-4954 EPA iPhone, [johnson.james@epa.gov](mailto:johnson.james@epa.gov)
- Tom Mahler, SEMD - Radiation RPM  
(913) 551-7416 office, (816) 604-0546 EPA iPhone, [mahler.tom@epa.gov](mailto:mahler.tom@epa.gov)

#### **Nuclear Regulatory Commission**

- Allan Barker, Regional State Liaison Officer, Region III  
Office: (630) 829-9660, [allan.barker@nrc.gov](mailto:allan.barker@nrc.gov)
- Ryan D. Alexander, Regional State Liaison Officer, Region IV  
Office: (817) 200-1267, [ryan.alexander@nrc.gov](mailto:ryan.alexander@nrc.gov)

#### **Callaway Energy Center, Ameren**

- Callaway Emergency Preparedness Office (573) 676-8111
- Ameren Contact Center (877) 640-5876
- Missouri County Emergency Management Directors (EMD)

- Callaway County EMD Michelle Kidwell (573) 592-2480, [michellekidwell@cceoc.org](mailto:michellekidwell@cceoc.org)
- Gasconade County EMD (573) 486-3621, [gascoemd@ktis.net](mailto:gascoemd@ktis.net)
- Montgomery County EMD (573) 564-2283, [montemd@mcmo.us](mailto:montemd@mcmo.us)
- Osage County EMD (573) 897-3561, [director911@osagecountyema.com](mailto:director911@osagecountyema.com)
- Missouri State Emergency Management Agency (SEMA)
  - Radiological Emergency Preparedness Program (573) 526-9100, <https://sema.dps.mo.gov/about/preparedness.php>; <https://sema.dps.mo.gov/about/staff.php>
  - Jason Davenport, Radiological Emergency Preparedness Manager, [jason.davenport@sema.dps.mo.gov](mailto:jason.davenport@sema.dps.mo.gov)
  - Kelly Mottaz, Radiological Emergency Preparedness Officer, [kelly.mottaz@sema.dps.mo.gov](mailto:kelly.mottaz@sema.dps.mo.gov)
  - Sarah Brockes-Miller, Radiological Emergency Preparedness Officer, [sarah.brockesmiller@sema.dps.mo.gov](mailto:sarah.brockesmiller@sema.dps.mo.gov)

#### **Cooper Nuclear Station, Nebraska Public Power District**

- Cooper Call Center (877) 275-6773
- Emergency Plans: <https://docs.nppd.com/cnsemergencyplanninginformation.pdf>
- Nemaha County, NE – EMD Renee Critser; (402) 274-2552; [nemahaema@windstream.net](mailto:nemahaema@windstream.net)
- Richardson County, NE – EMD Brian Kirkendall; (402) 245-2446; [EMA@richardson-county.us](mailto:EMA@richardson-county.us)
- Atchison County, MO – EMD Rhonda Riley; (660) 744-6308; [ac911@atcomo.org](mailto:ac911@atcomo.org)

#### **Quad Cities Generating Station, Constellation Energy**

- Media Hotline (410) 470-9700
- Plans: [https://constellationpublic.info/quadcities/bro\\_quadcities\\_pib.pdf?v=1563562482](https://constellationpublic.info/quadcities/bro_quadcities_pib.pdf?v=1563562482)
- Clinton County, IA EMD (563) 242-5712, (563) 242-9211 ext. 4532; [www.clintoncounty-IA.gov/EMA](http://www.clintoncounty-IA.gov/EMA)
- Scott County, IA EMD (563) 484-3050; [www.scottcountyiowa.com/ema](http://www.scottcountyiowa.com/ema)

#### **Wolf Creek Generating Station, Wolf Creek Nuclear Operating Corporation**

- Wolf Creek Facility (800) 362-1137, <http://www.wolfcreeknuclear.com/location>
- Plans: <https://static1.squarespace.com/static/563900b0e4b0a554664ebba3/t/5e9492f8330a876799a4b3cd/1>

- Coffey County, KS – Emergency Management; Emergency (620) 364-2123; Alternative Phone (800) 947-4685
  - Emergency Management Director, Amber Presley, Director Phone (620) 364-2721; [apresley@coffeycountyks.org](mailto:apresley@coffeycountyks.org)
  - Tim Patterson, Deputy Director/Radiological Officer; [tpatterson@coffeycountyks.org](mailto:tpatterson@coffeycountyks.org)
  - Julie Rohrer, Planning Specialist, [jrohrer@coffeycountyks.org](mailto:jrohrer@coffeycountyks.org)

**Duane Arnold Energy Center (closed, safe storage until decommissioning), NextEra Energy Resources**

- NextEra Corporate Main Number (561) 691-7171, (319) 851-7612 (on-site)
- NRC Project Manager Marlayna Doell, (301) 415-3178; [marlayna.doell@nrc.gov](mailto:marlayna.doell@nrc.gov)
- Linn County Iowa Emergency Management, (319) 892-6500, [ema@linncountyiowa.gov](mailto:ema@linncountyiowa.gov)

**Fort Calhoun Station (closed, active decommissioning), Omaha Public Power District (OPPD)**

- OPPD Power Outages, Damaged Equipment, and Safety Hazards (800) 554-6773
- NRC Project Manager Jack Parrott (301) 415-6634; [jack.parrott@nrc.gov](mailto:jack.parrott@nrc.gov)
- Washington County Nebraska Emergency Management Director, Dan Douglas (402) 237-7471; [emergencymgr@washingtoncountyne.gov](mailto:emergencymgr@washingtoncountyne.gov)

## **APPENDIX C.1**

# **OIL SPILL REMOVAL ORGANIZATIONS (OSRO), CLASSIFIED BY USCG AND TRACKED IN THE RESPONSE RESOURCE INVENTORY (RRI)**

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**OIL SPILL REMOVAL ORGANIZATIONS (OSRO), CLASSIFIED BY USCG AND  
TRACKED IN THE RESPONSE RESOURCE INVENTORY (RRI)**

**APPENDIX C.1 TO REGION 7 INTEGRATED CONTINGENCY PLAN**

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## Oil Spill Removal Organizations (OSRO):

The U.S. Coast Guard National Strike Force Coordination Center (NSFCC) maintains the Response Resource Inventory (RRI) database listing all local equipment. The database can be accessed at <https://cgrri.uscg.mil/UserReports/WebClassificationReport.aspx>.

For RRI issues please contact: <https://cgrri.uscg.mil/contactUs.aspx> or (252) 331-4400.

TABLE C.1.1: USCG DISTRICT 8 OSROS	
<b>COTP Zone: Aberdeen, South Dakota</b>	
E3 OMI, LLC - OSRO Number: 12	
Clean Harbors Environmental Services - OSRO Number: 13	
National Response Corporation - OSRO Number: 16	
Marine Spill Response Corporation - OSRO Number: 22	
HEPACO, Inc. - OSRO Number: 32	
Heritage Environmental Services, Inc. - OSRO Number: 45	
Environmental Safety & Health Consulting Services - OSRO Number: 50	
Alaska Chadux Network - OSRO Number: 93	
HAZ-MAT Response, Inc. - OSRO Number: 104	
Environmental Restoration, LLC - OSRO Number: 156	
Environmental Works, Inc. - OSRO Number: 587	
Beltrami Industrial Services - OSRO Number: 615	
Ambipar Response SWAT, Inc. - OSRO Number: 669	
Whitewater Rescue Institute - OSRO Number: 817	
<b>COTP Zone: Lincoln, Nebraska</b>	
E3 OMI, LLC - OSRO Number: 12	
Clean Harbors Environmental Services - OSRO Number: 13	
National Response Corporation - OSRO Number: 16	
Marine Spill Response Corporation - OSRO Number: 22	
HEPACO, Inc. - OSRO Number: 32	
Heritage Environmental Services, Inc. - OSRO Number: 45	
Environmental Safety & Health Consulting Services - OSRO Number: 50	
Alaska Chadux Network - OSRO Number: 93	
HAZ-MAT Response, Inc. - OSRO Number: 104	
Environmental Restoration, LLC - OSRO Number: 156	
SLICK Response Services, LTD - OSRO Number: 579	
Environmental Works, Inc. - OSRO Number: 587	
<b>COTP Zone: Lower Mississippi</b>	
Marine Pollution Control Corporation - OSRO Number: 3	
ACME Products - OSRO Number: 10	
E3 OMI, LLC. - OSRO Number: 12	
Clean Harbors Environmental Services - OSRO Number: 13	
National Response Corporation - OSRO Number: 16	
Marine Spill Response Corporation - OSRO Number: 22	
Garner Environmental Services - OSRO Number: 27	
HEPACO, Inc. - OSRO Number: 32	

<b>TABLE C.1.1: USCG DISTRICT 8 OSROS</b>
United States Environmental Services, LLC - OSRO Number: 38
Heritage Environmental Services, Inc. - OSRO Number: 45
Environmental Safety & Health Consulting Services - OSRO Number: 50
Oil Recovery Company, Inc. - OSRO Number: 73
American Pollution Control, Inc. - OSRO Number: 102
HAZ-MAT Response, Inc. - OSRO Number: 104
T&T Marine Salvage, Inc. - OSRO Number: 115
Hulls Environmental Services - OSRO Number: 148
Moran Environmental Recovery - OSRO Number: 151
Environmental Restoration, LLC - OSRO Number: 156
TAS Environmental Services LP - OSRO Number: 157
Jim's Tank Service - OSRO Number: 168
Marion Environmental - OSRO Number: 173
Phoenix Pollution Control & Environmental Services - OSRO Number: 206
NRC Gulf Environmental Services - OSRO Number: 247
Environmental Specialists, Inc. - OSRO Number: 266
Complete Environmental and Remediation Co. - OSRO Number: 348
GFL Environmental Services USA, Inc. - OSRO Number: 350
Accuworx Environmental, Inc. - OSRO Number: 458
Hazmat Services, Inc. - OSRO Number: 525
Enhanced Environmental & Emergency Services, Inc. - OSRO Number: 578
SLICK Response Services, LTD - OSRO Number: 579
Environmental Works, Inc. - OSRO Number: 587
Resolute Environmental & Response Services LLC - OSRO Number: 707
Haz-Mat Special Services LLC - OSRO Number: 775
American Environmental and Industrial Services - OSRO Number: 845
Legacy Environmental - OSRO Number: 921
Toledo Service - OSRO Number: 949
<b>COTP Zone: Ohio Valley</b>
LCM Corporation - OSRO Number: 1
Marine Pollution Control Corporation - OSRO Number: 3
Lewis Environmental Group - OSRO Number: 8
A Clean Environment, Inc. - OSRO Number: 9
E3 OMI, LLC. - OSRO Number: 12
Clean Harbors Environmental Services - OSRO Number: 13
Veolia -ES Special Services, Inc. - OSRO Number: 14
National Response Corporation - OSRO Number: 16
Miller Environmental Group - OSRO Number: 20
Marine Spill Response Corporation - OSRO Number: 22
Garner Environmental Services - OSRO Number: 27
HEPACO, Inc. - OSRO Number: 32
United States Environmental Services, LLC - OSRO Number: 38
Heritage Environmental Services, Inc. - OSRO Number: 45
Environmental Safety & Health Consulting Services - OSRO Number: 50
HAZ-MAT Response, Inc. - OSRO Number: 104

**TABLE C.1.1: USCG DISTRICT 8 OSROS**

Summit Environmental Services - OSRO Number: 107
T&T Marine Salvage, Inc. - OSRO Number: 115
Hulls Environmental Services - OSRO Number: 148
Moran Environmental Recovery - OSRO Number: 151
ACV Enviro (Allstate Power Vac, Clean Venture) - OSRO Number: 155
Environmental Restoration, LLC - OSRO Number: 156
Marion Environmental - OSRO Number: 173
SET Environmental, Inc. - OSRO Number: 245
SWS Environmental Services - OSRO Number: 247
Environmental Specialists, Inc. - OSRO Number: 266
GFL Environmental Services USA, Inc. - OSRO Number: 350
Kemron/CMC Environmental Services - OSRO Number: 437
ECO-Tech USA, LLC - OSRO Number: 446
PECCO, Inc. - OSRO Number: 452
Enviroserve - OSRO Number: 476
Environmental Remediation Services, Inc. - OSRO Number: 519
Enhanced Environmental & Emergency Services, Inc. - OSRO Number: 578
SLICK Response Services, LTD - OSRO Number: 579
Superior Environmental Solutions - OSRO Number: 627
American Environmental and Industrial Services - OSRO Number: 845
M&J Industrial Services - OSRO Number: 889
<b>COTP Zone: Upper Mississippi</b>
Marine Pollution Control Corporation - OSRO Number: 3
ACME Products - OSRO Number: 10
E3 OMI, LLC - OSRO Number: 12
Clean Harbors Environmental Services - OSRO Number: 13
National Response Corporation - OSRO Number: 16
Marine Spill Response Corporation - OSRO Number: 22
Garner Environmental Services - OSRO Number: 27
HEPACO, Inc. - OSRO Number: 32
United States Environmental Services, L.L.C. - OSRO Number: 38
Heritage Environmental Services, Inc. - OSRO Number: 45
Environmental Safety & Health Consulting Services - OSRO Number: 50
Bay West - OSRO Number: 76
American Pollution Control, Inc. - OSRO Number: 102
HAZ-MAT Response, Inc. - OSRO Number: 104
T&T Marine Salvage, Inc. - OSRO Number: 115
Hulls Environmental Services - OSRO Number: 148
Environmental Restoration, LLC - OSRO Number: 156
Phoenix Pollution Control & Environmental Services - OSRO Number: 206
SET Environmental, Inc. - OSRO Number: 245
SWS Environmental Services - OSRO Number: 247
Environmental Specialists Inc - OSRO Number: 266
GFL Environmental Services USA, Inc. - OSRO Number: 350
Enviroserve - OSRO Number: 476

<b>TABLE C.1.1: USCG DISTRICT 8 OSROS</b>
Enhanced Environmental & Emergency Services, Inc. - OSRO Number: 578
SLICK Response Services, LTD - OSRO Number: 579
Environmental Works, Inc. - OSRO Number: 587
Beltrami Industrial Services - OSRO Number: 615
Jarrett Industries, Inc. - OSRO Number: 692
American Environmental and Industrial Services - OSRO Number: 845
Hazmat International - OSRO Number: 864
The Kiesel Company - OSRO Number: 882
M&J Industrial Services - OSRO Number: 889

**TABLE 2 C.1.2: OSRO CONTACT INFORMATION**

OSRO Number	Organization Name	Address	Contacts	Official Phone	Business Phone	Fax Number
1	LCM Corporation	3321 Shenandoah Avenue N.W., Roanoke, VA, 24034	Larry Logan Lawrence Musgrove III	(800) 774-5583	(540) 344-5583	(540) 342-9438
3	Marine Pollution Control Corporation	8631 West Jefferson, Detroit, MI, 48209	Charles Usher William Hazel	(313) 849-2333	(313) 849-2333	(313) 849-1623
8	Lewis Environmental Group	155 Railroad Plaza Royersford, PA, 19468	Stephen Pelna	(610) 495-6695	(610) 495-6695	~
10	ACME Products	2666 N. Darlington Tulsa, OK, 74115	Chris McClure	(918) 836-7184	(918) 836-7184	(918) 836-9197
12	E3 OMI LLC	1004 Industrial Park Drive Clinton, MS, 39056	Jim Smith Jon Henneke	(601) 460-1330	(601)831-1363	~
13	Clean Harbors Environmental Services	42 Longwater Drive Norwell, MA, 02061-9149	John Rodier Chuck Geer	(800) 645-8265	(781) 792-5740	~
16	National Response Corporation / US Ecology	3500 Sunrise Highway Great River, NY, 11739	Christopher Eilers	(631) 328-2517	~	(631) 224-9086
20	Miller Environmental Group	538 Edwards Ave. Calverton, NY, 11933	George Wallace Jerry Coogan	(631) 369-4900	(631) 369-4900	(631) 369-4909
22	Marine Spill Response Corporation	220 Spring Street, Suite 500 Herndon, VA, 20170	Harry Fujii	(925) 383-0381	~	~
27	Garner Environmental Services	1717 West 13th Street Deer Park, TX, 77536	Bruce Dumesnil Aaron Holton	(800) 424-1716	(281) 930-1200	(281) 478-0296
32	HEPACO, Inc.	2711 Burch Drive Charlotte, NC, 28210	Scott Metzger Rhonda Pope	(800) 888-7689	(704) 598-9782	(704) 598-7823
38	United States Environmental Services, L.L.C.	14950 Heathrow Forest Parkway Houston, TX, 77032	Christopher Lynn Hope Scott	(888) 279-9930	(888) 279-9930	(281) 867-4101
45	Heritage Environmental Services, Inc.	6510 Telecom Drive Indianapolis, IN, 46278	Ricky Belk Angie Martin	(800) 487-7455	(317) 243-0811	(317) 486-2852
50	Environmental Safety & Health Consulting Services	1730 Coteau Road Houma, LA, 70364	Trey Boucvalt Peter Plaisance	(985)851-5350	(281)780-4000	(985)853-1978
73	Oil Recovery Company, Inc.	1101 South Conception Street Mobile, AL, 36603	Jason Smith	(251) 432-4223	(800) 350-0443	(251) 433-7681
76	Bay West	5 Empire Drive St. Paul, MN, 55103	Bill Lazarz Jim Stockinger	(651) 291-3442	(651) 291-0456	(651) 291-0099
93	Alaska Chadux Network	347 Azurite Ct Anchorage, AK, 99507	Nathan Hatfield	(907)280-8778	(907)348-2301	(907)348-2330
102	American Pollution Control, Inc.	401 W Admiral Doyle New Iberia, LA, 70560	Mike Watts	(800) 482-6765	(337) 365-7847	(337) 365-8890

OSRO Number	Organization Name	Address	Contacts	Official Phone	Business Phone	Fax Number
104	HAZ-MAT Response, Inc.	1203C South Parker Olathe, KS, 66061	John W. Stockdale Scott Lang	(800) 229-5252	(913) 782-5151	(800) 972-6206
107	Summit Environmental Services	2125 Glennview Drive Evansville, IN, 47720	Jake Mosley Eric Hunter	(877) 421-1744	(812) 421-1744	(812) 421-8106
115	T&T Marine Salvage, Inc.	9723 Teichman Road Galveston, TX, 77554	Kevin Teichman Jim Elliott	(409) 744-1222	(409) 744-1222	(409) 744-5218
148	Hulls Environmental Services	6988 Reck Road Wilson, OK, 73463	Tony Payne David Hull	(580) 668-3456	(580) 668-2222	(580) 668-2255
151	Moran Environmental Recovery	75D York Ave Randolph, MA, 02368	John Silva Sean Boyle	(781) 815-1100	(781) 815-1100	(781) 815-1104
156	Environmental Restoration, LLC	1666 Fabick Drive Fenton, MO, 63026	Adam Bottila Paul Doherty	(888) 814-7477	~	(636) 449-3961
157	TAS Environmental Services LP	3929 California Parkway East Ft. Worth, TX, 76119	Ed Genovese Steve Black	(817) 535-7222	(888) 654-0111	(817) 535-8187
168	Jim's Tank Service	P. O. Box 281431 Memphis, TN, 38168	Nathan Coulpes Lance Berryhill	(901) 634-8680	(901) 626-7009	(870) 732-2029
173	Marion Environmental	115 Parmenas Ln. Chattanooga, TN, 37405	Paul Van Alatyne Louise Gallant	(888) 888-8149	(423) 499-4919	(423) 892-5122
206	Phoenix Pollution Control & Environmental Services	7111 Decker Dr. Baytown, TX, 77520	Nelson Fetgatter Reese Majoue	(832) 247-7273	(281) 838-3400	(281) 424-7748
245	SET Environmental Inc	450 Sumac Road Wheeling, IL, 60090	Andy Saylor Mark Parquette	(224) 688-8308	~	~
247	NRC Gulf Environmental Services	7112 East 7th Avenue Tampa, FL, 33619	Greg Williams Eric Cooper	(800)899-4672	(813)241-0282	~
266	Environmental Specialists, Inc.	3001 E 83rd Street Kansas City, Mo, 64132	Alan E Wolfe	(816) 935-0912	(816) 523-5081	(816) 523-0183
348	Complete Environmental and Remediation Co.	401 County Farm Rd Wayensboro, MS, 39367	Kati Kelley	(601) 794-2704	(601) 735-2541	(601) 794-2740
350	GFL Environmental Services USA, Inc.	19701 S. 97th Ave Mokena, IL, 60448	Joe Halper Ryan Fruendt	(708) 479-6900	~	(708) 479-6890
437	Kemron/CMC Environmental Services	1359A Ellsworth Industrial Blvd, NW Atlanta, GA, 30318	Thomas Thrower John Mount	(678) 857-9581	(404) 601-6926	(404) 636-7162
446	ECO-Tech USA, LLC	50 Easy Street London, KY, 40741	Brian Reams Jason Lewis	(606) 312-7725	(606) 864-3013	~
452	PECCO, Inc.	250 Etter Drive Nicholasville, KY, 40356	Scottie Perdue William Grimes	(859)621-4320	(877)543-9590	(859)887-5610
458	Accuworx Environmental Inc.	23193 Nichols Sawmill Magnolia, TX, 77355	Derek Hight	(832) 934-1221	(832) 934-1221	(832) 415-0140



OSRO Number	Organization Name	Address	Contacts	Official Phone	Business Phone	Fax Number
476	Enviroserve	7640 Whipple Avenue NW North Canton, OH, 44720	Jonathan Haltom Donna Zingaro	(800) 488-0910	(330) 966-0910	(330) 966-1954
519	Environmental Remediation Services, Inc.	4010 Option Pass Fort Wayne, IN, 46818	Lynn Partridge Mark J Weaver	(260) 489-7062	~	(260) 489-5752
578	Enhanced Environmental & Emergency Services, Inc.	1018 Industrial Parkway Clinton, MS, 39056	Justin Plant Ryan Bridgers	(844) 333-0939	(601) 897-4595	(844) 325-0511
579	SLICK Response Services, LTD	2690 Appelt Dr Houston, TX, 77015	Dave Asher Gene Neel	(832) 509-9573	(281) 713-9969	(281) 605-1508
587	Environmental Works, Inc.	1675 Argentine Blvd. Kansas City, KS, 66105	Adam Bottila Robert McRae	(314) 651-7198	(636) 333-3336	(816) 285-8409
615	Beltrami Industrial Services	12297 Hwy 2 NW, Solway, MN, 56678	Jeff Forseth	(218) 751-7537	(218) 751-7537	(218) 751-0236
627	Superior Environmental Solutions	9996 Joseph James Dr, Cincinnati, OH, 45246	Brian Ludwig John Stevens	(513) 874-8355	(513) 874-8355	~
669	Ambipar Response SWAT, Inc.	12 Sunrise Estates Road Watford City, ND, 58854	Brandon Ray	(269) 719-5541	~	~
692	Jarrett Industries, Inc.	1600 Madison Ave South Roxana, IL, 62087	Ron Weber Meghan Riebeling	(618) 251-4116	~	(618) 251-2196
707	Resolute Environmental & Response Services LLC	2814 N Alexander Dr Baytown, TX, 77571	Stfan Ygdevik Eric Arentsen	(832) 799-7830	(409) 692-3855	(713) 673-8013
775	Haz-Mat Special Services LLC	529 S. 16TH ST Laporte, TX, 77571	Billy Flagel Josh Williams	(346) 222-7932	(832) 301-2019	(346) 222-7942
817	Whitewater Rescue Institute	1620 Rogers Ave Suite 6 Missoula, MT, 59808	Mike Johnston Cody Harris	(406) 214-0245	(406) 207-2027	~
845	American Environmental and Industrial Services	13080 Chef Menteur Highway New Orleans, LA, 70129	Wesley Rogers	(833) 571-0495	~	~
864	Hazmat International	2200 E. Davis St. Conroe, TX, 77301	Dustin Rutherford Lindsey Foster	(936) 672-4186	(936) 756-2255	~
882	The Kiesel Company	4801 Fyler Ave St. Louis, MO, 63116	Patricia Kiesel Sutherlin	(314) 351-5500	~	(314) 351-0894
889	M&J Industrial Services	3124 S. 60th Court Cicero, IL, 60804	Dan Quick	(800) 953-9930	(708) 427-1553	~
921	Legacy Environmental	119 Causeway Blvd S. Jefferson, LA, 70121	Cliff Collins	(504)900-1194	~	~

All OSRO contact information gathered from the USCG RRI, January 4, 2024.

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## **APPENDIX C.2**

# **OTHER RESPONSE CONTRACTORS**

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## REMOVAL CONTRACTORS IN REGION 7

For local oil spill removal contractors in the Region 7 States, the following contractors were identified. The responsible party may have other contractors available.

### **Iowa**

Bodine Environmental Services, Inc. – (563) 243-1144  
Clean Harbors Environmental – (515) 262-2949  
EnviroMark Corporation – (563) 388-9100  
Environmental & Incident Response – (515) 854-2223  
Haz-Mat Response, Inc. – (800) 229-5252  
Hydro-Klean, Inc. – (515) 283-0505  
Seneca Companies – (515) 262-5000

### **Kansas**

Eagle Environmental – (316) 944-2445  
Environmental Restoration, LLC – (888) 814-7477  
Haz-Mat Response, Inc. – (800) 229-5252

### **Missouri**

Clean Harbors Environmental – (515) 796-9660  
Environmental Restoration, LLC – (888) 814-7477  
Environmental Works, Inc. – (417) 890-9500  
Heritage Environmental Services – (816) 453-4321  
Mid-America Environmental Solutions – (417) 358-3599  
SET Environmental, Inc. – (314) 890-8600  
Sunbelt Environmental Services, Inc. – (800) 333-5052  
The Kiesel Company – (314) 351-5500

### **Nebraska**

Environmental Restoration, LLC – (888) 814-7477  
Environmental Solutions, Inc. – (888) 908-5700  
Haz-Mat Response, Inc. – (800) 229-5252

### Sources:

1. Cleanupoil.com: <http://www.cleanupoil.com>, January 2024
2. U.S. Coast Guard Response Resource Inventory (RRI):  
<https://cgrri.uscg.mil/UserReports/WebClassificationReport.aspx>, January 2024

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## **APPENDIX C.3**

# **U.S. ENVIRONMENTAL PROTECTION AGENCY RESPONSE TEAMS AND EQUIPMENT**

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**U.S. ENVIRONMENTAL PROTECTION AGENCY RESPONSE TEAMS  
AND EQUIPMENT**

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**Region 7 Emergency Response  
913-281-0991**

---

**Environmental Response Team (ERT)  
732-321-6660**

Building 18 - MS 101  
2890 Woodbridge Avenue  
Edison, NJ 08837

---

**Radiological Emergency Response Team (RERT)**

**John Griggs, Director 334-270-3401**

**Ron Henson, Deputy Director 334-224-4229**

**Sam Poppell, Team Commander 334-270-3414**

---

**Chemical, Biological, Radiological and Nuclear Consequence Management  
Advisory Team (CMAT)**

**EPA Emergency Operations Center 202-564-3850**

## Environmental Protection Agency Region 7 Equipment

The following equipment lists include select items available in EPA Region 7. For a complete list of available EPA Region 7 equipment, contact EPA Region 7 at 913-281-0991.

**TABLE C.3.1: EPA REGION 7 TRAINING AND LOGISTICS CENTER**

Item Description	Manufacturer	Model	Count
Portable Radio	Motorola	571142	15
Portable Radio	Motorola	HT 1250	13
Radio Com II	Scott Health & Safety	200119-168	15
Microphone, Throat	Savox Communications, Inc.	SR65M HT1250	15
Radio Repeater	Motorola	GR1225	2
Portable Satellite Unit-Dish	Hughes Network	DT740	1
Portable Satellite Unit Controller	MIRI	1035661-0007	1
Mobile Satellite Dish System	MIRI	ISUTOSAT96	1
Self-contained Breathing Apparatus (SCBA)	Scott Health & Safety	Air-Pak Fifty 4.5	29
SCBA Tank	Scott Health & Safety	AP 50 4.5 60-Min. (804723-01)	56
Level A Suit	DuPont	Tychem TK Commander	24
Level A Suit	Kappler	M-ZYTRON500	9
Powered Air Purifying Respirator (PAPR)	Scott Health & Safety	C420 Plus CBRN PAPR	15
Flotation Bomber	Apex Outdoor Innovations	AB 1100-HV	9
Escape Pack, 5-Minute	Scott Health & Safety Health	2009164	5
SoundPro Kit	American Sound	DPP 990810	1
XRF X-Ray Fluorescence Analyzer	Thermo Niton	XL3T	16
Monitor, Area	Rae Systems	PGM-6560D	8
AreaRae	Rae Systems	PGM5020	6
Gas Detector	Rae Systems	PGM7360	6
RaeLink 3, Mesh	Rae Systems	RLM-3001	6
Single Gas Monitor- Hydrogen Sulfide	Rae Systems	ToxiRae 2-PGM 1120	6
ToxiRae Pro	Rae Systems	PGM-1860	5
RDK Detector Kit/Software/ProRae Remote Package	Rae Systems	PGM 5020	4
MultiRae Pro	Rae Systems	PGM-6248	4
Chip Measurement System	Draeger Safety	CMS	2
Tube Pump Kit- Air Monitor	Draeger Safety	X-ACT 5000	2
Hydrochloric Acid Monitor	Draeger Safety	X-AM 5100	2
Multi-gas P I D	Draeger Safety	X-AM-7000	2
Multi-gas Chemical Detection Monitor	Drager Safety	4543505	2

**TABLE C.3.1: EPA REGION 7 TRAINING AND LOGISTICS CENTER**

Item Description	Manufacturer	Model	Count
Flashpoint/Combustibility Detector	ERDCO	RT-1 AND 03SF	2
HazCat Kit	HazTech Systems	HazCat Kit	2
HazCat Kit	HazTech Systems	KT2011	2
Soil Analyzer	Ohio Lumex	RP91C	2
Chemical Agent Detector	Proengin	AP2CE	2
UC AP4C Chemical Agent Detector	Proengin	UCAP4C	2
Multi-gas Detector	Rae Systems	PGM-50-5P	2
Single Gas Monitor- Phosphine	Rae Systems	ToxiRae 2-PGM 1192	2
Analyzer, Toxic Vapor	Thermo Environmental Instruments	TVA 2020	2
Chemical Identifier	Ahura Scientific	First Defender	1
Civil Defense Kit	Draeger Safety	4500231	1
Pump Kit	Draeger Safety	Accuro	1
Detection, Chemical, Colorimetric Detector, Pump Electrical	Draeger Safety	Accuro 2000	1
Detector, Electronic Radon	DurrIDGE	RAD 7	1
Haz Cat Kit	HazTech Systems	HazCat Kit	1
Conversion HazCat Test Kit	HazTech Systems	KT 1035	1
Chemical Identification Kit	HazTech Systems	KT1209	1
Portable Chemcassette Tape Gas Detector	Honeywell	SPMF-P1US SPM Flex	1
Analyzer, X-Ray Fluorescence Spectrometer	Innov-X Systems	A-4000 S	1
Benzene Analyzer	Lumex	BA15	1
Analyzer, Mercury	Lumex	RA 915 Light	1
Thermal Imaging Camera	MSA Systems, Inc.	EVO 5000	1
Vacuum, Mercury Recovery	Nikro Industries	MV00688-SS	1
Mercury Vapor Analyzer	Ohio Lumex	RA915+	1
Mercury Vapor Analyzer	Ohio Lumex	RA-915T/M	1
Photoionization Detector ppbRae	Rae Systems	PGM7240	1
Single Gas Monitor- Sulfur Dioxide	Rae Systems	ToxiRae 2 -PGM 1130	1
Thermometer, Laser	Raytheon Data System	ST80 Pro Plus	1
Electronic Personal Dosimeter	Siemens	EPD MK 23	21
Monitor Air	RADECO	H810	4
Meter, Beta/Gamma/Neutron	Ludlum Measurements	Model 15 Beta, Gamma, Neutron Meter	3
Radiation Meter, Micro R, Low Level Gamma	Ludlum Measurements	Model 192 Micro R	3
Ratemeter, Digital Scalar	Ludlum Measurements	Model 2241-2 Digital Scalar/Ratemeter	3

**TABLE C.3.1: EPA REGION 7 TRAINING AND LOGISTICS CENTER**

Item Description	Manufacturer	Model	Count
Ratemeter, Digital Scalar	Ludlum Measurements	Model 2241-3 Digital Scalar/Ratemeter	3
Alpha/Beta Counter	Ludlum Measurements	3030P	2
Meter, Survey	Ludlum Measurements	Model 2221 General Survey Meter	2
Radiation Detector	Teletrix Corporation	TXR 43	2
Meter Ion Chamber	Thermo	RO 20	2
Radiation Detection SAM 940	Berkeley Nucleonics	6997	1
Radiation Detector, Nuclear Detection System	Berkeley Nucleonics	3X3	1
Radiation Detector, Nuclear Detection System	Berkeley Nucleonics	SAM 940	1
Radiation Detector, Nuclear Detection System	Berkeley Nucleonics	SAM 940-3G	1
Radiation Air Monitor	Canberra	00-6828-1.0	1
Radiation Meter	Ludlum Measurements	2241-3	1
Survey Meter	Ludlum Measurements	2401-ECA	1
Ludlum Gamma Detector	Ludlum Measurements	44-20	1
Monitor Radiation Portal	Ludlum Measurements	52-1	1
Meter, Survey	Ludlum Measurements	Model 12 General Survey Meter	1
Meter, Survey	Ludlum Measurements	Model 14c General Survey Meter	1
Micro Rate Meter	Ludlum Measurements	Model 19	1
Radiological, Beta, Gamma, Neutron Exposure Meter	Ludlum Measurements	Radiological, Beta, Gamma, Neutron Exposure Meter	1
Radiological, Personnel Portable Monitor	Ludlum Measurements	Radiological, Personnel Portable Monitor	1
Radiation Detection	Thermo Scientific	Identifinder NHH	1
Air Sampler, High Volume (polyurethane foam [PUF])	General Metal Works	Ps1-Hi-Vol	13
Sampling, Air Sampling, Pump	Environmental Monitoring Systems	Mega-lite High Vol Pump	9
Air Sampling, Calibration Kit	General Metal Works	Migration - Air Sampling, Calibration Kit	7
Air Sampler, High Volume, Mass Flow (total suspended particulates [TSP])	Thermo Electron Corp	GS2313-105 TSP	6
Air Sampler, High Volume—Volumetric (TSP)	Thermo Electron Corp	TSP Vari-Flo-GV2360-70-105	6
Air Sampler, High Vol (PUF)	General Lab	PS1-Hi-Vol	3
Primary Flow Calibrator	Mesa Labs	Defender 510-M	3
E-Perm, Radon Detection System	Rad Elec, Inc.	SPER-1E	3

**TABLE C.3.1: EPA REGION 7 TRAINING AND LOGISTICS CENTER**

Item Description	Manufacturer	Model	Count
Monitor, Air	TSI, Inc.	8533EP	3
Water Sampler, Eckman	Wildco	196	1
Water Sampler, Kemmer	Wildco	1200	1
Water Quality Meter	YSI	556MPS	1
Multiparameter Sensor	YSI	Pro-DDS	4
pH Meter	Oakton	Eco Tester pH2	3
Meter, Multi-parameter Display System	YSI	556 MPS	2
Detection, Water Quality, Meter, Water	Pine Environmental	556 MPS Water Quality Meter	1
Level A Suit	Kappler	2X- Zytron500	4
Sked, Rescue	SKEDCO, Inc.	SK-250	2
Heat Stress Monitor	3M	Quest Temp 34	1
Decontamination, Spill Control, Oil Skimmer	Action Instruments	18DH	1
Level A Suit Pressure Tester	DuPont	DPP 990810	1
Pressure Test Kit, Level A Suits	DuPont	SERIES 2000	1
Kit, Medical Monitoring	Omron Healthcare, Inc.	R7 Medkit	1
Shelter, Decon, 2 Line	TVI	SD0-HZB06-GZ	1
Shelter, Decon, Individual	TVI	SD1-TTB02-GZ	1
Shelter, Decon, 3 Line	TVI	SD3-UZA08-GZ	1
Decontamination, Accessory, Water Heater	TVI	SF-12	1
Decontamination, Accessory, Water Heater	TVI	SF-6E	1
Water Heater Decon	TVI	WH-340-1-1	1
ATV 4x4	Kawasaki	Mule 3010	2
Trailer	US Cargo	USC816TA3	2
Equipment Trailer-Boom	Aluma	64133	1
Automatic Crane, Dodge	Auto Crane Company	3203 PRX	1
Cargo Trailer, EPA-1555	Continental	CC714TA2	1
Gooseneck Cargo (8k X 2)	H & H Trailer	GC 24 2	1
JDCI Boat Trailer	JDCI Enterprise	2426 TH 120	1
Geoprobe	KEJR Inc.	6712 DT	1
Mobile Command Post	LDV	NCC26LLS260 03	1
Tunnel Boat	Lowe Boats	RX18PT	1
Single Axle Utility Trailer	Maxey	5R8SA12196M002101	1
Utility Task Vehicle	Polaris	2012 RZR	1
UTV- Ranger	Polaris	Ranger	1
Seark Dive Boat	Seark Marine, Inc.	2408-B	1

**TABLE C.3.1: EPA REGION 7 TRAINING AND LOGISTICS CENTER**

Item Description	Manufacturer	Model	Count
Segway Adventurer	Segway	X2SE	1
Powered Industrial Truck	TCM	FTB 16 7	1
Cargo Trailer	Wells Cargo	18 Foot	1
Storage/ Office Trailer	Wells Cargo	E2424	1
Digital Pen, Capture-X	Anoto, Inc.	DP 201	21
Cord Reel	Bayco	755	9
Solar Panel	Shell Solar	ST36	6
General, Tools, Air Compressor	Coleman	919.16732	4
Scale, Analytical Equipment	Migration - Missing Manufacturer	KS-55	4
Garmin GPS	Garmin	7200	3
Compact Thermal Imager	FLIR	E6	2
Detector, Lightning	Outdoors Technologies, Inc.	Strike Alert LD1000	2
Bauer Compressor	Bauer	BC18 1 10 E1	1
Oven, Convection	Black & Decker	TRO4075B1	1
Printer, Photo	Canon	IP100	1
Camera, ID	Canon	Power Shot S3IS	1
Torpedo Heater	Dayton	3E219E	1
Electric, Multimeter	Fluke	87V	1
Global Positioning System	Garmin	ETREX GPS	1
Generator, 6500 Watt	Generac Portable Products	5940	1
Generator	Generac Portable Products	0059402-6500	1
Heavy Duty Video Inspection System	General Tools & Instruments	DCS312	1
Forklift Trailer Attachment	Global	38	1
Strapping Cart	Global Industrial	Cart Strapping	1
Vestil Forklift Tow Base 3-Ball Hitch	Global Industrial	Hitch-3B	1
Chore Master	Honda	CM-2203-OMHC	1
Inverter Generator	Honda	EB200I	1
Engine Driven, Trash Pump	Honda	WT30X	1
Balance, Analytical	Intelligent Computer	XA160	1
Portable Pump	ISCO	60-3004-060	1
Utility Locator	Leica	5501 Digicat	1
High Speed Pulling Winch	Portable Winch	PCW5000-HS	1
Fan, Ventilation, Turbo	Ram Fan	EFC150X	1
Weather Station, Wireless	WeatherHawk	WeatherHawk, WXT520	1

**TABLE C.3.2: EPA REGION 7 FENTON, MISSOURI FIELD OFFICE**

Item Description	Manufacturer	Model	Count
Portable Radio	Motorola	XTS 5000R	7
Self-contained Breathing Apparatus (SCBA)	Scott Health & Safety	Air-Pak Fifty 4.5	7
SCBA Tank	Scott Health & Safety	AP 50 4.5 60 Min. (804723-01)	14
Powered Air Purifying Respirator (PAPR)	Scott Health & Safety	C420 Plus CBRN PAPR	3
Escape Pack, 5-Minute	Scott Health & Safety	2009164	2
Level A Suit	DuPont	Tychem TK Commander	2
Single Gas Detector, ToxiRae II	Rae Systems	ToxiRae Ii	7
Rae Link 3-Wireless Modem	Rae Systems	RLM-3000	5
Monitor, Area	Rae Systems	PGM-6560D	4
Multi-gas Detector	Rae Systems	PGM-50-5P	2
Multi-Rae Pro	Rae Systems	PGM-6248	2
First Defender, Chem ID	Ahura Scientific	Raman Unit	1
Chip Measurement System	Draeger Safety	CMS	1
HazCat Kit, WMD	HazTech Systems	KT1035	1
HazCat Kit	HazTech Systems	KT2011	1
Portable Chemcassette Tape Gas Detector	Honeywell	SPMF-P1US SPM Flex	1
Analyzer, X-RAY Fluorescence Spectrometer	Innov-X Systems	A-4000 S	1
Analyzer, Mercury	Lumex	RA 915 Light	1
Vacuum, Mercury Recovery	Nikro Industries	MV00688-SS	1
Chemical Agent Detector	Proengin	AP2CE	1
Photoionization Detector ppbRae	Rae Systems	PGM7240	1
GAS DETECTOR	Rae Systems	PGM7360	1
Rae Rapid Deployment Kit	Rea Systems	039 T000 0011	1
Hazmat ID Command System	SENSIR Technologies	023 1005	1
Analyzer, Toxic Vapor	Thermo Environmental Instruments	TVA 2020	1
Electronic Personal Dosimeter	Siemens	EPD MK 23	4
Scale Rate Meter/Pancake Detector/Jose Negron	Ludlum Measurements	2241-2	1
Survey Meter	Ludlum Measurements	2401-S	1
Radiological, Beta, Gamma, Neutron Exposure Meter	Ludlum Measurements	Radiological, Beta, Gamma, Neutron Exposure Meter	1
Radiological, Digital Scaler/ Ratemeter	Ludlum Measurements	Radiological, Digital Scaler/ Ratemeter	1
Radiation DETECTION	Thermo Scientific	Identi-finder NGH	1
Total Organic Carbon Analyzer	Wacker Neuson	GP 5600	1

**TABLE C.3.2: EPA REGION 7 FENTON, MISSOURI FIELD OFFICE**

Item Description	Manufacturer	Model	Count
First Aid Kit	Global Industrial Equipment	436531	3
PAPR, Air Purifying Respirator	Scott Health & Safety	C420 Plus CBRN PAPR	3
Thermometer, Laser	Raytheon Data System	ST80 PROPLUS	1
Tunnel Boat	Aluma Craft	1546A	1
ATV 4x4	Kawasaki	Mule 3010	1
Powered Industrial Truck LP Fuel	Komatsu	FG15HT 15	1
Tunnel Boat	Lowe Boats	RX18PT	1
Boat	Lowe Boats	L1852M2	1
Equipment Trailer, EPA-2309	Maxie	Migration - Equipment Trailer EPA-2309	1
Trailer	U.S. Cargo	USC816TA3	1
Weather Station, Wireless	WeatherHawk	WeatherHawk, WXT520	1
Compressor, Air	Thomas Scientific	TG-250H-59E	3



## **APPENDIX D.1**

# **STATE EMERGENCY RESPONSE COMMISSIONS**

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## **REGION 7 STATE EMERGENCY RESPONSE COMMISSIONS (SERC)**

### **IOWA**

Joseph Ascherl  
Camp Dodge JFHQ  
6100 NW 78th Avenue  
Johnston, Iowa 50131  
Phone: 515-725-3297  
Email: [joseph.ascherl@iowa.gov](mailto:joseph.ascherl@iowa.gov)

Note: The Iowa Emergency Response Commission was dissolved in 2017 and all responsibilities were assumed by Iowa Homeland Security & Emergency Management and Iowa Department of Natural Resources.

### **KANSAS**

Devan Tucking  
Kansas Commission on Emergency Planning and Response  
c/o Kansas Division of Emergency Management  
2800 SW Topeka Blvd  
Topeka, KS 66611  
Phone: 785-217-7233  
Email: [devan.tucking@ks.gov](mailto:devan.tucking@ks.gov)

### **MISSOURI**

Chris Berndt, Chair  
Missouri Emergency Response Commission  
2302 Militia Drive  
P.O. Box 3133  
Jefferson City, MO 65102  
Phone: 573-526-9113  
Email: [berndt.chris@taney.mo.gov](mailto:berndt.chris@taney.mo.gov)

### **NEBRASKA**

John Grimes, Chair  
Nebraska Emergency Management Agency  
2433 NW 24th Street  
Lincoln, NE 68524-1801  
Phone: 402-471-7176

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## **APPENDIX D.2**

# **LOCAL EMERGENCY PLANNING COMMISSIONS**

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## **REGION 7 LOCAL EMERGENCY PLANNING COMMISSIONS**

For Local Emergency Planning Committees (LEPC) Contact Information in the Region 7 states, go to:

Iowa - <https://homelandsecurity.iowa.gov/programs/lepc/>

Kansas - <https://www.kansastag.gov/227/Local-Emergency-Planning-Committees>

Missouri - <https://sema.dps.mo.gov/about/merc.php>

Nebraska - <https://nema.nebraska.gov/local-emergency-planning-committees.php>

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## **APPENDIX D.3**

# **REGION 7 REGIONAL RESPONSE TEAM MEMBERS**

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**REGIONAL RESPONSE TEAM MEMBERS**  
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## **1.0 REGION 7 REGIONAL RESPONSE TEAM (RRT)**

**CO-CHAIR:** Michael Sams

U.S. Coast Guard, Eighth Coast Guard District

**CO-CHAIR:** Adam Ruiz

U.S. Environmental Protection Agency Region 7

## **2.0 U.S. ENVIRONMENTAL PROTECTION AGENCY**

### **PRIMARY:**

**Adam Ruiz**

U.S. Environmental Protection Agency  
Region 7 Superfund and Emergency Management Division  
11201 Renner Boulevard  
Lenexa, KS 66219

WORK: (913) 551-7926

24-HOUR: (913) 281-0991

E-MAIL: [ruiz.adam@epa.gov](mailto:ruiz.adam@epa.gov)

### **ALTERNATE:**

**Todd Davis**

U.S. Environmental Protection Agency  
Region 7 Superfund and Emergency Management Division  
11201 Renner Boulevard  
Lenexa, KS 66219

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24-HOUR: (913) 281-0991

E-MAIL: [davis.toddh@epa.gov](mailto:davis.toddh@epa.gov)

### **COORDINATOR:**

**Eric Nold**

U.S. Environmental Protection Agency Region 7  
Superfund and Emergency Management Division  
11201 Renner Boulevard  
Lenexa, KS 66219

WORK: (913) 551-7488

24-HOUR: (913) 281-0991

E-MAIL: [nold.eric@epa.gov](mailto:nold.eric@epa.gov)

### **ADMINISTRATIVE SUPPORT / POINT OF CONTACT:**

**Eric Deselich**

Tetra Tech, Inc. / Superfund Technical Assessment and Response Team  
415 Oak Street  
Kansas City, MO 64106

WORK: (816) 412-1750

E-MAIL: [eric.deselich@tetrattech.com](mailto:eric.deselich@tetrattech.com)

### **3.0 DEPARTMENT OF HOMELAND SECURITY UNITED STATES COAST GUARD**

#### **PRIMARY:**

##### **Michael Sams**

USCG, Eighth Coast Guard District (drm)  
500 Poydras Street, Room 1330  
New Orleans, LA 70130

WORK: (504) 671-2234  
24-HR: (855) 485-3727  
E-MAIL: [michael.k.sams@uscg.mil](mailto:michael.k.sams@uscg.mil)

#### **ALTERNATE 1:**

##### **Keyth Pankau**

USCG, Eighth Coast Guard District (drm)  
500 Poydras Street, Room 1330  
New Orleans, LA 70130

WORK: (206) 815-1056  
24-HR: (855) 485-3727  
E-MAIL: [keyth.a.pankau2@uscg.mil](mailto:keyth.a.pankau2@uscg.mil)

#### **ALTERNATE 2:**

##### **CWO4 Brandon Todd**

USCG, Eighth Coast Guard District (drm)  
500 Poydras Street, Room 1330  
New Orleans, LA 70130

WORK: (571) 608-0442  
24-HR: (855) 485-3727  
E-MAIL: [brandon.l.todd@uscg.mil](mailto:brandon.l.todd@uscg.mil)

#### **COORDINATOR:**

##### **Todd Peterson**

USCG, Eighth Coast Guard District (drm)  
500 Poydras Street, Suite 1330  
New Orleans, LA 70130

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24-HR: (855) 485-3727  
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**USCG NATIONAL STRIKE FORCE COORDINATION CENTER: (919) 331-6000**

Atlantic Strike Team (609) 724-0008  
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### **ALTERNATE:**

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Open position

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## **APPENDIX D.4**

### **REGION 7 AREA COMMITTEE**

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## **1.0 EMERGENCY CONTACTS**

### **1.1 EMERGENCY RESPONSE CONTACTS (24-HOUR NUMBERS)**

National Response Center (NRC).....	(800) 424-8802
USCG, Eighth District .....	(504) 589-6225
EPA, Region VII .....	(913) 281-0991
Iowa Dept. of Natural Resources .....	(515) 725-8694
Kansas Dept. of Health & Environment .....	(785) 296-1679
Missouri Dept. of Natural Resources.....	(573) 634-2436
Nebraska Dept. of Environment and Energy .....	(402) 471-2186 / (402) 479-4921

### **1.2 RESPONSE AND/OR PLANNING ASSISTANCE CONTACTS**

Agency Toxic Substance & Disease for Registry (ATSDR).....	(770) 488-7100
American Petroleum Institute .....	(202) 682-8000
Bureau of Explosives via CHEMTREC .....	(800) 424-9300
Centers for Disease Control (CDC) .....	(770) 488-7100
Chemical Transportation Emergency Center (CHEMTREC) .....	(800) 424-9300
Planning assistance .....	(202) 887-1255
Chlorine Institute .....	(202) 775-2790
Environmental Response Team (ERT) .....	(908) 321-6660
National Pesticides Telecommunication Network.....	(800) 858-7378
National Pollution Fund Center (NPFC).....	(202) 795-6084/6073
NPFC Command Duty Officer (after hours).....	(202) 424-8802
OSHA Hot-Line .....	(800) 321-6742

Public Health Services (PHS) .....	(816) 426-3294
RCRA/CERCLA Hot-Line .....	(800) 424-9346
Safe Drinking Water Act .....	(800) 426-4791
SARA/CEPP Hot-Line.....	(800) 535-0202
Scientific Support Coordinators (SSC)	
NOAA.....	(202) 549-7759
EPA.....	(908) 321-6660
Superfund Technical Assistance and Response Team (START) .....	(913) 461-8108/8105
NIOSH Technical Information .....	(800) 356-4674
National Fire Equipment System.....	(209) 466-9512
7:45 - 4:15 Cen. Time .....	(817) 334-2605
2:15 - 3:15 Pac. Time .....	(209) 946-6382
USCG National Strike Force Coordination Center (NFSCC) .....	(919) 331-6000
Atlantic Strike Team .....	(609) 724-0008
Gulf Strike Team .....	(251) 441-6601
Pacific Strike Team.....	(415) 883-3311
U.S. Navy Supervisor of Salvage (SUPSALV)	
SUPSALV.....	(703) 602-7527
Emergency Activation .....	(703) 607-2578

Region 7 Area Committee is the same as Region 7 Regional Response Team (RRT) except that it is chaired by Federal On-Scene Coordinator:

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## **APPENDIX D.5**

# **TRIBAL NOTIFICATION CONTACT INFORMATION**

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## 1.0 EPA REGION 7 MEMORANDUM FOR MAINTAINING RESPONSE CONTACTS FOR TRIBAL GOVERNMENTS

The following memorandum describes Region 7 protocols for maintaining emergency contact information for Tribal Governments.



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11201 Renner Boulevard  
Lenexa, Kansas 66219

OCT 28 2016

#### MEMORANDUM

**SUBJECT:** Region 7 Protocol for Maintaining Emergency Response Contacts for Tribal Governments

**FROM:** Kenneth S. Buchholz, Chief - Assessment, Emergency Response, & Removal Branch

**THRU:** Mary P. Peterson, Director - Superfund Division

**TO:** Eugene Lee, Chief - Emergency Operations and Continuity Branch, OEM, OLEM

This memorandum is in response to a memorandum dated Sept. 12, 2016, from Mathy Stanislaus titled "Identifying Emergency Response Contacts for Tribal Governments." The five items requested in that memo are provided below and detail Region 7's protocol for maintaining and updating tribal contact information.

#### 1. Region 7 tribal overview

Region 7 includes nine federally-recognized tribes that are headquartered within the four states. In addition, three tribes, which are headquartered elsewhere, own significant property within the region. Significant property refers to all properties other than individual tribal homes and includes large acreage and businesses. Emergency contacts for the additional three tribes will also be maintained by Region 7.

#### 2. Region 7 tribes and status of National Response Center application agreements

Two tribes in Region 7 have NRC application agreements:

1. Ponca Tribe of Nebraska, Niobrara, Nebraska
2. Sac & Fox Nation of Missouri in Kansas & Nebraska, Reserve, Kansas

The seven remaining tribes in R7 do not have agreements:

3. Iowa Tribe of Kansas and Nebraska, White Cloud, Kansas
4. Kickapoo Tribe in Kansas, Horton, Kansas
5. Meskwaki Nation, Sac & Fox Tribe of the MS in Iowa, Tama, Iowa
6. Omaha Tribe of Nebraska and Iowa, Macy, Nebraska
7. Prairie Band Potawatomi Nation, Mayetta, Kansas
8. Santee Sioux Nation, Niobrara, Nebraska
9. Winnebago Tribe of Nebraska, Winnebago, Nebraska

NRC application agreement status is unknown at present for the three tribes that have property in Region 7 but are headquartered elsewhere:

1. Quapaw, Miami, Oklahoma
2. Pine Ridge – Ogallala Sioux, Pine Ridge, South Dakota
3. Wyandotte, Wyandotte, Oklahoma

### **3. Contact information for tribal emergency response officials**

Attachment 1, Tribal Government Emergency Contacts for R7, contains all pertinent contact information for tribes headquartered or with property in Region 7.

### **4. Process for updates, including RRT review of regional and area contingency plans**

Region 7 Tribal Coordinators Patrick Bustos and Stanley Holder conduct a quarterly Regional Tribal Operations Committee (RTOC) meeting with participation from all nine tribes. The Region 7 tribal coordinators will review the emergency contact list (see attachment 1) at each meeting. Any changes will be provided to Superfund Tribal Coordinator Todd Davis, who will then forward the changes to Superfund removal managers and Federal On-Scene Coordinators (FOSC).

The Region 7 Regional Response Team (RRT) coordinator will annually update the Regional Integrated Contingency Plan (RICP) with the most up-to-date contact table, as will FOSCs with sub-area plans that have tribal lands. The Region 7 RRT coordinator will also maintain this contact table on the Region 7 RRT website.

At least annually, R7 tribal coordinators will review the geographic information system (GIS) layer of Indian country in the region with the RTOC. Any changes to boundaries that indicate additional tribal lands will be provided to Superfund Tribal Coordinator Todd Davis, who will forward the changes to the R7 RRT coordinator. The R7 RRT coordinator will then forward the information to the GIS contractor who will update the GIS layer for the Emergency Response (ER) Dashboard.

### **5. Downstream notifications**

Any changes in the Tribal Government Emergency Contacts for R7 table (see attachment 1) will be forwarded to a GIS contractor to update the ER Dashboard, which is utilized by all regional EPA duty officers. If an incident may impact tribal lands, the EPA duty officer will use this information to notify the affected tribe(s).

All Region 7 tribes with public water systems have approved Emergency Response Plans for their drinking water systems, copies of which are maintained by the Water, Wetlands, & Pesticides Division (WWPD). WWPD Tribal Coordinator Kim Willis-Burr maintains a contact phone list for all tribal water system operators.

This protocol will be updated as emergency response contact information changes or if there is a change in status of NRC application agreements.

If you have any questions about Region 7's protocol on maintaining emergency contacts for tribal governments, please contact me at (913)551-7473 or [buchholz.kenneth@epa.gov](mailto:buchholz.kenneth@epa.gov), or contact Eric Nold of my staff at (913)551-7488 or [nold.eric@epa.gov](mailto:nold.eric@epa.gov).

Attachment: Tribal Government Emergency Contacts for Region 7

**ATTACHMENT 1: TRIBAL GOVERNMENT EMERGENCY CONTACTS FOR  
REGION 7**

This information is restricted. Please contact the Region 7 Regional Response Team Coordinator to request this information; or call the EPA Region 7 Emergency Response 24-Hour Number (spill line) at (913) 281-0991 to make an emergency request for this information.

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## **APPENDIX E**

# **OIL SPILL RESPONSE NATIONAL POLLUTION FUNDS CENTER REQUIREMENTS**

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## Oil Spill Response NPFC Requirements NRDA Requirements

OSC Meeting  
Jan 2015  
(Revised Mar 2019)

1

## Obtain a Federal Project Number (FPN)

- Establish the Project Ceiling
- Access Ceiling and Number Assignment Processing System (CANAPS) at <https://npfc.uscg.mil/canaps/> (EPA/USCG only)
- Users must log into CANAPS using individual accounts
- Account passwords expire every 3 months

2

## Obtain a Federal Project Number (FPN)

- You will receive an e-mail to change your password or account will expire
- If you forget your password, type in your e-mail and CANAPS will e-mail you a confirmation code to change your password – it takes 5 minutes
- Follow New Project Wizard instructions to open a new project and request funds.
- Initial funding amount may be limited to \$25K due to funding constraints.

3

## Oil Spill Data Sheet

Located at H:\SUPR\SHARE\FORMS\Site-related Forms\Oil Spill Data Sheet 2.24.2011.doc

EPA Region VII Oil Spill Data Sheet	
1. Point of Contact (OSC)	
Telephone Number	
2. Federal Project Number (FPN)	
3. Spill/Site Name	
Spill Location	
4. FPN Ceiling	
Estimated EPA Salary Costs	
Estimated EPA Travel Costs	
Estimated BOA Contractor Costs	
Estimated EPA Contractor Costs	
Estimated EPA Contractor Costs	
EPA Indirect Costs (% changes annually)	
MDNR	
Other -	
Other (contingency)	
Other Federal Agency	
Other -	
5. Date FPN Opened	
NPFC Account String	
NPFC DCN	
EPA Reimbursable Account Number	

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## Make Notifications (EPA OSCs)

- Send the CANAPS e-mail to:  
– Debbie Bishop (bishop.debbie@epa.gov)
- Send Oil Spill Data Sheet to Debbie Bishop and Jacob Nicholls
- Send copy of issued PRFAs to:  
Debbie Bishop  
National Pollution Fund Center

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## NPFC CANAPS Web Site

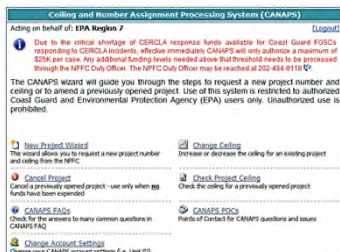


**National Pollution Funds Center**  
*Funding Today for a Cleaner Tomorrow*

Ceiling and Number Assignment Processing System (CANAPS)	
Users must now log into CANAPS using individual accounts. If you have not already created your account, click <a href="#">Create New Account</a> to get started. Coast Guard users who have logged into the Coast Guard network using your CAC can access CANAPS directly <a href="#">here</a> .	
Email Address:	<input type="text"/>
Password:	<input type="password"/>
<input type="button" value="Login"/>	
<a href="#">Forgot your password?</a>   <a href="#">Account Locked?</a>   <a href="#">Create New Account</a> <a href="#">Process Pending Account Request</a>	

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## NPFC CANAPS Web Site



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## Issue Pollution Removal Funding Authorizations

- **Non-Federal Agency PRFA**
  - For States and other non-Federal government
- **Federal Agency PRFA**
  - For Federal agencies besides EPA and USCG
- **Attach Funding Conditions and Statement of Work**
- **Forms and examples at:**
- **H:\SUPRIERS\B\FORMS\EPA use)**  
<http://www.uscg.mil/hq/npfc/prfa.htm> (state)

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## Non-Federal Agency PRFA Form

Recipient Agency: \_\_\_\_\_

Address: \_\_\_\_\_

1. **Purpose**

This document authorizes reimbursement to the Recipient Agency from the Oil Spill Liability Trust Fund or CERCLA funds for certain removal costs incurred in response to the following pollution incident: \_\_\_\_\_ Federal Project Number/CERCLA Project Number, \_\_\_\_\_. This funding authorization is expressly contingent on the Recipient's compliance with all requirements contained herein.

2. **Approved Functions and Reimbursement Limit**

Costs will be reimbursed only for actions that are directed or approved in advance by the Federal On-Scene Coordinator (FOSC). Approval may be verbal or written. Assessment, restoration, rehabilitation or replacement of natural resources damaged by the spill are not covered.

Maximum limit of authorization: \$ \_\_\_\_\_.

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## Federal Agency PRFA Form

**Federal Agency  
Pollution Removal Funding Authorization**

Recipient Agency	
Address	
Agency Locator Code (ALC)	
Agency DUNS	
Agency Tax ID	
Treasury Account Symbol (TAS)	

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## PRFA SOW

- **Should include:**
  - Name of Spill
  - FPN Number
  - Recipient Agency
  - Background Information
  - Work to be performed
  - Follow up time frame for letter report summarizing cause, extent response effort and for Final Report

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## Natural Resources Damage Assessments (NRDA)

- **A 1997 Department of Justice decision** opened the doors for more direct access to the OSLTF to help cover the costs of reclaiming our nation's natural resources following an incident .
- **NPFC established the Natural Resource Damage (NRD) Claims Division, to deal with NRD claims.**

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## Natural Resources Damage Assessments (NRDA)

- **Oil Pollution Act of 1990 (OPA) defines the term natural resources** as land, fish, wildlife, biota, air, rivers, lakes, streams, or drinking water that belongs to, is managed by, or held in trust by the United States, or any state or local government or Indian tribe.
- The term **natural resources damages (NRD)** refers to costs incurred when natural resources are injured or destroyed by an oil spill, including the cost of assessing those impacts.

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## Natural Resources Damage Assessments (NRDA)

- Those who own, manage, or hold in trust natural resources are designated as Trustees and may submit NRD claims.
- Trustees include representatives from
  - Department of Agriculture
  - Department of Commerce (National Oceanic and
- Atmospheric Administration)
  - Department of Defense
  - Department of Energy
  - Department of the Interior
  - States and Territories, Indian Tribes, and Foreign Countries

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## Natural Resources Damage Assessments (NRDA)

- Natural resource damage claims are intended to pay for the costs of:
  - Assessing the damage;
  - Restoring, rehabilitating, replacing, or acquiring the equivalent of the natural resources injured by the oil spill; and
  - Compensating for the lost use of the affected resources.
- Depending on the circumstance, claims can provide funding "up-front" or in a reimbursable manner. Costs claimed must be based on a plan that has been made available for public comment.

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## Natural Resources Damage Assessments (NRDA)

- Federal Lead Administrative Trustees (FLATs) may also access the OSLTF to initiate preassessment activities in accordance with an Interagency Agreement (IAG) between the FLAT and the NPFC. Additional guidance and forms trustees can use to document costs can be found at NRD Claims & Initiate Requests Quarterly Progress & Cost Documentation Reporting Forms.
- To initiate preassessment requests, Please contact the appropriate Claims Manager for your region. For funding requests outside of business hours, call (800) 759-7243 PIN 2073906.

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## NRDA Funding Guidance



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## NRDA Funding Guidance

- **Bottom Line:**  
EPA should not be requesting NPFC response funds for NRDA on behalf of Trustees!
- If you need technical assistance for response-related issues, issue Federal or non-Federal Agency PRFA

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### Responsible Party Enforcement

- PRP Search
- Notice of Federal Interest Letter  
H:\SUPR\ERSB\FORMS\EPA use)
- Administrative Orders
- Access Warrants

19

### Manage the Response

- Write the initial, ongoing and final POLREPS
- Contact the USCG if costs will exceed \$250K
  - A Site-Specific IAG may be required if costs will exceed \$250K
- Track and approve removal costs
- Track Progress

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### NPFC Evaluation Factors

- Is the substance involved an oil
- Was there an actual discharge or a substantial threat of a discharge
- What navigable water was or would be effected.

*If these conditions cannot be substantiated, funding is not authorized.*

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### Navigable Water Issues

- What's the name of the waterway impacted?\
- What's the latitude and longitude of the entry point?
- What navigable water may be affected?
- What is the path to the navigable water?
- What is the distance to the navigable water?
- What is the probability that any of the discharged oil will enter the navigable water?
- Under what conditions will this occur?

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### EPA's Navigable Water Definition

- Navigable waters based on 40 CFR 112.2 means the waters of the United States. The term includes:
  - All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters subject to the ebb and flow of the tide
  - All interstate waters, including interstate wetlands

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### EPA's Navigable Water Definition (continued)

- The term also includes all other waters such as intrastate lakes, rivers, streams (including intermittent streams), ....the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters:
  - that are or could be used by interstate or foreign travelers for recreational or other purposes; or
  - from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or,
  - that are or could be used for industrial purposes by industries in interstate commerce;

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## EPA's Navigable Water Definition (continued)

- All impoundments of waters otherwise defined as waters of the United States under this section;
- Tributaries of waters identified in paragraphs (1)(i) through (iv) of this definition;
- The Territorial sea; and
- Wetlands adjacent to waters identified in paragraph (1) of this definition.

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## Documentation Required by NPFC

- POLREP
- Final Report and Related Information
- Cost and Cost Documentation
  - Including Final Invoice Certified Correct by FOSC (SF 1080)
- PRFA
- Recipient Agency's State DUNS # (data universal numbering system) and Tax ID #

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# Standard Form 1080

Form Used to Request Reimbursement from the U.S. Coast Guard

[illegible]

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## More Information

- National Pollution Funds Center website:  
<http://www.uscg.mil/hq/npfc/index.htm>
- National Pollution Funds Center User Reference Guide:
  - EPA: G:\ER&R\OIL FORMS & LTRS\NPFC USER GUIDE
  - State, Others: <http://www.uscg.mil/hq/npfc/urg/index.htm>
  - Appendix B: *Funding Guidance for Oil Spills and Hazardous Material Releases*

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# **APPENDIX F**

## **REGIONAL SPILL HISTORY**

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Spill history information is available on-line at two locations:

- Enforcement and Compliance History Online (ECHO) website:

<https://echo.epa.gov/>

- National Response Center website:

<https://nrc.uscg.mil/>

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## **APPENDIX G**

# **NATIONAL OIL AND HAZARDOUS SUBSTANCES POLLUTION CONTINGENCY PLAN (NCP)**

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# **NATIONAL OIL AND HAZARDOUS SUBSTANCES POLLUTION CONTINGENCY PLAN (NCP)**

**40 CFR Part 300**

**July 1, 2015**

Current version available at: <https://www.gpo.gov/fdsys/pkg/CFR-2015-title40-vol28/xml/CFR-2015-title40-vol28-part300.xml>

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## **APPENDIX H**

# **NATIONAL RESPONSE FRAMEWORK, EMERGENCY SUPPORT FUNCTION 10**

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The National Response Framework is located at: <https://www.fema.gov/media-library/assets/documents/117791>.

Specific to this plan is the Emergency Support Function #10 – Oil and Hazardous Materials Response Annex at: [Emergency Support Function #10 – Oil and Hazardous Materials Response Annex \(fema.gov\)](#).

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## **APPENDIX I**

# **REGION 7 REGIONAL INTEGRATED CONTINGENCY PLAN RECORD OF CHANGE**

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## RECORD OF CHANGE

The most current copy of this document, including any changed pages, is available through the U.S. Environmental Protection Agency (EPA) at the [Region 7 Regional Response Team \(RRT\) website](#). All changes will occur in conjunction with the United States Coast Guard (USCG), Eighth District, Sector Upper Mississippi River, Sector Ohio Valley, and Sector Lower Mississippi River.

The following table describes revisions from 2012 through the most recent year of this plan's publication.

Change Number	Change Description	Section Found	Change Date
1	Emergency Spill Contacts for Region VII states added	Introduction, pg. iii	December 2012
2	Record of Change Table added	Introduction, pg. viii	December 2012
3	Section header added	300.4 Geographic Description and Jurisdictional Guidance	December 2012
4	Abbreviation substituted for term	300.4 Geographic Description and Jurisdictional Guidance	December 2012
5	Description of EPA Regions 4, 5, 6, 7, and 8 Regional Plans and Responsibilities added	300.4 Geographic Description and Jurisdictional Guidance	December 2012
6	Description of U.S. Coast Guard, Eighth District (USCG D8) responsibilities outlined	300.4 Geographic Description and Jurisdictional Guidance	December 2012
7	Header numeration change	300.5 Abbreviations	December 2012
8	Header numeration change	300.6 Definitions	December 2012
9	Plan Maintenance Section and defining content added	300.7 Plan Maintenance	December 2012
10	Content on planning process documentation	300.105 Incident Command System/ Unified Command System	December 2012
11	Term (Local Emergency Planning Committee) replaced by LEPC abbreviation	300.125 Notification and Communications	December 2012
12	Abbreviation of RP replaced with full term	300.135 Responsible Party Policy	December 2012
13	Affected EPA Regions listed out in content	300.140 Multi-Area Responsibilities	December 2012
14	Use of RICP and limitation of activation included	300.140 Multi-Area Responsibilities	December 2012
15	Correction to Appendix Sub-Section	300.145 Special Terms and Other Assistance Available to OSCs	December 2012

Change Number	Change Description	Section Found	Change Date
16	Definition of use and direction to included Information Collection Plan added	300.155 Public Information and Community Relations	December 2012
17	Use of volunteers and their suggested duties added	300.185 Non-governmental Participation	December 2012
18	Header to Table I changed	300.210 Federal Contingency and Response Plans	December 2012
19	Subarea Contingency Plans section added	300.215 Subarea Contingency Plans	December 2012
20	State-level Response Plans section added	300.220 state-level Response Plans	December 2012
21	Header numeration added	300.225 Fish and Wildlife Response Plan	December 2012
22	Header numeration changed	300.230 Facility Response Plans	December 2012
23	Definition of FRPs added	300.230 Facility Response Plans	December 2012
24	Location of listed FRPs within plan added	300.230 Facility Response Plans	December 2012
25	Risk Management Plan section added	300.235 Risk Management Plan	December 2012
26	Header numeration changed	300.240 Area Response Drills	December 2012
27	Header numeration changed	300.255 EPCRA Local Emergency Response Plans	December 2012
28	Definition of plan development and range of EPCRA planning added	300.255 EPCRA Local Emergency Response Plans	December 2012
29	Cultural Sites section added	300.250 Cultural Sites	December 2012
30	Responsibilities of the Spiller added	300.300 Discovery and Notification	December 2012
31	Full term for SONS added	300.323 Spills of National Significance	December 2012
32	Training and Qualifications section added	300.415 Training and Qualifications	December 2012
33	Header numeration changed	300.415 Removal Site Evaluation	December 2012
34	Header numeration changed	300.420 Removal Actions	December 2012
35	Updated Appendix B1	Regulated facilities	December 2012
36	Updated Appendix C3	EPA Response Teams and Equipment	December 2012

Change Number	Change Description	Section Found	Change Date
37	Updated list of RRT Members	Appendix D3	December 2012
38	New content in February 2012	Annex IV	December 2012
39	Changed name of Annex to NIMS/ICS	Annex III	December 2012
40	Added example habitat fact sheet	Appendix A2	December 2012
41	Replaced former memoranda of understanding (MOU) with current MOUs for EPA Region 5, 6, and 7	Annex VII	December 2012
42	Created annex to include MOU with Corporation for National and Community Services, USCG, and EPA	Annex VIII	December 2012
43	Updated contact information	Appendix A.1, Subsections 6.3 and 8.0	December 2013
44	Updated lists of federal or endangered species for all states and counties	Appendix A.4	December 2013
45	Added link to public version of the Kansas Response Plan	Subpart C, Subsection 300.220	December 2013
46	Updated KDEM first alternate to RRT	Appendix D.3, Subsection 16.2.3	December 2013
47	Revised KDHE contact number and relocated KDEM number on the pg.	Main Plan, pg. 3	December 2013
48	Updated KDHE contact number	Appendix D.4, Subsection 1.1	December 2013
49	Updated USCG alternate to RRT and USCG sector contact information	Appendix D.3, Section 3.0	December 2013
50	Updated MDC contact number	Appendix A.1, Subsection 6.3	December 2013
51	New content: MO laws governing wildlife rescue and rehabilitation	Appendix A.1, Subsection 6.3	December 2013
52	Updated IA State Emergency Response Commission (SERC) contact information	Appendix D.1	December 2013
53	Revised IDNR contact information for RRT	Appendix D.3, Subsection 16.1	December 2013
54	Updated list of response contractors	Appendix C.2	December 2013
55	Corrected Radiological Emergency Response Team (RERT) name	Appendix C.3	December 2013
56	Inserted links to 2013 versions of the NRF and Emergency Support Function (ESF)-10; and replaced old versions with new	Appendix H	December 2013
57	Formatted table and added table notes	See Table A.1.1	December 2013
58	Replaced NPFC presentation with updated NPFC/NRDA requirements for spill response	Appendix E	December 2013
59	Updated Iowa HSEMD representative to RRT	Appendix D.3, Subsection 16.1	December 2013

Change Number	Change Description	Section Found	Change Date
60	Updated NPFC contact numbers	Appendix D.4, Subsection 1.2	December 2013
61	Revised Record of Change Table to include “Change Date” column and added dates	Main plan, Preface	December 2013
62	Added reference to OSCs listed in Appendix D.3	Main plan, Section 300.120	December 2013
63	Removed plan revision date in all pg. footers (retained on cover pg. only)	All sections	December 2013
64	Updated FRP site list with 2013 database	Appendix B.1	December 2013
65	Updated USCG 24-hour spill number	Preface	December 2013
66	Added new letter of promulgation (original letter remains)	Preface	December 2013
67	Added Clean Water Act (CWA) delegation notice	Preface	December 2013
68	Added Record of Change to TOC	Preface/TOC	December 2013
69	Replaced Janice Kroone with Eric Nold as RRT Coordinator and RICP point of contact	Correction and Update Form, main text Section 300.7, Appendix D.3, and Appendix D.4	May 2015
70	Added EPA spill number as an emergency means of requesting restricted information; and replaced Janice Kroone with “RRT Coordinator” as the non-emergency point of contact for restricted information	Appendix A.3.a, Appendix A.3.b, and Appendix B.2	May 2015
71	Updated T&E species and sensitive areas geospatial information guide for each state; and added contact information for sources of GIS data	Appendix A.7	May 2015
72	Added up-to-date RICP promulgation letter	Main plan	May 2015
73	Updated MO SERC contact information	Appendix D.1	May 2015
74	Updated RRT Members contact information, including information for new EPA OSCs	Appendix D.3 and D.4	May 2015
75	Updated NPFC requirements	Appendix E	May 2015
76	Updated FRP and RMP tables using 2014 databases; and added reference to Region 7 flex viewer with web link to request access	Appendix B.1	May 2015
77	Updated list of Missouri’s conservation areas with data provided by MDC and MDNR	Appendix A.2	May 2015
78	Updated federally-listed endangered and threatened species with data provided by DOI	Appendix A.4	May 2015
79	Added disclaimer that plan-listed sensitive environments should not be considered comprehensive or definitive	Appendix A.1, Subsection 2.0; Appendix A.2, Subsection 1.0 Appendix A.4, all subsections (pg. footer)	May 2015



Change Number	Change Description	Section Found	Change Date
80	Reformatted bulleted list of natural resource trustees	Appendix A.1, Subsection 4.2	May 2015
81	Added USDA/APHIS as source of technical expertise and assistance	Appendix A.1, Subsection 6.1	May 2015
82	Added USDA/APHIS office locations	Appendix A.1, Subsection 6.3	May 2015
83	Changed “Department” to “Office” concerning USFWS’s Office of Law Enforcement (OLE)	Appendix A.1, Subsection 6.5	May 2015
84	Added APHIS and OLE to the list of federal abbreviations	Main plan, Section 300.005	May 2015
85	Updated NRC’s web address	Appendix F	May 2015
86	Updated oil spill removal organizations (OSRO) contacts list using current USCG RRI to include COTP Zones Lincoln (NE), Lower Mississippi, Ohio Valley, and Upper Mississippi	Appendix C.1	May 2015
87	Added list of MTRs and 24-hour contact phone numbers for facilities on Mississippi River along Region 7 states	Appendix B.1	May 2015
88	Added MOU between Regions 4 and 7	Annex VII	May 2015
89	Renamed Annex VII to clearly indicate separate MOUs are in place between Region 7 and other regions	Annex VII	May 2015
90	Added USCG, EPA, USDA APHIS-WS MOU	Annex IX	May 2015
91	Updated links to each state’s LEPC list	Appendix D.2	May 2015
92	Updated Iowa’s emergency response 24-hour phone number (IDNR spill line)	Main Plan, Appendix D.3, and Appendix D.4	July 2015
93	Updated FRP tables using 2015 database	Appendix B.1	August 2015
94	Updated USCG contact information	Appendix D.3	August 2015
95	Editorial (capitalization) and punctuation corrections	Main Plan, Subpart B, Subsection 300.115	August 2015
96	Revised cover by removing EPA references and adding RRT member agency logos	Cover	September 2015
97	Moved USCG under DHS in list of agencies	Main Plan, Subpart A, Subsection 300.5 (Abbreviations)	September 2015
98	Generalized the department in which the USCG operates for the coastal zone	Main Plan, Subpart B, Subsection 300.100	September 2015
99	Corrected citation describing the reporting frequency to the NRT by the RRT	Main Plan, Subpart B, Subsection 300.115	September 2015
100	Replaced OSC with OSC/FOSC	Main Plan, Subpart B, Subsection 300.120	September 2015
101	Added “Department of Homeland Security” in front of USCG and FEMA	Main Plan, Subpart B, Subsection 300.175	September 2015
102	Added “(API)” after American Petroleum Institute	Main Plan, Subpart B, Subsection 300.185	September 2015
103	Corrected use of MSU (marine safety unit) and removed citation of the number of FRPs	Main Plan, Subpart B, Subsection 300.230	September 2015

Change Number	Change Description	Section Found	Change Date
104	Updated USCG contact information	Appendix D.3	September 2015
105	Updated Gulf Strike Team phone number	Appendix D.4	September 2015
106	Reorganized columns in FRP table	Appendix B.1	September 2015
107	Updated USCG, DOE, FEMA, and NOAA contact information	Appendix D.3	November 2015
108	Replaced various incorrect references to the Regional Emergency Operations Center	Main Plan, all subsections	March 2017
109	Added reference to Appendix D.5, Tribal Emergency Contacts List	Main Plan, Preface, To Report a Spill or Release	March 2017
110	Replaced EPA previous web address for posted plans with <a href="http://www.epaosc.org/R7RRT">www.epaosc.org/R7RRT</a>	Main Plan, Preface and Subsection 300.215	March 2017
111	Revised lists of abbreviations	Main Plan, Subsection 300.5	March 2017
112	Additional language describing responsibilities to notify State/Federal Natural Resources Trustees and tribes of spills/discharges	Main Plan, Subsection 300.125, pg. 13, paragraphs 2 and 3.	March 2017
113	Added reference to EPA/USCG MOA in Annex I	Main Plan, Subsection 300.125, pg. 13, paragraph 4	March 2017
114	Additional language describing FOSC coordination activities	Main Plan, Subsection 300.125, pg. 13, paragraph 5	March 2017
115	Added “As stated in Section 300.125,”	Main Plan, Subsection 300.135, pg. 15, paragraph 3	March 2017
116	Added language describing inter-regional coordination and related notifications	Main Plan, Subsection 300.135, pg. 16, paragraph 4	March 2017
117	Added first paragraph under “Responsible Party Policy” describing notifications to NRC	Main Plan, Subsection 300.135, pg. 18	March 2017
118	Additional language describing multi-area responses	Main Plan, Subsection 300.140, pg. 20, last two paragraphs	March 2017
119	Added “Contingency” to plan names and updated website address for plan posting location	Main Plan, Subsection 300.215, pg. 35	March 2017
120	Updated links to state-level response plans	Main Plan, Subsection 300.220, pg. 35	March 2017
121	Added language indicating notification to tribes and drinking water intakes will also be ensured; and referenced Appendix D.5 (Tribal contacts).	Main Plan, Subsection 300.300. pg. 29	March 2017
122	Added “Tribal Governments” to notification responsibilities of OSCs	Main Plan, Subpart G, pg. 50, first bullet	March 2017
123	Updated tables of federally-listed endangered and threatened species	Appendix A.4	March 2017
124	Updated web address of R7 Atlas (Flex Viewer)	Appendix A.7, pg. 3	March 2017

Change Number	Change Description	Section Found	Change Date
125	Updated tables of FRP sites and RMP sites; and removed table of marine transport-related sites	Appendix B.1	March 2017
126	Updated Missouri SERC contact information	Appendix D.1	March 2017
127	Updated RRT member contact list	Appendix D.3	March 2017
128	Added new appendix of tribal emergency contacts and EPA notification protocols	Appendix D.5	March 2017
129	Added links to current version of National Response Framework (NRF), 2016 NRF, and ESF-10 Annex to the 2016 NRF.	Appendix H	March 2017
130	Added 2016 EPA/USCG MOA describing predesignation of FOSCs	Annex I	March 2017
131	Removed references to “COSTAs” and replaced term with chemical and bioremediation countermeasures (CBC); added links to current National Oil and Hazardous Substances Pollution Contingency Plan (NCP) Product Schedule and related reference sources; reorganized the CBC decision process; and removed Appendix IV.G (COSTA Fact Sheets)	Appendix IV, Section 3.0 and Appendix IV.G	March 2017
132	Added MOU with new addendum containing updated contact information for the Corporation for National & Community Service (Note: actual MOU is unchanged)	Annex VIII	March 2017
133	Corrected reference to CWA 33 U.S.C. 1321(d)	Main Plan, Subsection 300.2, pg. 1	March 2017
134	Replaced “8th Coast Guard District” with U.S. Coast Guard, Eighth District (USCG D8)	Main Plan, numerous subsections; and Annex I	March 2017
135	Replaced “MOU” with “MOA” in reference to EPA/USCG agreement for providing FOSCs	Main Plan, several subsections	March 2017
136	Added “discharge” where “release” is also used to describe oil releases/discharges	Main Plan, several subsections	March 2017
137	Removed the term “Marine Safety Office”; moved USFWS under DOI; removed “Unified Command System” and added “Unified Command”; added FRP; removed “CO” (Coordinating Officer) from main text; added “CBC”, and added Incident Management Assistance Team (IMAT)	Main Plan, Subsection 300.5 (abbreviations) and throughout text	March 2017
138	Re-formatted list of agencies/organizations	Main Plan, Subsection 300.175	March 2017
139	Revised language to indicate USCG “will” response per EPA/USCG MOA	Main Plan, Subsection 300.135	March 2017
140	Added two paragraphs describing USCG IMAT and Public Information Assistance Team (PIAT)	Main Plan, Subsection 300.145	March 2017
141	Replaced all instances of “worst case” with “worst-case”	Main Plan, several subsections	March 2017
142	Replaced all instances of “Subarea” with “Subarea”	Main Plan, several subsections	March 2017
143	Corrected TOC reference to OSRO to use “Removal” in the term	Main Plan, TOC (Appendix C.1 already corrected)	March 2017

Change Number	Change Description	Section Found	Change Date
144	Clarified USCG's process for review and approval of FRPs and Vessel Response Plans (VRP)	Main Plan, Subsection 300.230	March 2017
145	Added statements concerning CWA 404 permit requirements under Nationwide Permit 20	Main Plan, Subsection 300.310	March 2017
146	Added references to Annex IV (CBCs)	Main Plan, Subsection 300.320	March 2017
147	Updated link to Ceiling and Number Assignment Processing System (CANAPS)	Main Plan, Subsection 300.335	March 2017
148	Added "available" to read, "...to include the most up-to-date emergency contacts list available for Tribal Governments."	Main Plan, Subsection 300.610	March 2017
149	Removed "promote" and inserted "does not allow"; and added reference to Annex IV to identify exceptions to RRT's CBC policy	Main Plan, Subpart J, paragraph 3	March 2017
150	Added references to Annex IV and links to the NCP Product Schedule and Technical Notebook	Main Plan, Subpart J	March 2017
151	Corrected reference to EPA OSC Contacts List	Main Plan, Subsection 300.120	March 2017
152	Replaced references to "Unified Command System" with "Unified Command" and "Unified Command structure"; and revised Figure III-2 to include the RP	Main Plan, Subsection 300.105 and Annex III, all subsections	March 2017
153	Replace "does not promote" with "does not allow" concerning the use of CBCs.	Annex IV, Subsection 3.1	March 2017
154	Replaced "8th Coast Guard District" with U.S. Coast Guard, Eighth District	Annex I, Title Page	March 2017
155	Replaced EPA previous web address for posted plans with response.epa.gov/R7RRT	Main Plan, Preface and Subsection 300.215	April 2017
156	Replaced "Federal OSC" and "OSC" (where appropriate) with "FOSC"	All sections, appendices, and annexes	April 2017
157	Updated abbreviation lists to include only terms used in the RICP's Main Plan	Section 300.5	April 2017
158	Capitalized all instances of "Federal", "State", and "Tribe/Tribal"	All sections, appendices, and annexes	May 2017
159	Added new image of Federal agency logos based on NRT website logos	Cover	May 2017
160	Revised format of citations for Federal laws	Main Plan, all sections	May 2017
161	Update Tribal Emergency Contacts using EPA list dated 4/20/17	Appendix D.5	May 2017
162	Numbered tables describing historical worst-case discharges and updated data	Main Plan, Subsection 300.210	May 2017
163	Added USCG Sector phone numbers to emergency phone list	Preface	May 2017
164	Changed RICP revision date to January 31st	Preface and Section 300.7	May 2017
165	Corrected name of ESF #10 to "Oil and Hazardous Materials Response"	Section 300.1	May 2017
166	Removed "Standard Federal" from reference to Region 7	Section 300.2	May 2017

Change Number	Change Description	Section Found	Change Date
167	Removed reference to “exclusive economic zone”	Section 300.3, first bullet	May 2017
168	Combined Sections 300.3 ( <i>Geographic Description and Jurisdictional Guidance</i> ) and 300.4 ( <i>Scope</i> ) to better align RICP section numbering with NCP sections; and updated TOC	Sections 300.3 and 300.4	May 2017
169	Moved <i>Plan Integration</i> to Section 300.2; replaced “...expand requirements set forth in the NCP...” with “...further detail requirements set forth in the NCP...” and changed “All Federal contingency plans are to be coordinated...” to “All Federal contingency plans should be coordinated...”	Sections 300.4/300.2	May 2017
170	Revised language to indicate the intended schedule and scope of plan revisions and added sentence indicating RRT Co-Chairs will approve and sign-off on major plan updates occurring every five years.	Section 300.7, third paragraph	May 2017
171	Hyper-linked Executive Order text; substituted “subarea” for “Area”; and added figure showing EPA FOSC subarea assignments	Section 300.100	May 2017
172	Added “Tribes” to list of coordinating entities Section 300.105	Section 300.105, first paragraph	May 2017
173	Added “Tribes” to entities listed to encourage improved preparedness	Section 300.115, eighth bullet	May 2017
174	Added sentence indicating there are seven designated subareas with assigned EPA FOSCs	Section 300.115, following bulleted list	May 2017
175	Revised “Request...” to “Verbal request...”	Section 300.115, <i>Incident-Specific RRT</i>	May 2017
176	Added “Tribal” to listed cooperating entities	Section 300.120	May 2017
177	Added “Command Center” as an emergency operations location	Section 300.125, fourth paragraph	May 2017
178	Replaced “Principal Federal Official” with “Federal Coordinating Officer”	Several sections	May 2017
179	Deleted sentence, “The REOC will be at the appropriate USCG district office when....”	Section 300.135, second paragraph	May 2017
180	Revised responding USCG entity to be COPTs	Section 300.135, fourth paragraph	May 2017
181	Added “...consistent with NCP Parts 300.120 and 300.125...”	Section 300.135, fifth paragraph	May 2017
182	Changed “private response agencies” to “private response entities”	Section 300.135, seventh paragraph	May 2017
183	Added USCG D8 to regions/districts to be notified	Section 300.135, eighth paragraph	May 2017
184	Changed “health and safety problems” to “health and safety issues”	Section 300.135, eleventh paragraph	May 2017
185	Specified “FOSC/SOSC” will contact natural resource trustees	Section 300.135, twelfth paragraph	May 2017
186	Added Tribal Historic Preservation Office (THPO) as entity to be consulted by FOSC	Section 300.135, fifteenth paragraph	May 2017

Change Number	Change Description	Section Found	Change Date
187	Spelled out Emergency Response Division (EPA) and removed “ERD” from abbreviation list	Subpart J, <i>NCP Product Schedule</i>	May 2017
188	Added “Relationship of Plans” graphic	Section 300.210	May 2017
189	Updated TOC	TOC	May 2017
190	Removed references to Emergency Response Notification System (ERNS) and added link to EPA’s Enforcement and Compliance History Online (ECHO) database	Main Plan and Appendix F	May 2017
191	Replaced link to NCP with link to 2015 version	Appendix G	May 2017
192	Replace “Wildlife and Parks Department” with “Kansas Department of Wildlife Parks and Tourism”	Appendix A1, page 5	May 2017
193	Replace “water fowl” with “waterfowl”	Appendix A1, page 5	May 2017
194	Added phone number for USFWS Law Enforcement Division (Kansas)	Appendix A1, page 18	May 2017
195	Added neosho madtom, rabbitsfoot mussel, and neosho mucket mussel critical habitats to several Kansas counties	Appendix A2, Table A.2.3	May 2017
196	Revised “Natural Resources Commission” to “Department of Natural Resources” and removed Department of Water Resources under Nebraska	Appendix A1, page 5	May 2017
197	Corrected name of Bald and Golden Eagle Protection Act of 1940	Appendix A1, page 16	May 2017
198	Corrected office addresses under Nebraska	Appendix A1, page 18	May 2017
199	Spelled out “Nebraska” in address	Appendix A1, page 18	May 2017
200	Updated link to USFWS Best Practices for Migratory Bird Care During Oil Spill Response	Appendix A1, page 20	May 2017
201	Changed Material Safety Data Sheet to Safety Data Sheet	Appendix A1, page 22	May 2017
202	Corrected address for NDEE Director	Appendix A1, page 28	May 2017
203	Removed listings of piping plover critical habitats in Nebraska	Appendix A2, Table A.2.5	May 2017
204	Revised county locations of USFW wildlife refuges	Appendix A2, Table A.2.5	May 2017
205	Added critical habitats in Nebraska for salt creek tiger beetle	Appendix A2, Table A.2.5	May 2017
206	Added wildlife management area to several Nebraska counties	Appendix A2, Table A.2.5	May 2017
207	Corrected location of several Nebraska RMP facilities	Appendix B1	May 2017
208	Updated State and Federal Natural Resource Trustee contacts	Appendix A1	December 2017
209	Updated state/county lists of T&E species	Appendix A4	December 2017
210	Updated EPA’s GIS contact for Sensitivity Atlas access	Appendix A7	December 2017
211	Updated FRP and RMP lists of regulated facilities	Appendix B1	December 2017



Change Number	Change Description	Section Found	Change Date
212	Updated OSRO contact information and changed “Response” to “Removal” in reference to OSROs	Appendix C1	December 2017
213	Updated SERC and LEPC information	Appendices D1 and D2	December 2017
214	Updated RRT representative contacts list	Appendix D3	December 2017
215	Updated Tribal emergency contacts list	Appendix D5	December 2017
216	Updated MTR list of regulated facilities	Appendix B1	January 2018
217	Moved comprehensive Record of Change to new Appendix I and retained current year’s changes in Preface	Appendix I and Preface	March 2018
218	Revised for consistency throughout and to clarify there are no preapprovals for chemical countermeasures, except where roadway safety is a concern	Main Plan, Section 300.310 and Subpart J; and Annex IV	January 2019
219	Updated State Natural Resource Trustee contacts	Appendix A1	January 2019
220	Updated state/county lists of T&E species	Appendix A4	January 2019
221	Updated GIS and mapping resource contacts; and revised information on EPA’s public map viewer	Appendix A7	January 2019
222	Updated FRP and RMP lists of regulated facilities	Appendix B1	January 2019
223	Updated SERC and LEPC information	Appendices D1 and D2	January 2019
224	Updated Tribal emergency contacts list	Appendix D5	January 2019
225	Updated MTR list of regulated facilities	Appendix B1	March 2019
226	Updated OSRO contact information	Appendix C1	March 2019
227	Updated RRT representative contacts list	Appendix D3	March 2019
228	Updated EPA contacts for NPFC Spill Response process	Appendix E	March 2019
229	Updated Radiological Emergency Response Team contacts	Appendix C3	March 2019
230	Added reference to Appendix A6 that describes permit requirements and, roles and responsibilities of federal agencies under Section 404 of CWA	Main Plan, Section 300.310	March 2019
231	Reformatted cover and added agency acronyms under logos	Cover	January 2020
232	Reformatted body text to 12-point font and added two spaces after periods; and revised “Federal”, “State”, and “Tribe/Tribal” to lower case except when a specific entity is named/referenced	All sections, appendices, and annexes	January 2020
233	Changed name of Nebraska Department of Environmental Quality to Nebraska Department of Environment and Energy (NDEE); and revised emergency phone numbers	To Report a Spill, Main Plan, Appendix A.1, and Appendix D.3	January 2020
234	Added hyper-linked text for select appendices, annexes, and supporting reference materials	Main Plan	January 2020

Change Number	Change Description	Section Found	Change Date
235	Reviewed regulatory citations and corrected inaccurate references	Main Plan	January 2020
236	Added October 2019 letter designating the Area Committee On-Scene Coordinator	Page iii	January 2020
237	Added July 2019 Addendum to letter designating the Area Committee On-Scene Coordinator	Page iv	January 2020
238	Added Current Letter of Promulgation	Page v	January 2020
239	Added Original Letter of Promulgation (signed)	Page ix	January 2020
240	Revised language describing revision and update process	Page xi	January 2020
241	Listed U.S. Coast Guard (USCG) Sectors with jurisdiction in Region 7 as planning authorities	Page xv, Record of Change (current)	January 2020
242	Changed “sub-area” to “subarea”; and capitalized “part,” “subpart,” and “section” for consistency across Region 7 plans	Main Plan	January 2020
243	Revised description of plan integration	Page 2, Plan Integration	January 2020
244	Added reference/link to Annex I, memorandum of agreement (MOA) between EPA Region 7 and USCG Eighth District	Page 3, last paragraph	January 2020
245	Revised language describing EPA and USCG roles related to Emergency Support Function #10 and designation of primary agency	Section 300.3	January 2020
246	Revised lists of acronyms and abbreviations	Section 300.4	January 2020
247	Revised Figure 1 showing Region 7 boundaries, subareas, EPA’s assignment of Federal On-Scene Coordinators (FOSC)	Subpart B, Section 300.100	January 2020
248	Revised language to clarify that National Incident Management System (NIMS) is used in Region 7; and removed references to Incident Action Plan (IAP) development	Section 300.105	January 2020
249	Amended list of RRT responsibilities to include training/exercise participation and certain support activities for LEPCs; and clarified process for Incident-Specific RRT (ISRRT) activation	Section 300.115	January 2020
250	Clarified responsibilities of EPA FOSCs and EPA as lead agency; and clarified that the NCP planning requirements are met by the Region 7 Integrated Contingency Plan (RICP)	Section 300.120, second paragraph	January 2020
251	Removed references to “Principal Federal Official” (PFO)	Section 300.130, third paragraph	January 2020
252	Where appropriate, replaced “incidents” and “spills” with “discharges/releases” for consistency with NCP	Main Plan	January 2020
253	Clarified situations when the Federal Emergency Management Agency (FEMA) will be notified of hazardous materials (HAZMAT) incidents	Section 300.135, FOSC-Specific Responsibilities, paragraph 6	January 2020



Change Number	Change Description	Section Found	Change Date
254	Revised facility descriptions; and removed reference to the Federal Radiological Emergency Response Plan (FRERP)	Section 300.135	January 2020
255	Moved list of responsible party (RP) responsibilities to Subpart H	Section 300.135	January 2020
256	Replaced National Decontamination Team with Consequence Management Advisory Division (CMAD) and removed Radiological Assistance Teams (RAT)	Section 300.145	January 2020
257	Updated agency list and corrected name of Office of Surface Mining Reclamation and Enforcement	Section 300.175	January 2020
258	Corrected agency leads for State Radiation Programs	Section 300.180	January 2020
259	Corrected organization names and related contact information	Section 300.185	January 2020
260	Revised “Area” description of EPA Region 7	Section 300.200	January 2020
261	Removed references to Bureau of Safety and Environmental Enforcement (BSEE) regarding off-shore facilities	Section 300.210	January 2020
262	Updated list of Region 7 oil spills in Table I using National Response Center (NRC) data; and added table of potential worst-case (land source) spills in Region 7 (Table II)	Section 300.210	January 2020
263	Added reference to Region 7 CBC Factsheet and link to document	Section 300.310	January 2020
264	Clarified regulatory responsibilities for review/approval of Facility Response Plans (FRP)	Section 300.230	January 2020
265	Replaced USCG Eighth District contact information with Captain of the Port (COTP) office contact information	Section 300.300	January 2020
266	Added link to NCP section that describes operational priorities concerning oil removal	Section 300.317	January 2020
267	Added actions to be taken by the FOSC for minor and medium discharges; and revised “additional actions” to be taken	Section 300.320	January 2020
268	Added description for assessing “substantial threat” and link to factors to be considered with actions to be taken	Section 300.322	January 2020
269	Revised section to indicate that the USCG Commandant can classify a discharge as a spill of national significance (SONS)	Section 300.323	January 2020
270	Revised to include circumstances for “federal discharge removal actions”; and revised information related to the Ceiling and Number Assignment Processing System (CANAPS)	Section 300.335	January 2020
271	Renumbered sections in Subpart E to mirror NCP; revised heading numbers; and moved “Training and Qualifications” to end	Sections 300.410 and 300.415	January 2020

Change Number	Change Description	Section Found	Change Date
272	Added description of cooperative agreements for response under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and link to relevant NCP section	Section 300.515	January 2020
273	Added language stipulating EPA/USCG shall consult with the affected state on all removal actions	Section 300.520	January 2020
274	Revised definition of “natural resources” for consistency with CERCLA and the Oil Pollution Act of 1990 (OPA)	Section 300.600	January 2020
275	Added description of state trustee responsibilities under OPA	Section 300.605	January 2020
276	Revised description of tribal trustees for consistency with OPA	Section 300.610	January 2020
277	Updated National Pollution Funds Center (NPFC) contact information	Section 300.700	January 2020
278	Revised description of landowners who warrant special consideration during a response; and removed “tank” from “tank vessel” to be inclusive of non-tank vessels $\geq 400$ gross tons that carry oil of any kind for fuel	Section 300.700	January 2020
279	Replaced link to NCP Product Schedule Technical Notebook	Subpart J and Annex IV	January 2020
280	Updated federally-listed species (threatened, endangered, candidate, and species of concern)	Appendix A.4	January 2020
281	Updated lists of regulated facilities	Appendix B.1	January 2020
282	Updated list of USCG-classified OSROs and contact information	Appendix C.1	January 2020
283	Updated list of “Other Response Contractors” based in Region 7	Appendix C.2	January 2020
284	Updated EPA equipment list and EPA teams	Appendix C.3	January 2020
285	Updated list of Region 7 SERC	Appendix D.1	January 2020
286	Updated list of sources for Region 7 LEPCs	Appendix D.2	January 2020
287	Updated RRT members list	Appendix D.3	January 2020
288	Updated contact information for Region 7 Area Committee member organizations	Appendix D.4	January 2020
289	Updated Region 7 “Tribal Notification Contact Information”	Appendix D.5	January 2020
290	Replaced National Response Framework (NRF) and Emergency Support Function (ESF)-10 with links to these documents	Appendix H	January 2020
291	Updated “Record of Change” (complete)	Appendix I	January 2020
292	Replaced Nuclear/Radiological Incident Annex (NRIA) with a brief NRIA description and link to the complete document	Annex II	January 2020
293	Replaced link to National Response Team’s (NRT) “Guidance on Burning Spilled Oil In Situ”; and	Annex IV	January 2020

Change Number	Change Description	Section Found	Change Date
	updated locations and contact information of USCG District Eight Scientific Support Coordinators (SSC)		
294	Replaced NRT's guidance on use of volunteers with link to the document	Annex VIII.B	January 2020
295	Updated hyperlinks to supporting reference materials	Main Plan, appendices, and annexes	January 2021
296	Updated Record of Change (current); and revised lists of acronyms and abbreviations, including addition of Cybersecurity and Infrastructure Security Agency (CISA)	Page x and Section 300.4	January 2021
297	Added new subsection with statement acknowledging need for pandemic planning to support spill response operations; and added link to pandemic planning resources	Section 300.255	January 2021
298	Updated federally-listed species (threatened, endangered, candidate, and species of concern)	Appendix A.4	January 2021
299	Updated lists of regulated facilities	Appendix B.1	January 2021
300	Updated list of USCG-classified OSROs and contact information	Appendix C.1	January 2021
301	Updated EPA equipment list and EPA teams	Appendix C.3	January 2021
302	Updated list of Region 7 SERCs	Appendix D.1	January 2021
303	Updated list of sources for Region 7 LEPCs	Appendix D.2	January 2021
304	Updated RRT members list	Appendix D.3	January 2021
305	Updated contact information for Region 7 Area Committee member organizations	Appendix D.4	January 2021
306	Removed table of tribal emergency notification contact information and added statement to contact EPA for restricted information	Appendix D.5	January 2021
307	Updated Record of Change (complete)	Appendix I	January 2021
308	Replaced links to NCP Product Schedule and NCP Product Schedule Technical Notebook; added link to EPA Region 5 Habitat Fact Sheets; updated list of in-situ burn (ISB) reference sources; and updated table of EPA Region 7 air monitoring equipment for ISB	Annex IV	January 2021
309	Updated hyperlinks to supporting reference materials	Main Plan, appendices, and annexes	January 2022
310	Updated U.S. Coast Guard 24-hour emergency phone numbers; revised abbreviation of U.S. Bureau of Reclamation; and replaced hyphenated occurrences of "worst-case"	Main Plan	January 2022
311	Clarified that this Plan is posted annually to the Region 7 Regional Response Team (RRT) website	Preface, Distribution	January 2022
312	Updated Figure 1, <i>EPA FOOSC Subarea Assignments</i>	Main Plan, Subsection 300.100	January 2022
313	Added subsection, <i>EPA Responses to Mississippi River</i> , describing EPA response boundaries	Main Plan, Subsection 300.140	January 2022

Change Number	Change Description	Section Found	Change Date
314	Updated federally-listed species (threatened, endangered, candidate, and species of concern)	Appendix A.4	January 2022
315	Updated metropolitan area populations based on 2020 U.S. Census data and updated population change graphs	Appendix A.5	January 2022
316	Updated lists of regulated facilities	Appendix B.1	January 2022
317	Updated list of USCG-classified OSROs and contact information	Appendix C.1	January 2022
318	Added description of EPA regions' jurisdictional boundaries along the Mississippi River	Main Plan, Subsection 300.140	January 2022
319	Updated RRT members list	Appendix D.3	January 2022
320	Updated contact information for Region 7 Area Committee member organizations	Appendix D.4	January 2022
321	Replaced hyperlink to National Response Framework (NRF) and Emergency Support Function #10 – Oil and Hazardous Materials Response Annex	Appendix H	January 2022
322	Updated Record of Change (complete)	Appendix I	January 2022
323	Replaced hyperlink to the Nuclear/Radiological Incident Annex (NRIA) to the NRF	Annex II	January 2022
324	Replaced links to Product Schedule Technical Notebook and EPA Region 5 Habitat Fact Sheets; and updated list of in-situ burn (ISB) reference sources	Annex IV	January 2022
325	Updated hyperlinks to supporting reference materials	Main Plan, appendices, and annexes	January 2023
326	Added link to the web map application, <i>EPA Region 7 Response and Planning Viewer (Public Version)</i>	Sections 300.230 and 300.235, and Appendix A.2	January 2023
327	Updated Figure 1, <i>EPA FOOSC Subarea Assignments</i>	Main Plan, Subsection 300.100	January 2023
328	Updated list of federal and state trustee contacts	Appendix A.1	January 2023
329	Changed “Kansas Department of Wildlife, Parks, and Tourism” to “Kansas Department of Wildlife and Parks”	Appendix A.1 and Appendix A.7	January 2023
330	Updated and reorganized lists of GIS and mapping data sources	Appendix A.2	January 2023
331	Updated federally-listed species (threatened, endangered, candidate, and species of concern)	Appendix A.4	January 2023
332	Updated lists of regulated facilities; added state and federal radiation program contacts; added local emergency management contacts, and added links to radiological incident preparedness plans	Appendix B.1-B.5	January 2023
333	Updated list of USCG-classified OSROs and contact information	Appendix C.1	January 2023
334	Updated lists of local spill removal contractors	Appendix C.2	January 2023
335	Updated EPA response team phone numbers	Appendix C.3	January 2023

Change Number	Change Description	Section Found	Change Date
336	Updated SERC contacts	Appendix D.1	January 2023
337	Updated RRT contacts	Appendix D.3	January 2023
338	Updated contact information for Region 7 Area Committee member organizations	Appendix D.4	January 2023
339	Updated Record of Change (complete)	Appendix I	January 2023
340	Changed “may” to “may/shall” regarding actions to be taken by the FOSC.	Main Plan, Section 300.322	January 2023
341	Updated hyperlinks to supporting reference materials	Main Plan, appendices, and annexes	January 2024
342	Added brief description of changes under the 2023 NCP Subpart J final rule	Main Plan, Subpart J	January 2024
343	Updated table of oil spills in Region 7 since 2010	Main Plan, Subpart C, Table I	January 2024
344	Added description of activation/hiring Historic Properties Specialists (HPS) and “informed emergency response decisions” regarding potential impacts to historic properties and cultural resources; and updated list of federal and state trustee contacts	Appendix A.1, Sections 7.1, 7.2 and 7.3	January 2024
345	Updated federally-listed species (threatened, endangered, candidate, and species of concern)	Appendix A.4	January 2024
346	Updated lists of regulated facilities	Appendix B.1-B.5	January 2024
347	Updated list of USCG-classified OSROs and contact information	Appendix C.1	January 2024
348	Updated lists of local spill removal contractors	Appendix C.2	January 2024
349	Updated EPA response team phone numbers	Appendix C.3	January 2024
350	Updated SERC contacts	Appendix D.1	January 2024
351	Updated LEPC contacts	Appendix D.2	January 2024
352	Updated RRT-7 contacts	Appendix D.3	January 2024
353	Updated Record of Change (complete)	Appendix I	January 2024
354	Clarified considerations for contacting State and Federal Natural Resource Trustees before in-situ burn operations	Annex IV, Section 2.3.3., last bullet	January 2024

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## **ANNEX I**

# **MEMORANDUM OF AGREEMENT BETWEEN U. S. ENVIRONMENTAL PROTECTION AGENCY, REGION 7, AND U. S. COAST GUARD, EIGHTH DISTRICT**

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**MEMORANDUM OF AGREEMENT  
BETWEEN  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 7  
AND  
UNITED STATES COAST GUARD  
REGARDING RESPONSE BOUNDARIES FOR  
OIL AND HAZARDOUS SUBSTANCES POLLUTION INCIDENTS AND  
FEDERAL ON-SCENE COORDINATOR RESPONSIBILITIES**

**Section 1: PARTIES**

The Parties to this Memorandum of Agreement (MOA) are the United States Environmental Protection Agency (EPA), Region 7 and the United States Coast Guard, Eighth District ("USCG D8").

**Section 2: PURPOSE AND AUTHORITIES**

- A. The intent of this MOA is to delineate the Region 7 inland zone geographical boundaries establishing responsibility for the predesignation of Federal On-Scene Coordinators (FOSCs) for pollution response, pursuant to the Federal Water Pollution Control Act, as amended, also known as the Clean Water Act (CWA), 33 U.S.C. §§ 1251 – 1387; and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. § 300.120.
- B. This agreement is established under the provisions of 33 U.S.C. §§ 1251 – 1387, 14 U.S.C. § 93(a)(20), 14 U.S.C. § 141, 40 C.F.R. § 300.120, and EPA Delegation R7-1-011.

**Section 3: DEFINITION**

Except where otherwise specifically defined in the context of its use herein, or where specifically set forth below, terms used in this MOA shall have the meaning set forth in federal law. The definition supplied below is meant to enhance and supplement the understanding of those terms, as used in federal law, and is not meant to usurp or alter their meaning under federal law.

- **Commercial Vessels.** “Commercial vessels” are vessels in commercial service that conduct any type of trade or business involving the transportation of goods or individuals, except combatant vessels. This definition includes tank vessels (ships and barges); freight vessels and inspected and uninspected barges; commercial fishing vessels; inspected passenger vessels; and uninspected towing vessels. This definition excludes recreational vessels, permanently moored structures, and cranes, generators, and temporary storage devices not an integral part of an uninspected barge, which, while they may appear to be vessels or part of the vessel are not inspected by the Coast Guard, e.g., an uninspected deck barge that experiences a ruptured hydraulic line from non-integral crane would be an EPA-led response.

#### **Section 4: ENTITIES WITHIN THE GEOGRAPHICAL ZONE**

- A. The EPA Region 7 geographical zone includes the area that covers Iowa, Kansas, Missouri, and Nebraska within U.S. Coast Guard Eighth District.
- B. The following USCG D8 commands fall within the geographical zone under this MOA:
  1. Sector Upper Mississippi River: The Sector Upper Mississippi River Captain of the Port (COTP) area of responsibility (AOR) is detailed within 33 C.F.R. § 3.40-40.
  2. Sector Ohio Valley: The Sector Ohio Valley Captain of the Port (COTP) area of responsibility (AOR) is detailed within 33 C.F.R. § 3.40-65.
  3. Sector Lower Mississippi River: The Sector Lower Mississippi River Captain of the Port (COTP) area of responsibility (AOR) is detailed within 33 C.F.R. § 3.40-60.

#### **Section 5: INLAND ZONE BOUNDARY DESIGNATIONS**

- A. EPA Region 7 designation:
  1. EPA Region 7 provides the predesignated FOSC for pollution response in the inland zone, as defined in the NCP, 40 C.F.R. § 300.5. All discharges or releases, or a substantial threat of such a discharge or release of oil or hazardous substances originating within the inland zone will be the responsibility of the EPA. Included are discharges and releases from the unknown sources or those classified as “mystery spills.”
  2. The EPA FOSC is the predesignated FOSC for all areas or pollution incidents within Region 7 with exception of Section 5.B and the general response provisions delineated below. Responsibilities regarding inland waterways between EPA Regions (i.e., Ohio River and the Mississippi River) are delineated in a separate Memorandum of Understanding (MOU) between the EPA Regions.

**B. USCG D8 COTP FOSC Predesignation:**

1. The EPA Region 7 predesignates the relevant USCG D8 COTP as the FOSC in response to an incident in the inland zone when it:
  - (a) Involves either: (1) a commercial vessel, (2) a commercial vessel transfer operation, or (3) it is within or originating from the USCG regulated portion of a facility; and
  - (b) Results in a discharge or substantial threat of a discharge of oil or release or substantial threat of a release of a hazardous substance into or on the navigable waters of the United States or adjoining shorelines.
2. For the purposes of this MOA, the USCG regulated portion of a facility extends from the facility transfer system's connection with the vessel to the first valve inside the secondary containment surrounding tanks in the non-transportation-related portion of the facility or, in the absence of secondary containment, to the valve or manifold adjacent to the tanks comprising the non-transportation-related portion of the facility, unless another location has otherwise been agreed to by the COTP and the appropriate federal official.

**Section 6: GENERAL RESPONSE PROVISIONS**

- A. These provisions apply to all EPA FOSCs and USCG COTP/FOSCs serving EPA Region 7.
- B. The USCG and EPA Region 7 will assist each other consistent with agency responsibilities and authorities through the cognizant COTP and the inland zone predesignated EPA FOSC.
- C. These provisions do not preclude mutual assistance between the two agencies. In addition to 40 C.F.R. § 300.135(b), in this EPA Region, the EPA and the USCG will carry out agency and specific pollution response responsibilities under the NCP, the Regional Integrated Contingency Plan (RICP), and the applicable Subarea Area Contingency Plan, and will assist each other to the fullest extent possible to prevent or minimize the impacts of a discharge of oil, or substantial threat of a discharge of oil, or release, or a substantial threat of release of a hazardous substance where each respective agency has jurisdiction.
- D. Such mutual assistance will be provided based on notification and mutual consent that the assistance is requested and necessary to respond to: (i) a discharge of oil, or substantial threat of a discharge of oil, (ii) a release, or substantial threat of a release of a hazardous substance, (iii) a release or substantial threat of a release of pollutants or contaminants which may present an imminent and substantial endangerment to the public health or welfare. Notification will be provided by the COTP to the EPA FOSC, or by the EPA FOSC to the COTP, whenever a spill is discovered that appears to warrant the provision of mutual assistance. When it is mutually agreed that the provision of such assistance is beneficial, an FOSC from either organization may serve in the following capacities:
  1. As the FOSC for that incident;
  2. As the Federal On-Scene Coordinator's Representative (FOSCR) for the predesignated OSC; or,
  3. Perform duties as first federal official as outlined in 40 C.F.R. § 300.135(b).

- E. Regardless of any agreements within this MOA, it is the responsibility of the EPA and the USCG to ensure that the other agency has properly taken over FOSC responsibilities in its zone prior to relieving itself of any FOSC responsibility. Any verbal agreement to transfer FOSC responsibilities shall be followed up in writing and/or documented in a Situation Report (SITREP) or Pollution Report (POLREP).
- F. When the COTP is not notified via the National Response Center, the EPA shall notify the COTP immediately for all commercial vessel and USCG regulated facility spills or releases in the inland zone.
- G. The USCG COTP shall inform the EPA Region 7 duty officer immediately when the reported discharge or release is an actual or potential medium or major discharge or release. Additionally, the COTP shall provide verbal report or a SITREP/POLREP for all other response actions.
- H. The USCG D8 COTP in each zone shall provide, annually, a list of fixed USCG regulated facilities (33 C.F.R. Parts 126, 127, and 154) located in the inland zone of their area of responsibility to the Co-Chairs of the Regional Response Team.
- I. In addition, EPA Region 7 will notify the COTP and the Eighth Coast Guard District of any Regional Integrated Contingency Plan (RICP) or Subarea Area Contingency Plan meetings for the participation of Coast Guard units in the regional contingency planning process.

## **Section 7: OTHER PROVISIONS**

- A. Nothing in this Agreement is intended to conflict with current law or regulation or the directives of the United States Coast Guard or the Environmental Protection Agency, or any department in which these parties may be operating, nor any such laws, regulations or directives that may be promulgated hereafter. If a term of this Agreement is inconsistent with such authority, then that term shall be invalid, but the remaining terms and conditions of this Agreement shall remain in full force and effect.
- B. Notwithstanding any terms of this Agreement, nothing herein shall be construed to diminish or supersede any rights or authorities available to the parties. This MOA neither amends nor repeals any other requirement or authority conferred by any other provision of law. Nothing in this MOA shall limit, deny, amend, modify, or repeal any other requirements or authorities of agencies of the United States.
- C. This MOA does not create any right or benefit, substantive or procedural, enforceable by law or equity, by persons who are not party to this Agreement, against the EPA or USCG, their officers or employees, or any other person. This MOA does not direct or apply to any person outside of the EPA or USCG.
- D. Each party agrees that should a third party claim arise under the terms and conditions or the Federal Tort Claims Act (FTCA), Title 28, U.S.C. §§ 1346 and 2671 et seq., or of the laws of any state based on negligence or a wrongful act or omission, the party whose employee(s)' conduct gave rise to the claim shall be responsible for the investigation and disposition of said claim. For claims involving conduct of employees of more than one party arising out of a joint

activity conducted pursuant to this MOA, the parties agree to work cooperatively to determine which entity will be primarily responsible for the investigation and disposition of the claim.

- E. As required by the Anti-Deficiency Act, 31 U.S.C. §§ 1341 and 1342, all commitments made by the EPA and USCG in this MOA are subject to the availability of appropriated funds and budget priorities. Nothing in this MOA, in and of itself, obligates either party to expend appropriations or to enter into any contract, assistance agreement, interagency agreement or incur other financial obligations. Any transaction involving transfers of funds between the parties to this MOA will be handled in accordance with applicable laws, regulations and procedures under separate written agreements. This MOA will be incorporated by reference or included as an enclosure to any reimbursable agreement between the USCG and EPA resulting from this MOA.

#### **Section 8: EFFECTIVE DATE, MODIFICATION, AND TERMINATION**

This Agreement will become effective upon the signature of both parties. The Agreement will be subject to review and amendment coincident with each periodic review of the Regional, Area and other applicable contingency plans and at any other time at the request of either of the parties. It may be terminated by either party, effective 30 calendar days after providing written notice to the other. It will remain in effect until modified by mutual agreement or terminated.

#### **Section 9: POINTS OF CONTACT**

Points of Contact for the coordination, support, and implementation of this Agreement are as follows:

- A. EPA Region 7 – Mr. Kenneth S. Buchholz, Chief, Assessment, Emergency Response and Removal Branch, Lenexa, KS at (913) 551-7473; EPA's 24 hour number: (913) 281-0991.
- B. Eighth Coast Guard District – Captain Jose Jimenez, Chief, Response Division, New Orleans, LA at (504) 671-2229; USCG D8's 24 hour number: (504) 589-6225.

## **Section 10: SUPERSEDING POWER**

Regional and Area Contingency Plans of the signatory agencies will be amended to reflect the geographical boundaries and agreements contained herein. This MOA supersedes other MOU/MOAs previously in effect concerning the FOSC boundaries for purposes of pollution response within EPA Region 7.

Agreed to and entered into by the undersigned.

For U.S. EPA Region 7:



Date: 10/19/2016

Mark Hague  
Regional Administrator  
U.S. EPA Region 7  
11201 Renner Blvd.  
Lenexa, KS

For USCG D8:



Date: 11/2/16

David R. Callahan  
Rear Admiral, U.S. Coast Guard  
Commander, Eighth Coast Guard District  
New Orleans, LA

## **ANNEX II**

# **NUCLEAR/RADIOLOGICAL INCIDENT ANNEX TO THE NATIONAL RESPONSE FRAMEWORK**

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The Nuclear/Radiological Incident Annex (NRIA) to the National Response Framework (NRF) describes the policies, situations, concepts of operations, and responsibilities of the federal departments and agencies governing the immediate response and short-term recovery activities for incidents involving release of radioactive materials to address the consequences of the event. These incidents may occur on federal-owned or -licensed facilities, privately owned property, urban centers, or other areas and may vary in severity from the small to the catastrophic. The incidents may result from inadvertent or deliberate acts. The NRIA applies to incidents where the nature and scope of the incident requires a federal response to supplement the state, tribal, or local incident response.

The purpose of the NRIA is as follows:

- Define the roles and responsibilities of federal agencies in responding to the unique characteristics of different categories of nuclear/radiological incidents.
- Discuss the specific authorities, capabilities, and assets the Federal Government has for responding to nuclear/radiological incidents that are not otherwise described in the NRF.
- Discuss the integration of the concept of operations with other elements of the NRF, including the unique organization, notification, and activation processes and specialized incident-related actions.

The NRIA is available on-line at: [NUCLEAR/RADIOLOGICAL INCIDENT ANNEX \(fema.gov\)](https://www.fema.gov/nuclear-radiological-incident-annex).

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## **ANNEX III**

# **THE NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS) INCIDENT COMMAND SYSTEM (ICS)**

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**THE NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS)  
INCIDENT COMMAND SYSTEM (ICS)  
ANNEX III TO REGION 7 INTEGRATED CONTINGENCY PLAN**

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## **1.0 NIMS IMPLEMENTATION PROTOCOL ADDRESSING STATE AND FEDERAL RESPONDERS**

The National Incident Management System (NIMS) and Incident Command System (ICS) shall be used as an “all-hazards” model for managing and responding to incidents. The most qualified on-scene authority shall assume the role of the Incident Commander (IC). If the incident expands or requires the implementation of a Unified Command (UC), organizations that should be included should have one or more of the following:

- Jurisdictional Authority,
- The incident impacts the organization’s Area of Responsibility (AOR),
- The organization has specific responsibility,
- or have Resources.

The ICS should be based on the organization, terminology, and procedures recommended by NIMS and applied in a broad sense to include all hazard control and mitigation response organizations including the Responsible Party (RP), private responders; and local, state, and federal agencies. All such entities participating in a response are required by federal law to implement ICS and integrate it with the overall ICS (29 CFR 1910.120 or 40 CFR 311).

The ICS established will have as the IC the most senior on-scene official with the expertise, capability and determination to be the commander. The IC can be from a local unit of government or from a county, state or federal agency, as long as he/she has the expertise, capability, determination and authority. This protocol recognizes that typically, but not necessarily, the IC will change as the incident progresses from being primarily a public safety problem, with the local fire chief as IC, to an environmental incident, with a state or federal person as the IC. The following procedures specify a determinate yet flexible means of establishing the role of federal and state responders in an ICS.

To document the incident planning process, jurisdictions should develop an Incident Action Plan based on ICS forms. The IC can use locally developed ICS forms or those made available by other agencies such as the US Coast Guard. A list of the EPA’s modified ICS forms can be downloaded at [response.epa.gov/ICS\\_FORMS](https://response.epa.gov/ICS_FORMS).

## **1.1 SINGLE JURISDICTIONAL AREA AFFECTED**

When the incident involves and affects only a single local geographical jurisdiction, the organizational structure of the ICS will be determined by the established local contingency plan. This may involve single or multiple agency involvement. In all situations, one person shall act as either an IC in sole charge or, when functioning as an Operations Chief, will implement the action plan through a UC structure.

In such instances, responding state and federal officials who might otherwise be considered the senior competent emergency response official at the site, shall either:

- Identify themselves to the IC and integrate themselves into the established ICS per the IC's direction, usually as a technical specialist to an operations group supervisor or as an operations group supervisor; or
- Join an existing UC or request the IC to establish UC; or
- Assume the IC role when required by federal or state law, or when an existing IC agrees to such a transition, or when no ICS has been established. The ICS transfer of command or initial assumption of command protocols shall be used.

## **1.2 MULTIPLE JURISDICTIONAL AREAS AFFECTED**

When the incident involves and affects multiple local geographical jurisdictions or areas not covered by local emergency response organizations, the state or federal competent senior official at the site shall either:

- Preferably join an existing IC/UC; or
- Establish a UC for an encompassing ICS if none exists; or
- Assume command and establish an ICS incorporating existing local efforts as operations section branches or otherwise as appropriate.

## **1.3 LOCAL, STATE, FEDERAL INTERACTION**

When not specifically prescribed, a UC consisting of local, state and federal senior competent emergency response officials at the site shall be the preferred approach to integrating several levels of government into an ICS. Where state law specifies IC/UC assignment, it shall take precedence over this protocol with respect to those state and local organizations to which it



applies. Federal jurisdiction specified in CERCLA, OPA, or RICP shall take precedence over this protocol.

## **1.4 SENIORITY**

Seniority, as discussed in 29 CFR 1910.120 (q)(3)(I), is ranked according to competency and breadth of responsibility for purposes of this plan.

Competency will be determined by meeting the requirements of 29 CFR 1910.120 (q)(6)(v). All officials meeting the competency criteria are senior to those who do not, unless specifically charged with overriding authority applicable to the specific incident situation by state or federal law.

Breadth of responsibility will be considered to increase from most local to state to federal. However, this protocol encourages the establishment of the ICS at the most local level practicable to assure the earliest implementation of a unified response strategy.

## **1.5 POST-EMERGENCY OPERATIONS**

This protocol is intended only to apply during the emergency phase of a response to which 29 CFR 1910.120 (q) applies. However, use of an ICS throughout a response and cleanup is encouraged.

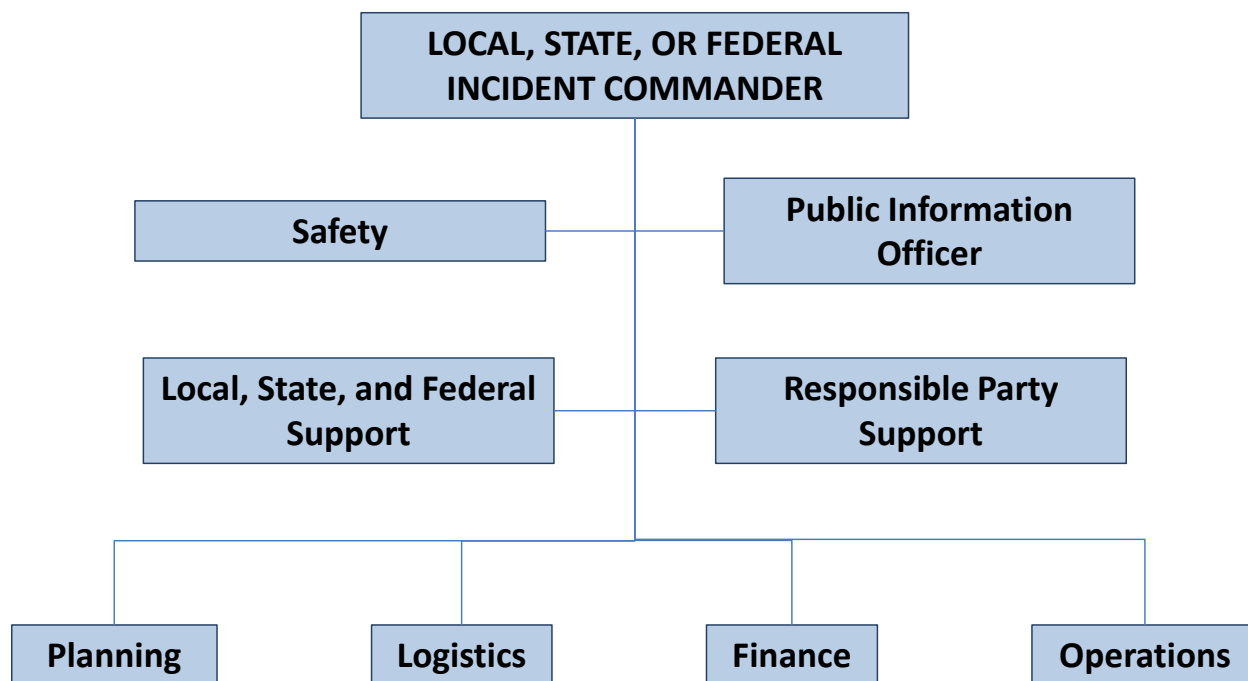
## **2.0 TRANSITION OF COMMAND**

### **2.1 SINGLE INCIDENT COMMANDER**

Because oil and hazardous materials incidents involve many players and changes through time, it is important that the leadership, responsibilities and roles during a dynamic response action be established. Some responders serve as support players, while others have a command role. Rarely is one person or organization solely responsible for all aspects of a response to an incident involving oil or hazardous materials. An organizational chart reflecting such a circumstance is shown in Figure III-1.

**FIGURE III-1**

**ICS WITH A SINGLE INCIDENT COMMANDER**

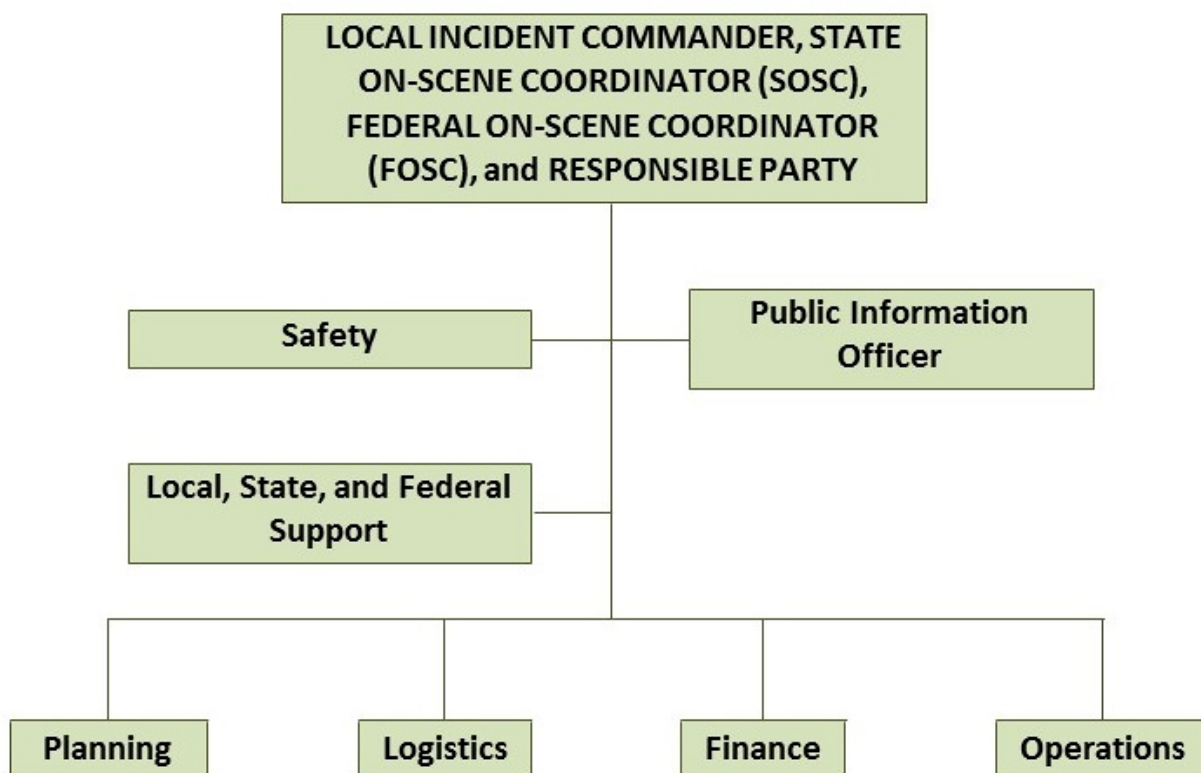


A very large incident involving oil or hazardous substances might include responders from many different organizations, each responding according to their responsibilities and authorities. If the incident affects a wide geographic area, or if several functions need to be performed by agencies with distinctly different capabilities, a transition may occur from a single IC to a UC structure. The local IC, or a State or Federal OSC, may recommend the formation of a UC structure.

Upon agreement, the qualified individuals assume command roles. UC is not command by committee, but rather is a mechanism for coordination, cooperation, and communication, under which each party is allowed to operate in its appropriate sphere of command. Each organization shares the same command responsibilities within an ICS. An example of a UC organizational structure is shown in Figure III-2.

**FIGURE III-2**

**ICS WITH A UNIFIED COMMAND**



When a UC is implemented, the local IC and the State and/or Federal OSC(s) meet and take the following measures:

- Agree to act in concert, or at least coordinate efforts,
- Agree on objectives, priorities and strategies,
- Recognize each other's authorities, capabilities, limitations, responsibilities, and roles, and
- Establish lines and methods of communication.

Any single organization's command influence typically grows or shrinks as the incident continues, and as its area of responsibility and expertise come into or go out of play. The UC group may appoint a single person to carry out the command decisions. The rest of the response functions (planning, operations, logistics and finance) usually will also be "unified" by commingling responders of the various organizations.

The UC and response generally continue until the response is terminated, or the roles of all but one level of government have diminished to the point when the primary level of government provides a single IC. The transition to a single IC will again be made through the mutual agreement of the members of the UC. The agency that provides the IC will then be responsible for implementing procedures for termination of the response.

## **2.2 OVERSIGHT COMMAND**

The single IC and UC models were originally designed to facilitate the coordination and communication within one organization, or among several organizations. Organizations that share a UC cooperatively respond to an incident as equal partners with different capabilities. A company or person responsible for a spill must plan, propose, organize, and pay for response to the spill. Government's role is to oversee the RP's response, to order changes if a response is insufficient, and ultimately to approve the adequacy of the RP's response. The integration of the government's regulatory relationship to an RP into the ICS requires the concept of oversight command.

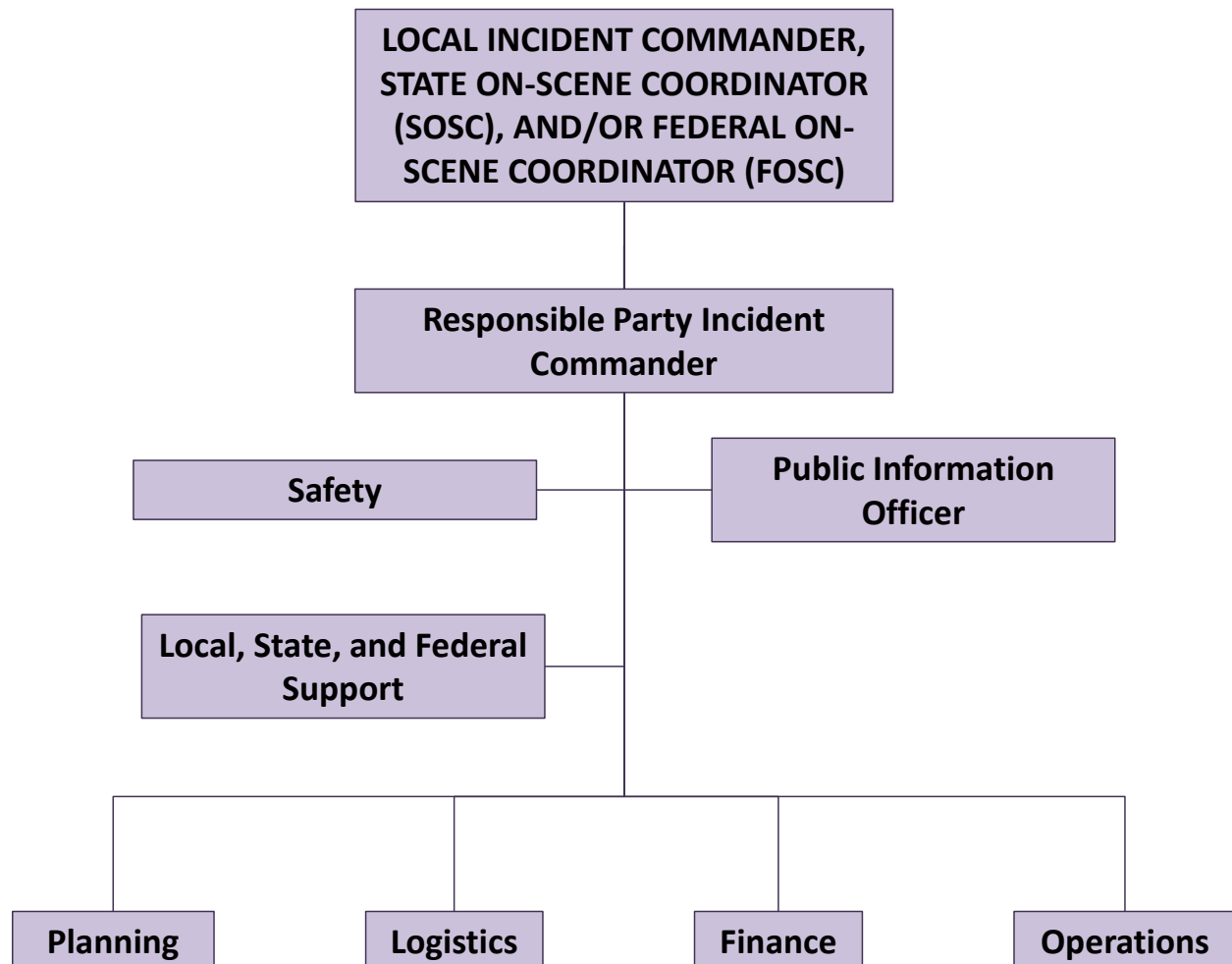
When a responsible party is incapable or unwilling to provide an adequate response to a release, or where there is a threat to the public health or safety, the IC/UC structure is implemented by government agencies in the manner described previously. However, when an RP is capable and willing to respond, and the release represents more of a threat to the environment than to the general public, the government agencies support and oversee the efforts of the RP. The governmental agencies accomplish these tasks by establishing parallel single or a UC structure.

The governments overseeing the RP's response will have a person or persons in charge of that oversight. If more than one government agency is conducting oversight, responders will coordinate that oversight according to the principles of UC. Depending upon the circumstances of the incident, the governmental agencies might have contractors assisting the Oversight Commander(s).

The RP's IC and the government's Oversight Commander(s) will meet and agree on cleanup response objectives and priorities. The government's Oversight Commander(s) will typically determine the cleanup target and schedule. The two (or more if unified) commanders meet

frequently to update each other on cleanup progress and to revise objectives and schedules. Significant problems identified within the ranks of either the RP's or governmental organizations are discussed and resolved. Requests for formal approvals for such actions as mitigation, decontamination, and disposal are made from the RP's IC to the Oversight Commander(s). Figure III-3 demonstrates an organizational chart for an oversight command.

**FIGURE III-3**  
**ICS WITH OVERSIGHT COMMAND**



## 2.3 FEDERAL PREEMPTION

The NCP gives an FOSC the authority to direct all response efforts at the scene of a discharge or release. Typically, an FOSC will support the actions of local and state government. Even an FOSC who is part of a UC might focus federal efforts on a specific part of the response.

In some cases, however, the FOSC might determine that he or she must use preemptive authority to direct all efforts at the scene. Such a determination would be appropriate under the following circumstances:

- A discharge of oil is classified as “major” (over 10,000 gallons).
- A release of a hazardous substance is classified as “major” (a release that poses a substantial threat to public health or welfare of the United States or the environment or results in significant public concern).
- The discharge or release is a “spill of national significance” (a spill that due to its severity, size, location, actual or potential impact on the public health or welfare or the environment, or the necessary response effort, is so complex that it requires extraordinary coordination of federal, state, local and RP resources to contain and clean up the discharge).
- Because of the RP’s inability or unwillingness to respond, the FOSC decides to pay for the response with funds from CERCLA or OPA (“federalize” the response).
- Actions taken by the RP, or local, or state responders are inappropriate or ill-advised.
- Lack of cooperation among the RP and local and state responders is impeding prompt and effective response.

An FOSC who decides to direct all response actions must notify the RP’s IC, the local government’s IC and the State’s OSC of these intentions. Such notification ensures that all of the lead organizations are aware of the change of status. An FOSC who exercises this authority becomes the IC for the entire incident, and must assure compliance with OSHA’s 1910.120 regulations regarding response to releases.

## **ANNEX IV**

# **POLICY AND GUIDELINES ON USE OF ISB AND CHEMICAL & BIOREMEDIATION COUNTERMEASURES**

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# POLICY AND GUIDELINES ON USE OF ISB AND CHEMICAL & BIOREMEDIATION COUNTERMEASURES

## ANNEX IV TO REGION 7 INTEGRATED CONTINGENCY PLAN

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## 1.0 OIL SPILL COUNTERMEASURES POLICIES FOR REGION 7

This policy is applicable to the navigable waters of Region 7, including backwaters, except for those areas that are covered by a Subarea Contingency Plan (SACP) and Chemical & Bioremediation Countermeasures (CBC) policy. Subarea Planning Committees may develop specific policies for ISB (ISB) and other countermeasures, as long as they are consistent with local, state, and federal regulations.

Oil spill responders have a limited number of techniques available to them that will minimize environmental impacts and facilitate effective cleanups. These include mechanical methods, the use of certain CBCs, and ISB. All four states, local authorities, and federal agencies with jurisdiction in Region 7 advocate the use of mechanical containment and cleanup as primary spill response methods. These methods include the use of absorbent pads, containment boom, skimmers, and similar equipment. **In general, the use of dispersants is not allowed within the boundaries of authority by the Region 7 Regional Response Team (RRT).**

**Notes:** On December 11, 2023, the National Contingency Plan (NCP) Subpart J final rule, as amended, became effective. See [40 CFR §§ 300.900 through 300.970](#) regarding the use of CBCs.

### 1.1 GENERAL POLICY

The Federal On-scene Coordinator (FOSC) has the authority to utilize, or approve, any actions necessary to prevent, or substantially reduce, the threat to human life. This includes, but is not limited to, the use of CBCs and ISB (see [40 CFR § 300.910](#)). The FOSC will inform the affected RRTs as well as the RRT representatives of any affected states of these actions. Other interested parties, such as natural resource trustees, should be informed as appropriate.

When there is no longer an immediate threat to human health and welfare, the use of CBCs, and/or ISB will be evaluated on a case by case basis, and is to be conducted in accordance with the remainder of this policy.

### **1.1.1 CBC Procedure**

For CBCs the approving authority is the FOSC when the FOSC has obtained the concurrence of both the RRT's EPA co-chair and the affected state's representative, and, to the maximum extent practicable, consulted with the Federal Natural Resource Trustees' representatives on the RRT (40 CFR 300.305(e)).

### **1.1.2 ISB Procedure**

ISB, for the purposes of this guidance, is defined as the intentional ignition of spilled oil that will burn due to its intrinsic properties, and does not include the adding of a separate burning agent to initiate or sustain the burn. The addition of burning agents requires the CBC procedure approval because such agents are considered to be in the same category as CBCs. ISB can be performed on the open water and near or on shore.

The use of ISB in these guidelines is not for disposal purposes; rather, it is a response technique to be employed when an oil slick has the potential to spread and contaminate additional areas. It is also considered as a cleanup technique for oiled shoreline habitats such as wetlands, where it is used in conjunction with other cleanup methods.

For ISBs in Region 7, the approving authority designated by this policy is the local Incident Commander (or Unified Command as applicable) and the State On-scene Coordinator (SOSC) (with the appropriate state permit).

- If the proposed burn is on a local, state, tribal, or federally-owned or managed natural resource area, the concurrence of the landowner/manager must be obtained.
- Because state- or federally-listed threatened or endangered species, migratory birds, managed natural resource areas, or other natural resources could be affected, all responders and trustees share interest in timely and effective removal of spilled oil in ways that protect natural resources and the public's safety. Local incident commanders, SOSCs, and FOSCs shall consider the size, nature, and location of a spill, and the type and proximity of resources, and shall, to the maximum extent practicable, consult with state and federal, and, as appropriate, Tribal, trustees before deciding to conduct ISB. It is the expectation of the members of the Region 7 RRT that, except in extraordinary cases, a local incident commander or state or FOSC shall contact appropriate trustees and allow at least three hours for trustees to advise before proceeding with any proposed in-situ burn.

In addition, whenever time permits, the views of the FOSC should be sought and considered.

Because the timeframe for making decisions regarding ISB is often very short, guidelines are included in Section 2.0 to assure that the most significant issues are considered. This decision-making methodology for burning has been approved by the Region 7 RRT.

## **1.2 SPECIAL POLICY FOR FOSC DIRECTED BURNS**

Region 7 burns are governed by the NCP and state and local regulations.

It is the Region 7 policy that all burns in Region 7 must comply with local, state, and federal regulations.

The FOSC is authorized to use any countermeasure without requesting permission if he or she believes its use is necessary to prevent or substantially reduce a hazard to human life (40 CFR 300.910 (d)). SOSCs may have similar authority under applicable state laws and regulations.

## **2.0 ISB**

### **2.1 POTENTIAL EFFECTIVENESS OF ISB**

Although ISB is a relatively simple technique, its effectiveness can be limited by spill circumstances. Whether and how oil burns is the result of the interplay among a number of physical factors related to the oil itself and the extent to which the oil has been exposed to the environment. Critical factors such as oil thickness, degree of weathering, and extent of emulsification generally change with the passage of time, and the changes that occur make it more difficult to burn the oil. As a consequence, ISB is most easily and effectively implemented during the early stages of a spill.

The efficiency of ISB is highly dependent on a number of physical factors. Test burns and actual spill situations suggest it can be very effective in removing large quantities of oil from the water. Burn efficiencies of 50 to 90 percent can be expected, making this response method more efficient than other methods. In comparison, mechanical removal (such as skimming) typically has an efficiency of 10 to 20 percent.

ISB has most often been considered and tested with crude oil spills. However, its feasibility with other types of refined oil products (e.g., diesel and Bunker C fuel oil) also has been demonstrated. Difficulties with establishing and maintaining necessary slick thicknesses (in the case of lighter oils) and ignition (for heavier oils) make ISB a slightly less viable alternative for those materials than for crude oils.

### **2.2 RELATIONSHIP TO MECHANICAL AND OTHER RESPONSE METHODS**

Spill prevention is the first line of defense in spill response planning, however, acceptance of the probability that a spill can and will occur is essential to successful preparedness. Burning will be considered as a possible response option only when mechanical containment and recovery response methods are incapable of controlling the spill alone.

While physical containment and mechanical removal of spilled oil is the primary objective of any response, prudent planning dictates the consideration of alternative countermeasures.

### **2.2.1 Summary of Potential Tradeoffs Relevant to ISB**

As is the case with all response methods, the environmental tradeoffs associated with ISB are situation dependent and cannot be considered independently from operational tradeoffs. ISB can offer important advantages over other response methods in specific cases and may not be advisable in others depending on the overall mix of circumstances.

### **2.2.2 Advantages**

- In certain areas where other techniques may not be possible or advisable due to the physical environment (e.g., ice conditions or wetlands) or the remoteness of the region, burning may represent one of the few viable response choices besides no action.
- ISB may prevent or significantly reduce the extent of shoreline impacts, including exposure of sensitive biological resources, and wildlife habitats, and the oiling of high-value recreational or commercial beaches.
- The magnitude of a spill may overwhelm the containment and storage equipment deployed or available for a region, necessitating the consideration of other methods in an overall response strategy.
- Burning can rapidly remove a large volume of oil from the surface of the water, reducing the magnitude of subsequent environmental impacts of stranded oil.

### **2.2.3 Disadvantages**

- Large quantities of highly visible black smoke are generated that may adversely affect human and other exposed biological populations downwind.
- There may be the potential for mortalities and other adverse biological impacts from localized temperature elevations at the water surface. Although this would be expected to occur in a relatively small area, in specific bodies of water at specific times of the year, affected populations may be large enough or important enough to represent reasons for not considering burning as a cleanup technique. Adverse impacts from temperature elevation should be considered relative to the toxic effects of the spill if burning is not employed.
- The longer term effects of burn residues on exposed biological populations has not been investigated. It is not known whether these materials represent a significant source of toxicity.
- ISB must be carefully controlled in order to maintain worker safety and to prevent unintended environmental impacts.
- There is a relatively short window of opportunity to use burning after a spill occurs prior to the oil weathering and losing its flammable characteristics.

## **2.3 ISB DECISION PROCESS**

The following checklist will assist FOSCs at any level to ensure that reasonable decisions are made on the use of ISB in Region 7.

### **2.3.1 Step 1: Site Conditions and Desirability**

- Access routes to the scene?
- Locational information, including: river mile or latitude/longitude or other precise geographical description?
- Proximity to public, biological populations, transportation routes, and valuable property?
- Material, type, amount, area, age, phases, condition of the spill?
- Environmental conditions: air temperature, wind speed, lake/river current speed, wave heights, waters temperature, ice conditions?
- Will the use of ISB prevent or reduce further damage by the spill?
- Are mechanical containment and recovery adequate? If so, explain why burning is being considered.
- Ecological factors such as environmentally sensitive areas? See Appendix A.1 through A.7 for various considerations.

### **2.3.2 Step 2: Feasibility**

- Can worker, public, and property safety be reasonably assured? Responders risk exposure to airborne toxic agents. See Appendix IV-E for more information.
- Can the fire be contained?
- Are environmental conditions favorable? Wind speeds less than 20 knots (23 miles per hour [mph], 34 feet per second [feet/sec]), currents less than 3/4 of a knot (0.9 mph, 1.3 feet/sec), and waves less than 3 feet?
- Will the smoke plume lower the visibility enough to adversely impact transportation via air, water, or land?
- Are atmospheric conditions very stable (i.e., winds are light, and fog or low stratus clouds are present)? Then, the smoke plume will likely be more difficult to disperse, and you might not want to burn unless there will be no human impact.
- Is the oil burnable? Recommended thicknesses are 2 to 3 millimeters (mm) for fresh crude oil, 3 to 5 mm for diesel and weathered crude, and 5 to 10 mm for emulsions and bunker C fuel oil. Water in oil emulsions containing more than 30 to 50 percent water are difficult to ignite and support combustion. Most oils readily burn if the water content is less than 25 percent. Most crude oils require an evaporative loss of less than 30 percent to burn.



- Residues: The removal of burn residues should be considered since the potential exists for undefined levels of environmental impacts even with a successful burn. See final pages of Appendix IV-F for additional information.
- Is the product ignitable without adding a burning agent? CBC procedure approval is required for use of burning agents. The term “burning agents” means those additives that, through physical or chemical means, improve the combustibility of the materials to which they are applied. It is recommended that, when addition of a burning agent is being evaluated, first consideration be given to the more environmentally friendly products such as kerosene or jet fuel “A” before considering more environmentally hostile products such as gasoline or diesel. Also, if the latter materials are used, considerations must include the toxicity of additives such as methyl tert-butyl ether (MTBE), gasoline with ethanol, etc. and the adverse environmental impacts this will cause.
- Is the product gasoline or other light petroleum product? If so, both mechanical techniques and ISB are viable options. However, due to the greater flammable hazard, uncontrolled sources of ignition should be removed from the area, only intrinsically safe equipment should be used on the site, and combustible gas indicators should be used to monitor for flammable vapors.
- Is the area forested or are conditions very dry? If so, then it may not be safe to burn.
- If in a marsh or wetlands area, see Appendix IV-A.
- Are adequate fire boom, towboats, and igniters available?
- Is adequate helicopter/monitoring equipment available?
- Can notices to mariners, aircraft, and populations be issued in time?
- Can personnel and equipment be mobilized in time?
- Can authorization be secured in time?
- Is a source for extinguishing the fire available such as fire trucks, water pumps, etc.?

See Appendix IV-F for information on operational considerations: open water burning, inland environment burning, ice conditions, fire boom, ignition, oil thickness, weathering, emulsification, and burn residues.

### **2.3.3 Step 3: Acceptability**

- Distance between burn and human population?
- Will ambient levels of airborne particulate matter (PM) less than 10 microns in diameter (PM-10), averaged over 1 hour near humans, be above 150 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) or will ambient levels of PM with diameter less than 2.5 microns (PM-2.5), averaged over 24 hours, near humans, be above 35  $\mu\text{g}/\text{m}^3$ ? If so, evacuate or shield them, or do not conduct the burn.

- Are air monitoring capabilities available?

Generally, burning should not be conducted if human population centers exist within 6 miles downwind of the burn or 3 miles in other directions. These distances are only a rule of thumb; they may be longer or shorter depending on the circumstances of the case. In general, a safety margin of 45 degrees of arc on either side of the wind vector should be allowed to account for wind shifts. This means that burning is not recommended if there is a human population center within 6 miles from the burn measured along the wind direction and expanded 45 degrees on either side of the wind direction. A 3-mile safety margin is recommended in other directions.

Other considerations include:

- Does the landowner concur with the decision to burn? Are there cultural, historical, or archaeological resources that could be affected by the burn? If so, probably should not burn.
- Does the proposed burn area contain state or federal threatened or endangered species populations or their critical habitats? If so, and the proposed burn appears likely to result in greater overall injury to those species or habitats than other response actions, including “no action,” the State and Federal Natural Resource Trustees would likely object to it, and should be contacted.

Note: Habitat fact sheets describing the impacts of various response methods (e.g., ISB, suction, vegetation removal, sorbents, etc.) are available at the [Regional Response Team 5 website](#).

#### **2.3.4 Step 4: Authorization and Conditions**

- Are forecasted weather conditions favorable?
- The Site Safety Plan should be reviewed to ensure that ISB is adequately addressed.
- Unified Command authorities to start, proceed, limit, or halt the burn must be recognized.
- Conduct trial burns to evaluate smoke plume drift and dispersion.
- Are burn extinguishing measures available?
- Public notification. See Appendix IV-C for guidelines on Public Notification.
- A written description of the incident and burn plan should be provided to the FOSC and other pertinent players.
- Public Information Officer (PIO) involvement – for example, messaging press releases (PR), fact sheets (FS). See Appendix IV-C.

### 2.3.5 Step 5: Monitoring

The primary operational purpose in monitoring the burning of spilled oil is to determine if burning requirements and objectives are met. Because the current body of knowledge about burning is limited, the secondary purpose in monitoring is to provide an opportunity to gather further information. Operational monitoring should occur during a response involving the use of ISB and should be accompanied by a detailed monitoring plan.

Operational monitoring should include such parameters as:

- Type and amount of oil spilled;
- Weather and water conditions;
- Trajectory of the slick and smoke plume;
- Estimated volume of oil to be burned;
- Estimated volume of oil actually burned and remaining;
- Effectiveness of residual material collection;
- Adverse effects to natural resources both pre- and post-burn (e.g., number of dead organisms);
- Effects on human health (see appendix IV-B for air monitoring guidelines).

In an effort to gather more data about ISB, research possibilities involving a broad range of physical, biological, and chemical issues, are encouraged. Research monitoring might involve:

- Collection of oil samples prior to burning for analysis;
- Observations of residual material's behavior and fate;
- Collection of residual material for analysis;
- Upwind and downwind air sampling;
- Documentation of number and location of sampling stations;
- Determination of contaminant compounds (e.g., polycyclic aromatic hydrocarbons [PAH] or particulates) to be monitored;
- Documentation of Species and numbers of biota (e.g., waterfowl, aquatic organisms, vegetation) in the area.

### 2.3.6 Step 6: Reports

- A lessons learned report should be submitted by the Unified Command to the FOSC (and thence to the RRT), SOSC, State and Federal Natural Resource Trustees, and

local incident commander. The feedback from these reports will help in evaluating policies and procedures and improving them as needed, especially since burning is a relatively new countermeasure in Region 7.

- Post-burn monitoring of the site should be considered, including biota recovery, residual oil remaining, etc.

## 2.4 ISB REFERENCE SOURCES

- *Field Operations Guide for In-Situ Burning of Inland Oil Spills*, American Petroleum Institute, Technical Report 1251, July 2015
- *Field Operations Guide for In-Situ Burning of On-Water Oil Spills*, American Petroleum Institute, Technical Report 1252, July 2015
- *Applicability of Clean Air Act Ambient Air Quality Regulations to the In Situ Burning of Oil Spills*, National Response Team (NRT), November 1995
- NOAA Office of Response and Restoration – ISB:
  - *Oil Spills in Marshes: Planning and Response Considerations*, September 2013
  - Special Monitoring of Applied Response Technologies (SMART) for ISB & CBC
  - Residues from ISB of Oil on Water
  - Health and Safety Aspects of ISB of Oil
  - ISB Emissions Comparisons, 2012
- Regional Response Team 6, *Guidelines for Inshore/Nearshore ISB*

### **3.0 CHEMICAL & BIOREMEDIATION COUNTERMEASURES (CBC)**

#### **3.1 WHAT A RESPONDER NEEDS TO KNOW TO CONSIDER USE OF A CBC**

Except for specific circumstances (i.e., to prevent or substantially reduce a hazard to human life in accordance with 40 CFR 300.910 (d)) the use of CBCs will be considered on a case by case basis. CBCs include dispersants, surface washing agents, bioremediation agents, or miscellaneous oil spill control agents listed on the NCP Product Schedule. Descriptions and guidelines for each follows.

**In general, RRT policy does not allow the use of CBCs on navigable waters.**

There are no preapproved uses for CBCs within Region 7, excluding use on small roadway spills, as described below. In general, incident-specific conditions vary too widely on inland spills to allow for preapprovals.

Local/state/federal Incident Commanders are preauthorized the use of CBCs, listed on the NCP Product Schedule, to address small spills to roadways. This exemption has been developed for the protection of public safety and preservation of roadway surfaces. CBCs may be used for these incidents when no immediate threat to surface water or groundwater quality is evident. Additionally, measures to contain runoff from the spill cleanup action should be taken.

Consistent with the NCP, in situations when a human hazard is not present, the FOSC must receive the concurrence of EPA RRT representative(s), and the RRT representative(s) of the affected state(s) to use any chemical product. The FOSC must also consult with the Department of Interior (DOI) and Department of Commerce (DOC) natural resource trustees, where practicable, before authorizing the use of a chemical product. Any FOSC or responders must comply with applicable local, state, and federal regulations.

Note that the FOSC is authorized to use any chemical product without requesting permission if he or she believes its use is necessary to prevent or substantially reduce a hazard to human life (40 CFR 300.910 (d)). If a chemical or bioremediation product is used under these circumstances, the FOSC must notify the EPA RRT representative and the state(s) RRT representative of its use as soon as possible. This policy should be applicable to any OSC, whether local, state, or federal.

General CBC showstoppers:

- Is the product on the NPC Product Schedule at [NCP Subpart J Product Schedule \(December 2023\)](#)? If not, then it should not be used except as noted in 40 CFR 300.910 (d).
- Will the CBC be used in accordance with product-specific recommended application procedures described in the NCP Product Schedule Technical Notebook at [NCP Subpart J Technical Notebook \(December 2023\)](#)? If not, then it should not be used except as noted in 40 CFR 300.910 (d).
- Are all players in agreement on its use? If not, then it should not be used. These players shall include the local incident commander, FOOSC, SOS, and the State and Federal Natural Resource Trustees.
- CBCs require RRT approval.

### **3.2 CBC DECISION PROCESS**

#### **3.2.1 Step 1: Site Conditions and Desirability**

- Can worker safety be reasonably assured?
- Are environmental conditions favorable?
- Access routes to the scene?
- Locational information, including: river mile or latitude/longitude or other precise geographical description?
- Material type, amount, area, age, phases, condition of the spill?
- Proximity to public, biological populations, transportation routes, or valuable property?
- Will the use of CBCs prevent or reduce further damage by the spill?
- Are mechanical containment and recovery adequate? If so, explain why CBCs are being considered.
- Ecological factors such as environmentally sensitive areas?

#### **3.2.2 Step 2: Feasibility**

- Will the use of a CBC be effective and produce the desired result? The listing of a product on the NCP Product Schedule does NOT mean that EPA approves, recommends, licenses, certifies, or authorizes the use of the product on an oil discharge. The listing means only that data have been submitted to EPA as required by Subpart J of the NCP, Section 300.915.
- Has impact of floating oil been determined to be greater than impacts resulting from mixing of oil into the water column?

- Are recovered oil storage capacities very limited, or has the formation of emulsified oil resulted in skimmer inefficiencies?
- Does the efficiency of skimmers need to be further increased?
- Are sensitive resources such as wetlands at risk, and is equipment readily available early in the spill?
- Is immobilization of the oil necessary for the prevention of refloating, substrate penetration, or further spreading?
- Is the oil projected to impact shorelines which have high recreational or aesthetic value?
- Are medium weight or diesel-type oils resisting other removal methods?

#### **APPENDIX IV.A PROPOSED GUIDELINES FOR ISB IN MARSHES**

Based on the available data on effectiveness and effects of burning on oiled marshes, the following guidelines are proposed:

- Make sure that it is possible to contain and control the fire; it is not as easy to put out a fire in vegetation as it is with oil contained on water using a fireproof boom.
- Impacts to marsh vegetation are likely to be lower if there is a water layer between the oil and the substrate.
- A standing water layer of just a few inches may get hot enough to kill shallow roots, however, little information is available regarding this effect.
- Burning of oiled woody wetland vegetation (compared to grasses and sedges) should not be conducted.
- Not enough is known about seasonal effects on the ability of burned, oiled vegetation to recover, yet burning in late fall to early spring, when the vegetation is dormant and before production of new growth, seems to be the best time.
- If it can be done with minimal impacts, heavy accumulations of oil should be removed using other methods to reduce the amount of burn residues, which may cause long-term impacts to both vegetation and animals returning to the habitat.
- Light fuel oils and crudes burn more efficiently and generate less residues, which should reduce the potential for long-term impacts.
- Burning of oil trapped in ice appears to have the least environmental impacts because the burn area is contained, plants are dormant, and aboveground vegetation is also dormant.
- There is some concern that burning of muddy substrates could alter their physical properties (i.e., make them hard), thus degrading their biological productivity.
- Every wetland is different in terms of its type, the species present, condition (optimal or marginal for species use), and known or estimated tolerances of that type of system to physical and chemical disturbances. Biologists or botanists should be consulted prior to the use of burning as a cleanup technique in a wetland.
- Mechanical or manual alternatives to ISB may compact oil into sediments, where it persists longer. Therefore, the relative damages from different response options should be weighed carefully.



#### **IV.A.1 ISB IN WETLAND HABITATS**

There are few studies on the relative effects of burning oiled wetlands compared to other techniques or natural recovery, and most of the experience is derived from estuarine habitats. However, ISB in wetlands can be effective, because it can remove a large quantity of oil with a minimum of physical disturbance. The type of wetland vegetation and the season of the year, along with many other factors, will dictate whether burning is feasible in a particular wetland.

Refuge managers have historically conducted prescribed burns to rejuvenate wetlands that have accumulated high litter loads, generate green vegetation or open spaces to attract wildlife, release nutrients for recycling, and restore habitats in areas that were historically subject to frequent wildfires to their natural conditions. The presence of oil in a wetland may have two important effects: the high energy content (measured in British thermal units [BTU]) of the oil may increase the temperature and heat penetration of the burn, and there is often an oil residue which can be toxic to the environment. The experiences of fire ecologists and practitioners can greatly contribute to the development of guidelines for burning wetlands as a spill response strategy. Guidance has been developed for specific types of wetlands such as:

- Wooded swamps
- Fresh to brackish impoundment marshes
- For Region 7 marshes (lock and dam pools)
- Riparian wetlands
- Inland freshwater marshes
- Potholes

Based on discussions with refuge staff with fire management duties, the following general considerations for burning were developed:

#### **IV.A.2 PROS**

- Where access is limited or mechanical/manual removal has the potential to cause more damage by equipment and trampling, burning can rapidly remove oil from sensitive areas.
- It provides a response option when no others are acceptable, or where likely oil residues will be unacceptably high with other options, including natural recovery.

- It rapidly removes oil from the habitat when there is a time-critical element, such as a short-term change in the physical conditions which will likely cause loss of containment and further spreading, or a seasonal increase in wildlife use, such as arrival of large numbers of migratory waterfowl.

#### **IV.A.3    CONS**

- Burning can cause substantial initial plant damage, because the aboveground vegetation is removed.
- Burning can cause long-term impacts to vegetation, especially if the fire is so hot that the submerged plant parts are killed.
- There is a potential for burning to increase oil penetration into the substrate, when there is no standing water.
- Any animals present and unable to escape (such as gastropods on clean vegetation above the oiled area) will be killed.

## **APPENDIX IV.B**

### **AIR MONITORING GUIDELINES FOR HUMAN HEALTH IMPACTS OF ISB**

ISB may affect two groups of people: the workers conducting the burn (the responders), a fairly homogeneous group of young, healthy adults, and the general public, which is much more heterogeneous and includes individuals who are more susceptible to toxic agents. The basic premises and possible monitoring options for each group are discussed below.<sup>1</sup>

#### **IV.B.1 MONITORING FOR RESPONDERS**

The responders, i.e., the workers assigned to conduct the ISB, are likely to be healthy and physically fit adults. Responders' locations will vary with the nature of the burn and the stage at which it is conducted. Most of the time they are expected to be upwind of the slick and the smoke plume. However, at times they may be downwind of the evaporating slick and therefore potentially exposed to volatile organic compounds (VOC). Responding crews may also be downwind and near the burning oil, where they can be exposed to combustion products.

Responders may be exposed to VOCs from the evaporating slick, similar to what is expected during skimming operations, and to combustion by-products from the burning oil: carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), particulates, and other combustion products. Air concentrations of those substances depend on many variables, and substantial variability can be expected. Responders may be exposed to levels of gases and particulates above the permissible occupational exposure limits, and should therefore be provided with personal protective equipment (PPE) and be trained in its proper use. In reality, responders' exposure is likely to be intermittent, and will vary greatly depending on location, weather conditions, and assigned tasks. Overall exposure duration is expected to vary from minutes to several hours.

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<sup>1</sup> See also the National Response Team's "Guidance On Burning Spilled Oil In Situ", 1995 (<https://www.nrt.org/sites/2/files/airregs.pdf>) for a discussion on the recommended limits for short-term human exposure to PM-10 during ISB.

#### **IV.B.1.1 Sampling Purpose**

Sampling the responders' exposure levels should serve several purposes, among them:

- Characterize exposures and hazards associated with the operation to provide better protection;
- Ensure compliance with Occupational Safety and Health Administration (OSHA) requirements, per 29 CFR 1910.134 b.(8)1 and 29 CFR 1910.120.q.3.(ii)2;
- Provide data collection for scientific purposes;
- Enable decisions regarding appropriate PPE (e.g., respirators or protective coveralls).

Air sampling should not substitute for workers' protection and safe work practices. Responders should be protected from overexposure regardless of monitoring and air sampling results.

#### **IV.B.1.2 Exposure Limits**

Exposure limits for responding personnel should be based on occupational exposure guidelines (see Table IV-1) such as OSHA's Permissible Exposure Limits (PEL) or applicable state standards. Exposure to the general public should not exceed the National Ambient Air Quality Standards (NAAQS).

**TABLE IV-1**

**OCCUPATIONAL EXPOSURE LIMITS AND NATIONAL AMBIENT AIR QUALITY STANDARDS FOR THE MOST SIGNIFICANT PRODUCTS OF IN SITU BURNING**

COMPOUND	OSHA PEL	ACGIH TLV	NAAQS
Benzene (in volatile organic compounds))	1 ppm (5 ppm)	0.5 ppm (2.5 ppm)	N/A
Nitrogen dioxide	(5 ppm)	3 ppm (5 ppm)	0.053 ppm annual average (0.1 ppm 1-hour average)
Sulfur dioxide	5 ppm	(0.25 ppm)	0.5 ppm 3-hour average (0.075 ppm 1-hour average)
Carbon monoxide	50 ppm	25 ppm	9 ppm 8-hour average (35 ppm 1-hour average)
Polycyclic aromatic hydrocarbons (PAH)	Not applicable	Not applicable	Not applicable
Particulate matter, 2.5-micron (PM-2.5)	Not applicable	Not applicable	0.015 mg/m <sup>3</sup> annual average (0.035 mg/m <sup>3</sup> 24-hour average)
Particulate matter, 10-micron (PM-10)	5 mg/m <sup>3</sup>	3 mg/m <sup>3</sup>	0.15 mg/m <sup>3</sup> 24 hour average

Notes:

Numbers in parentheses indicate short-term exposure limits (STEL).

ACGIH TLV American Conference of Industrial Hygienists Threshold Limit Values (1993. Threshold Limit Values for Chemical Substances and Physical Agents, 1993-1994. Cincinnati, OH).  
mg/m<sup>3</sup> milligrams per cubic meter.  
NAAQS National Ambient Air Quality Standards (U.S. GPO, 1993. 40 CFR 50.4 to 50.11).  
OSHA PEL Occupational Safety and Health Administration Permissible Exposure Limits (U.S. GPO, 1993. 29 CFR 1910.1000, Table 2).  
ppm Parts per million

#### **IV.B.1.3 When To Sample**

Sampling should be done as long as there is a potential for exposure.

#### **IV.B.1.4 Sampling Methods**

Industrial hygiene equipment and methods may be used. This may include personal sampling pumps, passive dosimeters, and real-time instruments. In general, the sampling should:

- Follow sound industrial hygiene practices and procedures, including taking blank samples, proper sample packaging, etc.;
- Include a combination of area sampling (e.g., instruments placed on boom-towing boats) and personal sampling on the workers themselves;
- Include both short-term peak exposure and time-weighted averages, for the total duration of exposure;
- Be done for all substances of concern, making VOCs and particulates the top priority;

- Determine background levels before and after the burn; and
- Avoid erroneous readings caused by sources of smoke or fuel on the vessels (e.g., exhaust fumes or fuel vapors).

#### **IV.B.1.5 Protection**

Responders should use safe operating procedures such as staying upwind of the burn and the slick as much as possible and keeping safe distances from the fire. Responders should use respiratory protection and protective clothing as needed. It should be emphasized that safety risks such as heat and cold stress, falling overboard, or vessel collisions are just as real as chemical exposure, and more acutely dangerous. Responders should receive safety training that should include description of the hazards involved, precautions to be taken, and proper use of safety equipment.

#### **IV.B.2 MONITORING FOR GENERAL PUBLIC**

The general public usually includes people of all ages. It also includes individuals with allergies and with respiratory, cardiovascular, and other diseases. The vulnerability of these individuals to combustion by-products may be much greater than posed to the responders. The distance between the general public and the burning site may vary greatly, depending on the specifics of the burn. The operational guidelines suggest 6 miles when the wind blows toward shore. However, burns may be conducted closer than 6 miles if conditions permit. Similarly, a burn may be inappropriate at 6 miles or a greater distance, if conditions are unfavorable.

Several miles downwind of the burn, levels of vapors evaporating from the slick and gaseous by-products of the fire are expected to be near background levels. Particulate level is the main concern. Based on data from experimental burns and from computer models, the level of total particulates in the center of the plume 3 miles downwind of the burn is expected to be around 150 milligrams per meter ( $\text{mg}/\text{m}^3$ ) (McGrattan et al. 1993). If the burning is conducted according to the operational guidelines suggested above, PM-10 levels 6 miles away from the burn should be significantly lower than  $150 \text{ mg}/\text{m}^3$  in the center of the plume, and much lower than that at ground level. Concentrations at any one location will depend on specific atmospheric conditions at the time of the burn.

#### **IV.B.2.1 Visual Observations**

Visual observations should be conducted to track plume direction and height, and to verify that the smoke behaves as predicted by the weather reports. Observations from ships and aircraft should continue as long as the burning takes place.

#### **IV.B.2.2 Monitoring Considerations**

There are legitimate concerns about exposure to the smoke plume by the general public and environment. In order to make decisions concerning the continuation of an ISB, it is advisable to collect information concerning concentrations PM-10 or smaller PM in smoke or PM-2.5 or finer particles in smoke. Monitoring should be established when there is reason to believe that the weather conditions and/or location of the burn could produce a situation in which the general public or sensitive environments could be affected by fallout from the smoke plume. Depending on circumstances, the burn may be monitored by qualitative assessment (i.e., visual observation) and/or by quantitative methods that employ air monitoring and sampling.

#### **IV.B.2.3 Exposure Limits**

Exposure limits for the general public should be based on the National Ambient Air Quality Standards, which are used by EPA for air quality control. The standards for PM-10 and PM-2.5 are shown in Table IV-1. To err on the side of safety, this Region 7 policy adopts an action level of 150 mg/m<sup>3</sup>, averaged over 1 hour. Concentrations above this level should result in operational measures to control the rate of burn/smoke formation.

#### **IV.B.2.4 Sampling Limitations**

In general, air sampling should not be regarded as a requirement for conducting ISB but as an option if the situation warrants. Sampling should not be used as the means to determine whether the public is adequately protected: the public should be protected regardless of air sampling. We believe that such protection may be achieved by adhering to operational guidelines. Sampling, however, may be valuable by providing feedback information to the FOOSC, by increasing the comfort level of both those conducting the burn and those potentially exposed to it, and by collecting data that may be of value for future ISB. Trends are more important than a single number. The readings of a real-time particulate monitor may fluctuate widely, depending

on nearby activities such as passing cars or smoke from fireplaces in nearby houses. Therefore, a single reading may be misleading. Averaging the readings over a period of time (e.g., 15 minutes) should provide an indication of the trend, that is, whether the concentration goes up or remains steady. Visual observations, coupled with real-time data that should be useful in ascertaining the effect of the burn on exposure of the general population to particulates.

It is also important to state clearly the limitations and shortcomings of sampling data. These data should be interpreted correctly, and the concentrations should be presented with the associated uncertainty and possible interferences and inaccuracies. Otherwise, the values may not mean much, or worse yet, be misleading.

#### **IV.B.2.5 Sampling Rationale**

Sampling may be conducted for several reasons:

- To assess exposure levels at different points, in order to provide immediate feedback to the FOSC, and to verify visual observations of plume behavior;
- To validate air dispersion models;
- To satisfy other scientific or historical data collection needs.

Based on previous experience, the concentration of gases in the plume would likely drop to below the exposure limit within several hundred yards of the burn. However, particulate concentrations in the center of the plume may remain above the level of concern for several miles downwind. Sampling particulates should therefore be the main effort.

#### **IV.B.2.6 When To Sample**

Sampling is an option that may be exercised anytime during the burn. It may be desirable when there is a potential for exposure (even if contaminant levels are expected to be below exposure limits). Therefore, sampling may be done when the plume drifts over a populated area, over natural resources, or for scientific data collection, at various locations downwind of the burning site. Since the purpose of this sampling is to monitor ISB effects on sensitive populations, there is no need to require it when there is no reason to believe that a sensitive population will be affected. If the smoke plume is expected to be carried away from population centers or sensitive areas, sampling should not be required.



#### **IV.B.2.7 Sampling Equipment**

Sampling equipment should be:

- Portable, easily deployable, and available when needed;
- Sensitive, accurate, and precise enough to provide meaningful data;
- If possible, provide real-time readings for immediate feedback, and have the capability to log readings over several hours, to get the average concentration over an extended period of time.

Real-time particulate samplers are commercially available from several manufacturers.

In addition, sampling pumps with attached filter cassettes may be deployed at various locations for laboratory analysis. Their data, which are not real-time, may be used for exposure assessment, model validation, and to provide information for future ISB.

#### **IV.B.2.8 Recommended Air Monitoring Equipment for ISB**

The primary health concern for ISB is the evolution of particulates from the burning of crude oil, fuel products, or other hydrocarbons. Secondly, within the first several hours of the burn, the generation of VOCs and PAHs could be additional health and safety concerns in the immediate area. Air monitoring is an important tool in communicating risks to the public during an emergency response. If it is determined that a burn will be conducted and there is risk of exposure to a human population center, then air monitoring should be completed.

The Responsible Party (RP) may conduct air monitoring in conjunction with a burn, either independently or with government oversight. The air monitoring results should be immediately reviewed and assessed to determine the burn effectiveness and to address any public health concerns.

The EPA Region 7 Emergency Response Program and its contractors, along with the U.S. EPA Environmental Response Teams (ERT) and U.S. Coast Guard (USCG) Strike Teams, are often called in emergencies to conduct perimeter and on-scene air monitoring. The U.S. EPA Regional Offices maintain a 24-hour readiness, along with contractor support, to provide air monitoring equipment at an emergency response. Equipment arrival time would depend on the mobilization time to the scene from the Regional Office or EPA satellite office. For a spill on the upper Mississippi River this would translate to 3 to 10 hours. The FOSC can mobilize

additional air monitoring resources from ERT or from the USCG Strike Teams. The State Emergency Response Coordinator or local HAZMAT team can also mobilize air monitoring resources during an emergency.

The ERTs in Edison, New Jersey and in Las Vegas, Nevada, are on call 24 hours per day and are equipped and specialized to support FOSCs in conducting air monitoring. The ERT can mobilize to the site within 12 to 24 hours after being requested by a FOSC to support air monitoring activities. The USCG Strike Teams also are equipped and trained to provide air monitoring, safety monitoring, and other assistance to the FOSC as needed. The Strike Teams can mobilize to a site in 12 to 24 hours to provide air monitoring assistance.

During an incident when ISB is being evaluated, and humans could be exposed to the smoke plume, it is recommended that the Incident Commander plan to have air monitoring set up prior to and during the burn event. EPA and its contractors could immediately mobilize staff and equipment to monitor for particulates using Real-time Aerosol Monitors (RAM). In addition, carbon monoxide, carbon dioxide, and VOCs could be monitored directly at the burn location. EPA Region 7 office and its contractors maintain air monitoring equipment to support these operations.

It is recommended that direct-reading instrumentation be used to monitor the effectiveness and potential health concerns during a burn. The data should be evaluated, assessed, and communicated to the workers and to the public as soon as the results become available. RAMs, Mini RAMs, or equivalent, can serve as valuable tools to assess the levels of particulates in a plume that could impact humans during an ISB. These instruments can be fitted with size-selection attachments to obtain readings for PM-10 or PM-2.5, if desired. The current guidelines for safe levels of particulates are a PM-10 or PM-2.5 concentration of less than 150  $\mu\text{g}/\text{m}^3$ . Further Clean Air Act amendments may change the particulate matter (PM-10 and PM-2.5) standards. The RAM and Mini RAM instruments directly read a measure of the airborne particulates. The instruments can be used to screen residential and work areas during an ISB, so that risk to the public and on-site workers may be assessed. The RAMs and Mini RAMs have been used successfully at tire fires, train derailments involving flaring of hydrocarbons, and other chemical fires where an observable plume is seen.

In addition to the above instruments, EPA also could mobilize photoionization detectors, flame ionization detectors, multi-gas meters, colorimetric tubes, fixed sampling pumps, and portable gas chromatographs to monitor contaminants, including VOCs, PAHs, particulates, carbon monoxide, and carbon dioxide during an ISB.

The air monitoring equipment described in the following table can be mobilized to an emergency by calling the EPA Regional Office or the National Response Center.

U.S. EPA Region 7 (24-hour Spill Line)	(913) 281-0991
National Response Center*	(800) 242-8802

\* Staffed by USCG, and can tie into EPA Regional Office or USCG Office

The State Emergency Response Program or local HAZMAT team can also mobilize air monitoring equipment to the scene. Both can be contacted through the State Emergency Response telephone numbers found in the Notification Section of the Region 7 Integrated Contingency Plan.

Another resource for air monitoring equipment can be vendors, such as industrial hygiene subcontractors, who rent air monitoring equipment. These vendors can make equipment available within 24 hours of an incident.

The National Oceanic and Atmospheric Administration (NOAA) Scientific Support Team can also provide air monitoring resources from its field office at Louisiana State University. District 8 Scientific Support Coordinators (SSC) are located at:

NOAA SSC and NOAA Regional Response Officer  
Prevention, USCG 8th District (DP-SSC)  
500 Poydras Street, Suite 1341  
New Orleans, Louisiana 70130  
Office Phone: (504) 376-3213

NOAA SSC, USCG Sector Houston-Galveston  
13411 Hillard Street  
Houston, Texas 77034  
Office Phone: (206) 549-7819

NOAA SSC, NOAA Disaster Response Center  
7344 Zeigler Blvd  
Mobile, Alabama 36608  
Office Phone: (206) 549-7759

Table IV-2 shows EPA's current inventory of air monitoring capabilities for ISB in Region 7.

**TABLE IV-2**  
**EPA REGION 7 AIR-MONITORING CAPABILITIES FOR ISB**

Item Description / Manufacturer / Model	Type	Target Compound(s)	EPA TLC	Fenton FO
AreaRae / Rae Systems / PGM-6560D	Multi-Gas Detector w/ PID	VOCs, LEL, CO, H <sub>2</sub> S, and O <sub>2</sub>	8	4
AreaRae / Rae Systems / PGM-5020	Multi-Gas Detector w/ PID	VOCs, LEL, CO, NH <sub>3</sub> , and O <sub>2</sub> ; gamma radiation	4	0
UltraRae 3000 / Rae Systems / PGM-7360	PID	VOCs, Benzene, Butadiene	5	1
Single Gas Monitor- Hydrogen Sulfide / Rae Systems / ToxiRae 2 PGM-1120	Single-Gas Detector	H <sub>2</sub> S	6	0
ToxiRae Pro / Rae Systems / PGM-1860	Single-Gas Detector	CO	5	0
Hydrochloric Acid Monitor / Draeger Safety / X-AM 5100	Single-Gas Detector	HCl (gas)	2	0
Single Gas Monitor - Phosphine / Rae Systems / ToxiRae 2 PGM-1192	Single-Gas Detector	Phosphine	2	0
Single Gas Monitor- Sulfur Dioxide / Rae Systems / ToxiRae 2 PGM-1130	Single-Gas Detector	SO <sub>2</sub>	1	0
Chip Measurement System / Draeger Safety	Gas-Specific Monitor	H <sub>2</sub> S, CO, CO <sub>2</sub> , TPH, SO <sub>2</sub> , HCN, Cl <sub>2</sub> , benzene, toluene, xylenes, and other analytes	2	1
Portable Chemcassette Tape Gas Detector / Honeywell / SPMF-P1US SPM Flex	Gas-Specific Detectors	Organic and Inorganic Gases	1	1
MultiRae Pro / Rae Systems / PGM-6248	Multi-Gas Detector w/ PID	VOC (ppb), LEL, CO, H <sub>2</sub> S, and O <sub>2</sub> ; gamma radiation	4	2
Multi-gas PID / Draeger Safety / X-AM-7000	Multi-Gas Detector w/ PID	VOCs, LEL, CO, H <sub>2</sub> S, and O <sub>2</sub>	2	0
Multi-gas Detector/ Rae Systems / PGM-50-5P	Multi-Gas Detector w/ PID	VOCs, LEL, CO, H <sub>2</sub> S, and O <sub>2</sub>	2	2
Photoionization Detector ppbRae / Rae Systems / PGM-7240	PID	VOCs (ppb)	1	1
Analyzer, Toxic Vapor / Thermo Environmental Instruments / TVA 2020	PID and FID	Organic and Inorganic Gases	2	1
Handheld Dusttrak / TSI Inc. / 8534	Air Sampling	PM1, PM2.5, PM10 and Total PM Fractions	2	1
Dusttrak DRX / TSI Inc. / 8533 EP	Air Sampling	PM1, PM2.5, PM10 and Total PM Fractions	3	3

**TABLE IV-2**

**EPA REGION 7 AIR-MONITORING CAPABILITIES FOR ISB**

Item Description / Manufacturer / Model	Type	Target Compound(s)	EPA TLC	Fenton FO
Air Sampler / RADECO / H-810	Air Sampling	Total suspended PM	4	0
Air Sampler, High Volume (polyurethane foam [PUF]) / General Metal Works / Ps1-Hi-Vol	Air Sampling	PM, SVOCs, PAHs, dioxins, furans	13	0
Air Sampling, Pump / Environmental Monitoring Systems / Mega-lite High Vol Pump	Air Sampling	PM, metals, SVOCs/PAHs, and other analytes	9	0
Air Sampler, High Volume, Mass Flow (total suspended particulates [TSP]) / Thermo Scientific / GS2313-105 TSP	Air Sampling	Total suspended PM	6	0
Air Sampler, High Volume—Volumetric (TSP) Thermo Scientific / TSP Vari-Flo-GV2360-70-105	Air Sampling	Total suspended PM	6	0
Air Sampling Pump / Sensidyne / Gil Air 5	Air Sampling	PM, SVOCs, PAHs, dioxins, furans	10	0
Air Sampling Pump – Gillian (set of 5) Sensidyne / 800-884.111.1205	Air Sampling	PM, metals, SVOCs, PAHs, and other analytes	2 Sets	0
Radiation Air Monitor / Canberra / 00-6828	Radioactive Particles	Alpha and Beta Radiation	1	0
Thermal Imaging Camera / MSA Systems, Inc. / EVO 5000	Thermal Screening	N/A	1	0
Weather Station, Wireless / WeatherHawk / WXT520	Weather	N/A	1	1

**Notes:**

Cl <sub>2</sub>	Chlorine	PAH	Polycyclic aromatic hydrocarbon
CO	Carbon monoxide	PID	Photoionization detector
CO <sub>2</sub>	Carbon dioxide	PM	Particulate matter
EPA	U.S. Environmental Protection Agency	PM <sub>1</sub>	PM less than 1 micron in diameter
FID	Flame ionization detector	PM <sub>2.5</sub>	PM less than 2.5 microns in diameter
FO	Field Office	PM <sub>10</sub>	PM less than 10 microns in diameter
HCl	Hydrochloric Acid	ppb	Parts per billion
HCN	Hydrogen cyanide	SO <sub>2</sub>	Sulfur dioxide
H <sub>2</sub> S	Hydrogen sulfide	SVOC	Semi-volatile organic compound
LEL	Lower explosive limit	TPH	Total petroleum hydrocarbons
N/A	Not applicable	TLC	Training and Logistics Center
NH <sub>3</sub>	Ammonia	VOC	Volatile organic compound
O <sub>2</sub>	Oxygen		

#### **IV.B.2.9 Sampling Locations**

Sampling locations should be based on priority concerns, with the first priority given to population centers downwind of the burn. For scientific data collection, for example, model validation, it is recommended that samplers be placed at different distances from the burn to collect particulate concentration data at ground level. These data would be extremely valuable for future burns.

If it is determined that sampling is needed, real-time particulate samplers (PM-10) should be positioned as follows:

- On the shoreline, at the expected centerline of the plume;
- At the population center of concern;
- In several locations in the vicinity of the population downwind of the burn.

PM-10 samplers should be operated for more than 8 hours:

- Before the burn commences to gather background data;
- During the actual burn to assess the burn effect;
- If possible, after the burn is over to collect post-burn readings.

Sampling results should be relayed to the FOSC. If it is established that the readings exceed the level of concern, the FOSC will be so advised.

#### **IV.B.2.10 Other Sampling Considerations**

- Area background readings should be taken before and after the burn to determine baseline levels.
- EPA and regional air monitoring stations may be able to assist by providing historical data, and by conducting air sampling during the burn itself (<https://www.epa.gov/outdoor-air-quality-data> and <http://airnow.gov/>)

## **APPENDIX IV.C**

### **PUBLIC NOTIFICATION FOR ISB**

Notification of the public of an impending burn is critical to the overall success of an ISB effort. The notification, coordinated through the joint information center, should focus on conveying the following messages:

- Burning is a simple, well understood, and controlled practice.
- Strict health and environmental criteria are being used in deciding whether or not to burn.
- Burning is being conducted because it presents the opportunity for greater health and environmental protection than could be achieved by other spill response methods or no response.
- Health and environmental precautions will accompany burning.
- The burn will be carried out by specially trained personnel and will be closely monitored.
- The public will be notified of each burn before or as it begins.

Public notification can be initiated through radio/TV broadcasts. If necessary, local government and state emergency service personnel with access to established public warning systems and authority to use them can facilitate this notification.

Materials to educate the public and media about burning, its risks, and tradeoffs with other countermeasures should be developed ahead of time and available for dissemination during the burn. This material should cover the trade-offs involved in choosing response countermeasures, and relate the risks of ISB to better known risks (e.g. forest fires). Distribution of this information can be through the agencies' public affairs offices prior to a spill and through a joint information center established during a spill.

A suggested public notice for ISB might look like:

At (time) on (date), a release of oil occurred at (location). Following an evaluation of the situation, local, state, and federal officials have determined that burning the oil in place is the safest and most effective way to protect the public health and environment. The burn will be conducted under controlled conditions to ensure that the fire will be a minimum threat to the public, property, or environment.

The decision to burn was made after considering strict health and environmental criteria. Officials have determined that the burning will present an opportunity for greater health and environmental protection than can be achieved by using other spill response methods, including not responding. Health and environmental precautions will accompany the burning.

The burn will be carried out by specially trained personnel and will be closely monitored. The burn will begin at approximately (time), and the public will be advised when the burn is complete. Questions should be directed to (person or organization) at (telephone number).



## **APPENDIX IV.D ECOLOGICAL CONSIDERATIONS FOR ISB**

### **IV.D.1 OPEN WATER ISB**

Potential ecological impacts of open water ISB have not been extensively discussed or studied. Conclusions are based on documented physical effects observed in the laboratory and at limited test burns.

The surface area affected by ISB is likely to be small relative to the total surface area and depth of a given body of water. This does not necessarily preclude adverse ecological impacts, particularly if rare or sensitive species use the waters in question. Organisms that may be affected by ISB include those that use the uppermost layers of the water column, those that might come into contact with residual material, and possibly some benthic (bottom dwelling) plants and animals.

### **IV.D.2 DIRECT TEMPERATURE EFFECTS**

Burning oil on the surface of the water could adversely affect those organisms at or near the interface between oil and water, although the area affected would presumably be relatively small. Observations during large-scale burns using towed containment boom did not indicate a temperature impact on surface waters. Thermocouple probes in the water during a Newfoundland burn showed no increase in water temperatures during the burn (NOBE Facts, January 1994). It appears that the length of time the burning layer resides over a given water surface may be too brief to change the temperature, due to the fact the ambient-temperature water is continually being supplied below the oil layer as the boom is towed.

### **IV.D.3 SURFACE MICROLAYER**

#### **IV.D.3.1 Role and Importance of the Surface Microlayer**

The surface of the water represents a unique ecological niche called the “surface microlayer,” which has been the subject of many recent biological and chemical studies. Although most studies of the microlayer have been conducted in the marine environment, the results can also be applied to the freshwater environment. The microlayer, variously defined but often considered to be the upper millimeter or less of the water surface, is a habitat for many sensitive life stages of aquatic organisms, including eggs and larval stages of fish and crustaceans, and reproductive

stages of other plants and animals. The microlayer also is a substrate for microorganisms and, as such, is often an area of elevated microbial population levels and metabolic activity.

#### **IV.D.3.2 Potential Effects of Burning on the Surface Microlayer**

The ecological importance of the surface microlayer and the potential impacts to it from burning activities have been discussed in the different, but related, context of ocean incineration. The Office of Technology Assessment (1986) noted in an evaluation of the technique, given the intermittent nature of ocean incineration, the relatively small size of the affected area, and the high renewal rate of the surface microlayer resulting from new growth and replenishment from adjacent areas, the long-term net loss of biomass would probably be small or non-existent.

Despite the obvious differences between shipboard incineration of hazardous wastes and surface burning of spilled oil, the above rationale is applicable to ISB. Accordingly, potential impacts to the ecologically important surface microlayer are, to some extent, offset by the presumably short-lived nature of the burn and its associated residual material.

#### **IV.D.4 ENVIRONMENTAL TOXICOLOGICAL CONSIDERATIONS**

Although many studies to define the physical and chemical characteristics that result from ISB have been performed, there has been little research on potential ecological effects. To address some of these information shortfalls, Environment Canada coordinated a series of studies to determine if ISB resulted in water column toxicity beyond that attributable to allowing the slick to remain on the surface of the water. While these studies centered on the Newfoundland ISB field trials conducted in August 1993, they also included laboratory tests to investigate potential effects in a more controlled environment.

Toxic effects were evaluated using three standard marine test organisms: sand dollars, oysters, and fish. In both the laboratory and the field experiments, sensitive toxic endpoints in these organisms were studied in the three situations of no oil, no burning; oil on water, no burning; and oil on water, burned. Results from the laboratory and field studies indicated that although toxicity increased in water samples collected below burning oil on water, this increase was generally no greater than that caused by the presence of an unburned oil slick on water. Chemical analyses performed in conjunction with the biological tests reflected low hydrocarbon

levels in the water samples. In addition to water column samples, the residues remaining after the laboratory and Newfoundland field burns were subjected to aquatic toxicity testing.

Beyond the direct impacts caused by high temperatures, the by-products of ISB may be toxicologically significant. Although analysis of water samples collected from the upper 20 centimeters (cm) of the water column immediately following a burn of crude oil yielded relatively low concentrations of total petroleum hydrocarbons (1.5 parts per million [ppm]), compounds that have low water solubility or that associate with floatable particulate material tend to concentrate at the air-water interface (EPA 1986). Strand and Andren (1980) noted that aromatic hydrocarbons in aerosols originate from combustion associated with human activities, and that these compounds accumulate in the surface microlayer until absorption and sedimentation remove them.

Burn residues could be ingested by fish, birds, mammals, and other organisms, and may also be a source for fouling of gills, feathers, and fur. However, these impacts would be expected to be much less severe than those manifested through exposure to a large, uncontained oil spill.

Contamination is likely to be local in scale affecting certain unique populations and organisms that use surface layers of the water column at certain times to spawn or feed. In crafting an effective and protective response strategy, these effects should be weighed against effects resulting from alternative actions.

## APPENDIX IV.E SAFETY AND HEALTH CONSIDERATIONS AND BY-PRODUCTS OF ISB

### IV.E.1 SAFETY OF RESPONSE PERSONNEL

The safety of personnel during both ignition and burn phases of large amounts of combustible liquids on the surface of the water presents some unique safety concerns for workers and response personnel. Many of these concerns are addressed in greater detail in operationally oriented references and include, but are not limited, to the following:

- **Fire Hazard.** Care must be taken that the burn be controlled at all times to ensure the safety of personnel and property. This precludes burning near sources such as tankers, barges, pipelines, or tank farms unless means are taken to ensure that the flames cannot propagate from the burn location to the source.
- **Ignition Hazard.** Personnel and equipment involved in ignition of the oil slick must be well coordinated. Weather and water conditions need to be kept in mind and adequate safety distances be kept at all times. Specialized ignition equipment, unknown fire behavior, and uncertain flash points introduce safety risks.
- **Vessel Safety.** Burning on waterways may involve the use of several vessels operating in close proximity, perhaps at night or in conditions of poor visibility. These conditions are hazardous by nature and generally require training and close coordination. Maneuverability while towing boom or positioning other containment equipment will require skilled personnel.
- **Training.** Training of personnel to operate equipment for ISB should be developed to minimize the risk of injury and accident. Training should meet all applicable OSHA regulations and guidelines.

Response personnel working in close proximity to the burn may be exposed to levels of gases and particulates that may require the use of PPE. Training for burn personnel should include proper use of use of PPE, which may be used to minimize inhalation of, and skin contact with, combustion by-products. Exposure limits such as OSHA's PELs are applicable to this group of typically healthy adults.

Other hazards can include the exposure of personnel to extreme heat conditions, smoke, and fumes; working under time constraints for extended periods of time. Personnel involved with burning operations must be well briefed on the plan of operations, with safety stressed, and must be notified of all changes from the approved burn plan. The need for burning must be constantly evaluated and should be reconsidered if conditions (e.g., weather, operations, equipment) pose a

threat or danger to human health and safety, or facilities. As more knowledge is gained from burning, it is most likely that additional safety concerns will be identified.

#### **IV.E.2 GENERAL PUBLIC HEALTH CONSIDERATIONS**

Burning oil produces a visible smoke plume containing smoke particulates, combustion gases, unburned hydrocarbons, residue left at the burn site, and other products of combustion. It also results in the evaporation and release of volatile compounds from the oil. Public health concerns may relate to the chemical content of the smoke plume and the downwind deposition of particulates. It should be noted that not burning an oil spill also introduces its own air quality concerns. Analysis of the physical behavior of spilled oil has shown that 50 percent of a light crude oil spill can evaporate fairly readily, and it is the acutely toxic lighter fractions of a crude oil mix that quickly move into the atmosphere.

Results of recent burn tests indicate that ISB does not yield significant emissions above that expected for similar types of combustion such as forest fires. Many human health experts feel that the most significant human health risk resulting from ISB is inhalation of fine particulate material, which is a major constituent of smoke produced. An early assessment of health concerns attributable to the Kuwaiti oil fires identified PM-10 as representing the greatest health hazard in that situation. The extent to which these particles present a health risk during an ISB depends on the concentration and duration of exposure. It is important to remember that these particulates are so small that they do not settle readily. They will be carried by the prevailing wind over large distances, over which their concentrations will rapidly decline.

PAHs are a group of hydrocarbons produced during ISB. They are found in oil and oil smoke, where their relative concentrations in the latter tend to be higher than in the oil itself. Possible carcinogenicity of some members make this group a serious health concern, although it is generally long-term exposure to the higher molecular weight PAHs that is the basis for concern. SO<sub>2</sub> and NO<sub>2</sub> are eye and respiratory tract irritants that are produced by oil combustion. Concentrations of PAHs decline downwind as smoke from the fire is diluted by clean air. The concentrations of other by-products of burning oil (i.e., combustible gases) also decline downwind.

Burning should not be allowed if downwind human populations are at risk. The downwind extent of human risk has not been empirically determined, although it is an area of very active research. There are no exposure standards for respirable particles generated by a burn that could be applied directly to determine safe downwind distances. Atmospheric dispersion models, if available for the specific area, could be utilized to help refine potential downwind exposures. If models are not available, whenever possible, a small pilot burn could be conducted before a larger burn in order to gauge the effectiveness of the ambient conditions to disperse the smoke and gasses resultant from the burned material. Because wind direction meanders under most circumstances, no population should be within a 45 degree arc to either side of the wind direction. Local wind and weather events (e.g., air stability class, lake breezes, and frontal passages) must be considered when determining downwind directions.

#### **IV.E.3 BY-PRODUCTS**

By-products of ISB exist because no combustion process is completely efficient in oxidizing a given source material. Besides the normal results of burning, CO<sub>2</sub>, water vapor, and an assortment of sulfur and nitrogen residues, a wide range of intermediate combustion products are generated. Although the exact mix of burn residues varies, by-products can be categorized into three groups: unburned oil, airborne components, and combustion residues.

## **APPENDIX IV.F**

### **OPERATIONAL CONSIDERATIONS FOR CONDUCTING ISB**

#### **IV.F.1 OPEN WATER BURNING**

An open water ISB technique most likely to be used would involve the use of boats towing fire resistant booms that could be used to contain the spilled oil and keep it from spreading. The boom, attached to the boats by towing lines, would be towed such that it forms a U shape. The open end of the U is maneuvered through the oil slick, and a “boomfull” of oil is collected. The boom is towed away from the main slick and the oil is ignited. During the burning, the boom is pulled in such a way as to slowly advance ahead to ensure that the oil is concentrated at the back end of the boom and to maintain maximum thickness. A burn can be terminated by letting the oil layer thin out by releasing one end of the boom. After the oil is consumed, the process is repeated. Other techniques may include containing oil continuously spilling from a burning oil rig, or placing fire boom around a vessel or facility that caught fire.

#### **IV.F.2 BURNING IN OTHER INLAND ENVIRONMENTS**

Although it is widely held that ISB does take place in the inland zone, little technical information exists on techniques and impacts of burning in environments other than open water. In most cases, these involve burning in ice conditions, and in wetlands and the results are varied and anecdotal.

#### **IV.F.3 BURNING IN ICE/WINTER CONDITIONS**

Containment is almost always required to maintain the minimum 2 to 3 mm thickness necessary to burn oil. Ice edges can act as natural barriers, and as long as the oil is of sufficient thickness, combustion is possible. However, wind and/or low currents may be necessary to herd the oil into sufficient thickness along the edge. Oil trapped under the ice may also accumulate in sufficient thicknesses along leads in broken ice, resulting in favorable conditions for burning. Test burns in a 1986 Esso wave basin showed burning efficiencies of up to 90 percent, where moderate winds herded the oil into long narrow leads. Burning in other lead geometries and along brash ice resulted in less efficient burns. Arctic studies have also shown it is possible to ignite and burn fresh, weathered, and emulsified oil at temperatures as low as 35°C. It is important to note that an ISB in broken ice is not easily extinguished once ignited.

Burning oil in snow conditions is similar to burning oil on water, because as the snow melts during the burn, it can form a meltwater pool upon which the oil continues to burn. Certain conditions such as wind, snow properties, and concentration of the oil in the snow all can impact the success of the burn. Burn efficiencies of 90 to 99 percent have been shown during field studies and actual spills. Oil/snow mixtures of up to 75 percent can be ignited with a diesel or gasoline soaked rag. [This section was from Detection of Oil in Ice and Burning Oil Spills in Winter Conditions, PROSCARAC, Inc., March 1992].

#### **IV.F.4 FIRE RESISTANT BOOM**

The application of ISB requires the physical collection and containment of oil to maximize the efficiency of the burning process and to provide a means to control the burn. Generally, this is accomplished by the use of a fire boom or some type of fire resistant containment. If fire boom or other fire containment device is not available, and/or the equipment to deploy the boom is unavailable or inadequate, approval for use of ISB may be denied.

#### **IV.F.5 IGNITION**

Heavy oils require longer heating times and a hotter flame to ignite compared to lighter oils. Many ignition sources can supply sufficient heat. These include pyrotechnic igniters, laser ignition systems, and aerial ignition systems. Pyrotechnic devices have been successfully used to ignite floating oil slicks under a range of environmental conditions. Disadvantages to their use are associated with safety, shelf life, availability, speed of deployment, and cost (Spiltec, 1987). Laser ignition, while a promising technique, remains experimental in nature, with drawbacks associated with difficulties in beam focusing from the air, wind effects during oil preheating, energy requirements, and cost. Aerial ignition systems using gelled gasoline dropped from helicopters appear to be a more viable technique applicable in a range of environmental conditions. Whichever method is used, considerations of safety and efficiency must enter into the decision process.

#### **IV.F.6 OIL THICKNESS**

In general, oil slicks can be effectively burned if they are consistently 2 to 3 mm thick. This number can vary with oil viscosity and degree of weathering, with more viscous and more weathered oils requiring a considerably thicker layer of oil (estimated to be nearly 10 mm).



Also, burn efficiencies increase as thickness of the slick increases. This consideration, therefore, implies that spilled oil must be contained by some means (fire resistant boom, ice, etc.) in order to prevent oil spreading and the resultant thinning of surface layers.

#### **IV.F.7 EFFECTS OF WEATHERING**

Weathered oil requires a longer ignition time and higher ignition temperatures. However, igniting weathered oil is generally not a problem with most ignition sources, because they have sufficient temperature and burn time to ignite most oils. Weathering, as it affects the ability to burn oil, is currently under study in laboratory and field experiments.

#### **IV.F.8 EFFECTS OF EMULSIFICATION**

The effect of water content on oil ignition is thought to be similar to that of weathering, in that it decreases ignitability and combustibility. However, oil containing some water can be ignited and burned. The controlling factor in the combustion of emulsions is the removal of water, which is accomplished either through boiling of the water out of the emulsion, or by breaking the emulsion thermally or chemically. The effect of emulsions on the ability to burn oil is currently under study in laboratory and field experiments.

#### **IV.F.9 UNBURNED OIL AND SOLID BURN RESIDUES**

Although ISB has the potential for removing a large proportion of the mass of an oil spill from the water surface, some of the source material will not be consumed and will remain as a concern. Similarly, combustion residues, described as stiff, taffy-like material, will remain after the burn. Provisions for the removal of these materials must be made, as the potential exists for undefined levels of shoreline impacts even with a successful burn.

Although sinking of burn residues has seldom been observed in test burns, a slight increase in density relative to the original oil has been observed. In the 1991 explosion and burning of the tanker Haven off Genoa, Italy, burn residues were thought to have sunk. Reliable estimates of the amount of oil actually burned were not possible, but the tanker was laden with 141,000 tons of Iranian heavy crude, and very little remained in the wreck following the accident and fire. It was reported that several surveys during 1991 confirmed that there was sunken oil offshore and along the coast. The sunken oil is now thought to have resulted from the extraordinary

heating of the contained product inside the cargo holds of the vessel. This oil basically underwent a crude distillation, in which lighter components were driven off and a denser, heavier-than-seawater material remained.

It should be emphasized that the circumstances specific to this situation should not be used as the basis for generalization in all burning scenarios. Items to consider include:

- Regulations concerning respiratory protection
- Regulations concerning Hazardous Waste Operations and Emergency Response (HAZWOPER)

## **ANNEX V**

# **INTER-AGENCY MEMORANDUM OF AGREEMENT REGARDING OIL SPILL PLANNING AND RESPONSE ACTIVITIES UNDER THE FEDERAL WATER POLLUTION CONTROL ACT'S NATIONAL OIL AND HAZARDOUS SUBSTANCES POLLUTION CONTINGENCY PLAN AND THE ENDANGERED SPECIES ACT**

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**Inter-agency Memorandum of Agreement Regarding Oil Spill Planning and  
Response Activities Under the Federal Water Pollution Control Act's  
National Oil and Hazardous Substances Pollution Contingency Plan and the  
Endangered Species Act**

**I. INTRODUCTION**

- A. Parties. The Parties to this agreement are the U.S. Coast Guard (USCG), the U.S. Environmental Protection Agency (USEPA), the Department of the Interior (DOI) Office of Environmental Policy and Compliance, the U.S. Fish and Wildlife Service (USFWS), and the National Oceanic and Atmospheric Administration's (NOAA's) - National Marine Fisheries Service (NMFS) and National Ocean Service (NOS).
- B. The Parties have conducted a review of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and associated oil spill response activities to coordinate their actions under Section 1321(d) of the Clean Water Act and Section 7(a)(1) of the Endangered Species Act, as amended (16 U.S.C. 1531 *et seq.*) (ESA). Section 1321(d) of the Clean Water Act establishes the NCP and assigns responsibilities to Federal agencies in mitigating damage from oil and hazardous materials spills, including the conservation of fish and wildlife. Section 7(a)(1) of the ESA requires all Federal agencies, in consultation with and with the assistance of the Secretaries of the Interior or Commerce, as appropriate, to review their programs and utilize their authorities in furtherance of the purposes of the ESA by carrying out programs for the conservation of listed species. As a result of this review, recommended procedures have been developed that will achieve better conservation of listed species and critical habitat during implementation of oil spill response activities.
- C. This agreement provides a general framework for cooperation and participation among the Parties in the exercise of their oil spill planning and response responsibilities. Following the recommended procedures presented in this agreement will better provide for the conservation of listed species, improve the oil spill planning and response procedures delineated in the NCP, and ultimately streamline the process required by Section 7(a)(2) of the ESA.

**II. PURPOSE**

- A. This agreement is intended to be used at the area committee level primarily to identify and incorporate plans and procedures to protect listed species and designated critical habitat during spill planning and response activities. Proactive regional planning may also take into consideration concerns for proposed and candidate species, as well as listed species' habitat not yet designated as critical.<sup>1</sup>

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<sup>1</sup> Adverse effects on non-designated critical habitat used by listed species has a potential for having an adverse affect on these listed species. Therefore, planners should consider these areas if information is available.

- B. This agreement coordinates the consultation requirements specified in the ESA regulations, 50 CFR 402, with the pollution response responsibilities outlined in the NCP, 40 CFR 300. It addresses three areas of oil spill response activities: pre-spill planning activities, spill response event activities, and post-spill activities. The agreement identifies the roles and responsibilities of each agency under each activity. By working proactively before a spill to identify potential effects of oil spill response activities on listed species and critical habitat, and jointly developing response plans and countermeasures (response strategies) to minimize or avoid adverse effects, impacts to listed species and critical habitat should be reduced or avoided completely. Should a spill occur, response plans and countermeasures will be used to implement response actions to minimize damage from oil discharges in a manner that reduces or eliminates impacts to listed species and critical habitat. In the event that oil spill response actions may result in effects on listed species or critical habitat, the agreement provides guidance on how to conduct emergency consultation under the ESA. It also describes the steps for completing formal consultation, if necessary, after the case is closed, if listed species or critical habitat have been adversely affected.
- C. The goal of this agreement is to engage in informal consultation wherever possible during planning and response. With adequate planning and ongoing, active involvement by all participants, impacts to listed species and critical habitat and the resulting need to conduct subsequent ESA Section 7(a)(2) consultations will be minimized or obviated.

### **III. LEGAL AUTHORITIES**

- A. The Federal Water Pollution Control Act (FWPCA), 33 U.S.C. § 1321., requires that when a spill occurs, the President take such action as necessary to ensure effective and immediate removal of a discharge, and mitigation or prevention of a substantial risk of a discharge of oil into the waters of the United States. The National Contingency Plan (NCP), 40 CFR Part 300, prepared in accordance with the FWPCA, assigns duties to Federal agencies to protect the public health and welfare, including fish, wildlife, natural resources and the public. The NCP designates the Federal On Scene Coordinator (FOSC) as the person responsible for coordinating an oil spill response. (The abbreviation OSC is used in the NCP, while the abbreviation for Federal On Scene Coordinator is FOSC in this agreement.) Nothing in this agreement limits the authority of the Federal On Scene Coordinator as defined in the NCP.
- B. The Endangered Species Act of 1973 (ESA), as amended, 16 U.S.C. §1531 et seq., provides a means to protect threatened and endangered species and the ecosystems upon which they depend. The ESA requires that Federal agencies insure that the actions they authorize, fund, or carry out do not jeopardize listed species or adversely modify their designated critical habitat. Regulations for conducting Section 7 consultation are set forth in 50 CFR Part 402.

#### IV. DEFINITIONS

The following definitions apply to this agreement and are taken from the definitions contained in either the NCP or the March 1998 USFWS & NMFS Endangered Species Consultation Handbook. For definitions of terms not listed below, refer to the USFWS & NMFS Endangered Species Consultation Handbook and the NCP as appropriate.

*Area Committee* - the entity appointed by the President consisting of members from qualified personnel of Federal, state, and local agencies with responsibilities that include preparing an area contingency plan for an area designated by the President. The chairs of the Area Committee are the USCG for coastal and Great Lakes plans, and the USEPA for inland plans. In some instances the Regional Response Team (RRT) may act as the Area Committee. In this MOA, the term Area Committee also includes the RRT acting as the Area Committee.

*Area Contingency Plan (ACP)* - the plan prepared by an Area Committee (or the RRT acting as the Area Committee) that is developed to be implemented in conjunction with the NCP and Regional Contingency Plan (RCP), in part to address removal of a worst case discharge and to mitigate or prevent a substantial threat of such a discharge from a vessel, offshore facility, or onshore facility operating in or near an area designated by the President. A detailed annex containing a Fish and Wildlife and Sensitive Environments Plan prepared in consultation with the USFWS, NOAA, and other interested natural resource management agencies should be incorporated into each ACP. In this MOA, the term ACP also includes sub-area ACP's, sub-area contingency plans, geographic response plans and geographic response strategies as per 40 CFR 300.210.

*Biological Assessment* - information prepared by or under the direction of the Federal action agency (USCG or USEPA) regarding: 1) listed and proposed species and designated critical habitat that may be affected by proposed actions; and, (2) the evaluation of potential effects of the proposed actions on such species and habitat.

*Biological Opinion* - document which includes: (1) the opinion of the USFWS or NMFS as to whether or not a Federal action is likely to jeopardize the continued existence of listed species, or result in the destruction or adverse modification of designated critical habitat; (2) a summary of the information on which the opinion is based; and (3) a detailed discussion of the effects of the action on listed species or designated critical habitat. This document will also contain an incidental take statement, that, if appropriate, exempts the Federal actions from the ESA Section 9 take prohibitions.

*Candidate species* – plant and animal taxa considered for possible addition to the List of Threatened and Endangered Species.

*Case is Closed* – When removal operations are complete in accordance with 40 CFR 300.320(b).

*Critical habitat* - areas designated by the USFWS and NMFS pursuant to Section 4 of the ESA for the purposes of identifying areas essential for the conservation of a threatened or endangered species and which may require special management considerations.

*Emergency Consultation* – an expedited consultation process that takes place during an emergency (natural disaster or other calamity) (50 CFR 402.05). The Services have determined that oil spill response activities qualify as an emergency action. The consultation may be initiated informally. The emergency continues to exist until the removal operations are completed and the case is closed in accordance with 40 CFR 300.320(b). The FOSC will continue to conduct emergency consultations, if needed, until the emergency is over and the case is closed. Formal, or informal, consultation is initiated after the emergency is over, at which time the USFWS and/or NMFS evaluates the nature of the emergency actions, the justification for the expedited consultation, and any impacts to listed species and their habitats.

*Federal On Scene Coordinator (FOSC)* - the Federal official predesignated by USEPA or the USCG to coordinate and direct responses under the FWPCA as defined in the NCP.

*Formal Consultation*<sup>2</sup> - a process between USFWS or NMFS and the Federal action agency (USCG or USEPA) that: (1) determines whether a proposed Federal action is likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat; (2) begins with a Federal agency's written request and submission of a complete Section 7 consultation initiation package; and (3) concludes with the issuance of a biological opinion and incidental take statement, as appropriate, by either of the Services. If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Services concur, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat. See informal consultation).

*Incidental Take* - take of listed fish or wildlife species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by a Federal agency or applicant.

*Informal Consultation* - an optional process that includes all discussions and correspondence between the USFWS or NMFS and the Federal agency (USCG or USEPA) or designated non-Federal representative, prior to formal consultation, to determine whether a proposed Federal action may affect listed species or critical habitat. This process allows the Federal agency to utilize the Services' expertise to evaluate the agency's assessment of potential effects or to suggest possible modifications to the proposed action, which could avoid potential adverse effects. If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Services concur, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat).

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<sup>2</sup> Formal consultation can occur during planning or after the conclusion of emergency consultation if listed species or critical habitat have been affected.



*Listed Species* – for the purposes of this MOA, any species of fish, wildlife or plant, which has been determined to be endangered or threatened under Section 4 of the ESA.

*National Contingency Plan (NCP)* – National Oil and Hazardous Substances Pollution Contingency Plan. The NCP is a national plan that provides the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants and contaminants. The NCP is set forth in 40 CFR 300.

*National Response Team (NRT)* - a national team, defined under the NCP, responsible for national planning, policy, and coordination for hazardous substance and oil spill preparedness and response, consisting of representatives from agencies named in 40 CFR 300.175(b).

*Regional Response Team (RRT)* - a regional team of agency representatives that acts in two modes: the standing RRT and incident specific RRT. The Co-chairs are the USCG and USEPA. The standing team is comprised of designated representatives from each participating Federal agency, state governments and local governments (as agreed upon by the states). Incident-specific teams are formed from the standing team when activated for a response. The role of the standing RRT includes establishing regional communications and procedures, planning, coordination, training, evaluation, preparedness and related matters on a region-wide basis. It also includes assisting Area Committees in coordinating these functions in areas within their specific regions. The role and composition of the incident-specific team is determined by the operational requirements of the response. During an incident, it is chaired by the agency providing the FOSC.

*Services* – Term used to refer to both the USFWS and NMFS.

## **V. PROCEDURES**

Oil spill planning and response procedures are set forth in the NCP. This agreement is intended to facilitate compliance with the ESA without degrading the quality of the response conducted by the FOSC, to improve the oil spill planning and response process, and ensure continued inter-agency cooperation to protect, where possible, listed species and critical habitat.

### **A. PRE-SPILL PLANNING**

- (1) While drafting Area Contingency Plans themselves may not result in effects to listed species, actions implemented under the plans may. It is essential that the Area Committee engage USFWS and NMFS during the ACP planning process while developing or modifying the ACP and response strategies. This informal consultation can be used to determine the presence of listed species or critical habitat, and the effects of countermeasures, and to ensure that measures to reduce or avoid impacts to listed species and critical habitats during oil spill response activities are developed. By consulting on the anticipated effects prior to implementing response actions, decisions can be made rapidly during the spill, harm from response actions can be

minimized, and implementation of response strategies specifically designed to protect listed species and critical habitat can be achieved.

- (2) The pre-spill planning process is shown as a flow chart in Appendix A. The Area Committee Chair will request, in writing, that endangered species expertise and a species list be provided by the Services.<sup>3</sup> The request should also describe the area and include a general description of the countermeasures being considered and the planning process to be used (e.g., a workgroup). In order to document the request for consultation and planning involvement, the request shall be sent to both NOAA and USFWS. To obtain NMFS assistance, a request should be sent to the Department of Commerce (DOC) RRT representative, with a copy to the NOAA Scientific Support Coordinator (SSC) and the NMFS Regional Field Office. For USFWS support, a request should be sent to the local USFWS field office(s), with a copy to the USFWS Regional Response Coordinator (RRC) at the appropriate USFWS Regional Office(s) and the DOI RRT representative. It is the responsibility of the USFWS RRC, acting through the Ecological Services Assistant Regional Director, and the NOAA SSC to act as a liaison between the respective Service and the Area Committee. USFWS and NMFS will orally respond to the request within 30 days of receipt and provide a written response within 60 days. The response should include designation of a listed species expert to assist the Area Committee.
- (3) If listed species or critical habitat are present in the planning area being considered the Area Committee should use a planning process that ensures engagement of Service experts.<sup>4</sup> This process shall ensure that the appropriate participants jointly gather and analyze the information needed to complete the Planning Template in Appendix C. This planning process constitutes informal consultation.<sup>5</sup> The goals of this planning process are to identify the potential for oil spill response activities to adversely affect listed species and critical habitat and to identify for inclusion in the ACP information on sensitive areas, emergency response notification contacts, and any other information needed. Methods should be developed to minimize identified adverse effects and, where necessary, the plan should be modified accordingly. If specific sources of potential adverse effects are identified and removed, the Services will provide a concurrence letter and Section 7(a)(2) requirements will be deemed to have been met.<sup>6</sup>
- (4) If, after the process in Appendix C has been followed, it cannot be determined that adverse effects will not occur during a response action, the USCG or USEPA, as appropriate, will initiate formal consultation using the information gathered in Appendix C; this information will be used by the Services to complete formal

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<sup>3</sup> 40 CFR 300.170(a).

<sup>4</sup> Process options include using an informal workgroup; formal workgroup, Environmental Risk Assessment process, or other process based on Area Committee needs.

<sup>5</sup> This process does not negate any regional consultations that have already occurred, nor alter the strategies/procedures in the ACP until the ACP is officially modified in consultation with USFWS or NMFS.

<sup>6</sup> Letter is required for the administrative record. See Appendix E.

consultation.<sup>7</sup> This will be a programmatic consultation that generally addresses oil spill response activities at issue in the plan area. At times when specific information is available about certain oil spill response methods and listed species and critical habitat, it may be possible to pre-approve particular activities that may be implemented in the event there is insufficient time to initiate emergency consultation before the need to take action.<sup>8</sup>

- (5) All parties recognize that development and modification of the ACP is an ongoing process. Changes, including modifications to response actions or changes to the species list, should be addressed regularly through a dynamic planning process. The Services should contact the Area Committee or workgroup if they become aware of newly listed species that may be affected by planned response activities. The Area Committee should likewise notify the Services of changes to planned response activities. The Area Committee or workgroup should evaluate any changes and assess the need for additional consultation as needed.

## **B. OIL SPILL RESPONSE**

During an oil spill event which may affect listed species and/or critical habitat, emergency consultations under the ESA are implemented (50 CFR 402.05) for oil spill response actions.<sup>9</sup> Emergency consultation may be conducted informally through the procedures that follow (See Appendix A). Emergency consultation procedures allow the FOSC to incorporate listed species concerns into response actions during an emergency. “Response” is defined in this agreement as the actions taken by the FOSC in accordance with the NCP. The FOSC conducts response operations in accordance with the NCP and agreement established in the ACP.

- (1) As per the NCP and ACP, the FOSC will notify the RRT representatives of DOI and DOC through the established notification process regardless of whether listed species or critical habitat is present. Upon notification, the DOC and DOI representatives shall contact the NOAA SSC and RRC, respectively, and other appropriate Service contacts as provided in internal DOC or DOI plans, guidance, or other documents. If established in the ACP, the FOSC may also contact the Service regional or field offices directly (see Section V(A)(3) above). If listed species and/or critical habitat are present or could be present, the FOSC shall initiate emergency consultation by contacting the Services. The NOAA SSC and RRC shall coordinate appropriate listed species expertise. This may require timely on-scene expertise from the Services’ local field offices. These Service representatives may, as appropriate, be asked by the FOSC to participate within the FOSC’s Incident Command System and provide information to the FOSC.<sup>10</sup>

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<sup>7</sup> Letter is required for the administrative record. See Appendix E.

<sup>8</sup> Due to time constraints associated with spill response, this does not mean that immediate spill response actions cannot occur to meet the requirements of 40 CFR 300.317. However, planning should address specific procedures for initiating emergency consultation for activities that are pre-approved and for those that have not been pre-approved.

<sup>9</sup> Based on pre-spill planning or discovered during the response.

<sup>10</sup> 40 CFR 300.175(b)(7) & (b)(9); 40 CFR 300.305(e).

- (2) The ACP, including any agreed upon references cited in the ACP, should form the basis for immediate information on response actions. As part of emergency consultation, the Services shall provide the FOSC with any timely recommendations to avoid and/or minimize impacts to listed species and critical habitat.<sup>11</sup> The NOAA SSC should also be involved in these communications as appropriate. If incidental take is anticipated, and if no means of reducing or avoiding this take are apparent, the FOSC should also be advised and the incidental take documented. If available, the FOSC should consider this information in conjunction with the national response priorities established in the NCP.<sup>12</sup> The FOSC makes the final determination of appropriate actions.
- (3) It is the responsibility of both the FOSC and the Services' listed species representatives to maintain a record of written and oral communications during the oil spill response. The checklist contained in Appendix B is information required to initiate a formal consultation in those instances where listed species and/or critical habitat have been adversely affected by response actions.<sup>13</sup> If it is anticipated that listed species and/or critical habitat may be affected, the FOSC may request that the USFWS and/or NMFS representative to the Incident Command System oversee and be responsible for the gathering of the required information in Appendix B while the response is still ongoing.<sup>14</sup> The FOSC may also choose to designate another individual to be responsible for collecting the information.<sup>15</sup> Although in some instances the drafting of information for Appendix B may be completed after field removal operations have ceased, it is anticipated that collection of the information should be complete before the case is officially closed and that no further studies will be necessary.
- (4) It is the responsibility of the FOSC to notify the Services' representatives in the Incident Command System of changes in response operations due to weather, extended operations, or some other circumstance. It is the responsibility of the Services to notify the FOSC of seasonal variances (e.g., bird migration), or other natural occurrences affecting the resource. If there is no Service representative in the Incident Command System, the FOSC will ensure that the NOAA SSC and/or DOI representative to the RRT remains apprised of the situation. The Services will continue to offer recommendations, taking into account any changes, to avoid jeopardizing the continued existence of listed species or adversely modifying critical habitat, and to minimize the take of listed species associated with spill response activities.

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<sup>11</sup> See Section 8.1 of the USFWS & NMFS Endangered Species Consultation Handbook (<http://endangered.fws.gov/consultations/s7hndbk/s7hndbk.htm>).

<sup>12</sup> 40 CFR 300.317 National Response Priorities.

<sup>13</sup> See Section 8.2(B) of the USFWS & NMFS Endangered Species Consultation Handbook.

<sup>14</sup> If requested by the FOSC, the NOAA Scientific Support Coordinator (SSC) may coordinate this data collection.

<sup>15</sup> See Appendix D for example Pollution Removal Funding Authorization (PRFA) Statement of Work language.

### **C. POST RESPONSE**

If listed species or critical habitat have been adversely affected by oil spill response activities, a formal consultation is required, as appropriate.<sup>16</sup> Informal emergency consultation shall remain active until the case is closed. The FOSC will initiate consultation on the effect of oil spill response activities (not the spill itself) after the case is closed. Every effort shall be made to ensure that relevant information generated as part of the consultation process is made available for use in the Natural Resource Damage Assessment (NRDA) process. (Note: NRDA activities are separate from this consultation.)

- (1) After the FOSC determines that removal operations are complete in accordance with 40 CFR 300.320(b), the impacts of the response activities on listed species and critical habitat will be jointly evaluated by the FOSC and the Services.
- (2) If listed species or critical habitat were adversely affected by oil spill response activities, the FOSC will follow the procedural requirements of 50 CFR 402.05(b) (see Appendix A). The document developed by following Appendix B, information required to initiate a formal consultation following an emergency, should be included with a cover letter to the Services requesting consultation and signed by the FOSC. The FOSC will work with the Services and the NOAA SSC, as appropriate, to ensure that Appendix B is complete.<sup>17</sup> This document comprises the FOSC's formal request for consultation.
- (3) The Services normally issue a biological opinion within 135 days of receipt of the Section 7 consultation request (50 CFR 402.14). When a longer period is necessary, and all agencies agree, the consultation period may be extended. The final biological opinion will be prepared by the Services and provided to the FOSC, USFWS RRC, NOAA SSC, DOI and DOC RRT members, and the Area Committee Chair so that recommendations can be reviewed by the Area Committee, and where appropriate, implemented to minimize and/or avoid effects to listed species and critical habitat from future oil spill response actions.<sup>18</sup> The result of the consultation should be considered by the FOSC for inclusion in a lessons learned system so changes can be made to the ACP, as necessary, for the benefit of future oil spill response actions. If such changes to the ACP modify the anticipated effects to listed species or critical habitat, the Services should appropriately document the anticipated changes in future effects and complete any appropriate administrative steps.

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<sup>16</sup> If only proposed species or proposed critical habitat have been adversely affected, a formal consultation is not required; however, ESA conference procedures should be followed as appropriate. See the USFWS & NMFS Endangered Species Consultation Handbook for conference information.

<sup>17</sup> The NOAA SSC may also assist.

<sup>18</sup> Recommendations may also be provided for addressing effects caused by spill response actions. This information should be provided to the NRDA process as appropriate.

**VI. Points of Contact.** The following are the points of contact for each Party:

USCG: Chief, Office of Response, Coast Guard Headquarters (G-MOR), (202) 267-0516.

USEPA: Oil Program Center, U.S. Environmental Protection Agency, (703) 603-8823.

NOAA - NMFS: Section 7 Coordinator, Endangered Species Division, Office of Protected Resources, (301) 713-1401.

USFWS: National Spill Response Coordinator, U.S. Fish and Wildlife Service, Division of Environmental Quality, (703) 358-2148.

NOAA - NOS: Director, Office of Response and Restoration, (301) 713-2989 x101.

DOI: Office of Environmental Policy and Compliance, (202) 208-6304.

**VII. Funding and Resources.** This agreement is not a fiscal or funds obligation document. Nothing in this agreement shall be construed as obligating any of the Parties to the expenditure of funds in excess of appropriations authorized by law or otherwise commit any of the Parties to actions for which it lacks statutory authority. It is understood that the level of resources to be expended under this agreement will be consistent with the level of resources available to the Parties to support such efforts. Any activities involving reimbursement or contribution of funds between the Parties to this agreement will be handled in accordance with applicable laws, regulations and procedures. Such activities will be documented in separate agreements with specific projects between the Parties spelled out. The separate agreements will reference this general agreement.

**VIII. Effective Date.** The terms of this agreement are effective upon signature by all Parties.

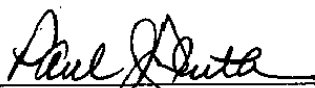
**IX. Modification.** This agreement may be modified upon the mutual written consent of the Parties.

**X. Termination.** The terms of this agreement, as modified, with the consent of all Parties, will remain in effect until terminated. Any Party upon 60 days written notice to the other Parties may terminate their involvement in this agreement.

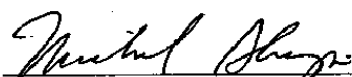
**Inter-agency Memorandum of Agreement Regarding Oil Spill Planning and  
Response Activities Under the Federal Water Pollution Control Act's  
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**Approved By:**

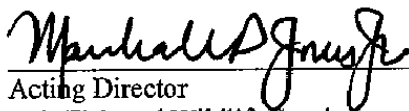
**Date:**

  
Assistant Commandant for Marine Safety  
and Environmental Protection  
U.S. Coast Guard

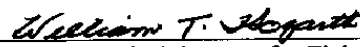
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Acting Assistant Administrator  
Office of Solid Waste and Emergency Response  
U.S. Environmental Protection Agency

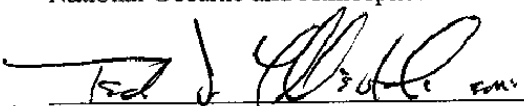
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U.S. Fish and Wildlife Service

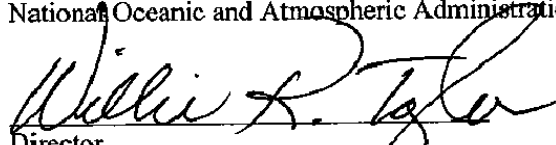
8 June 2001

  
Acting Assistant Administrator for Fisheries  
National Marine Fisheries Service  
National Oceanic and Atmospheric Administration

5/15/01

  
for Assistant Administrator  
National Ocean Service  
National Oceanic and Atmospheric Administration

5/30/01

  
Director  
Office of Environmental Policy and Compliance  
Department of the Interior

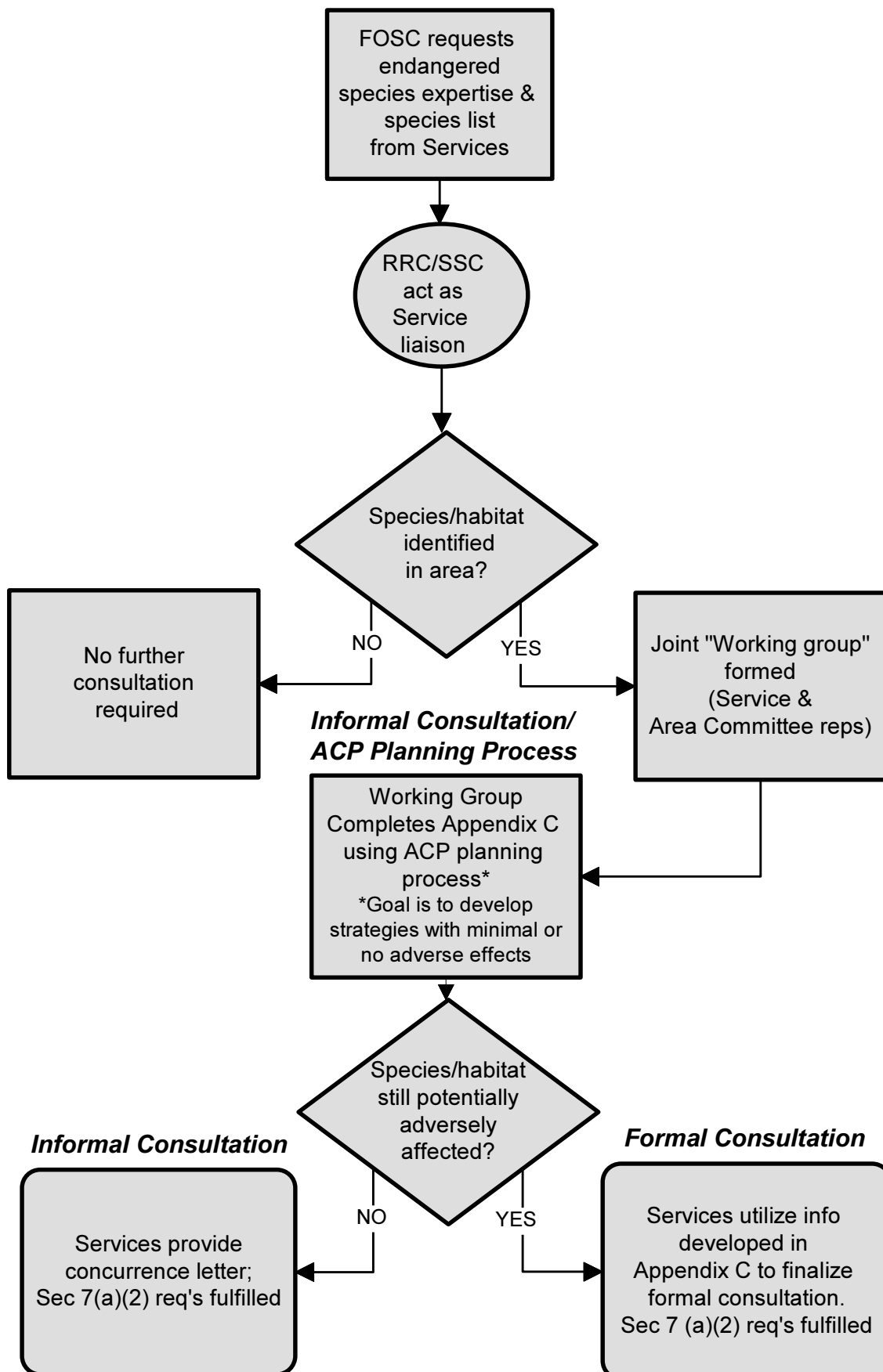
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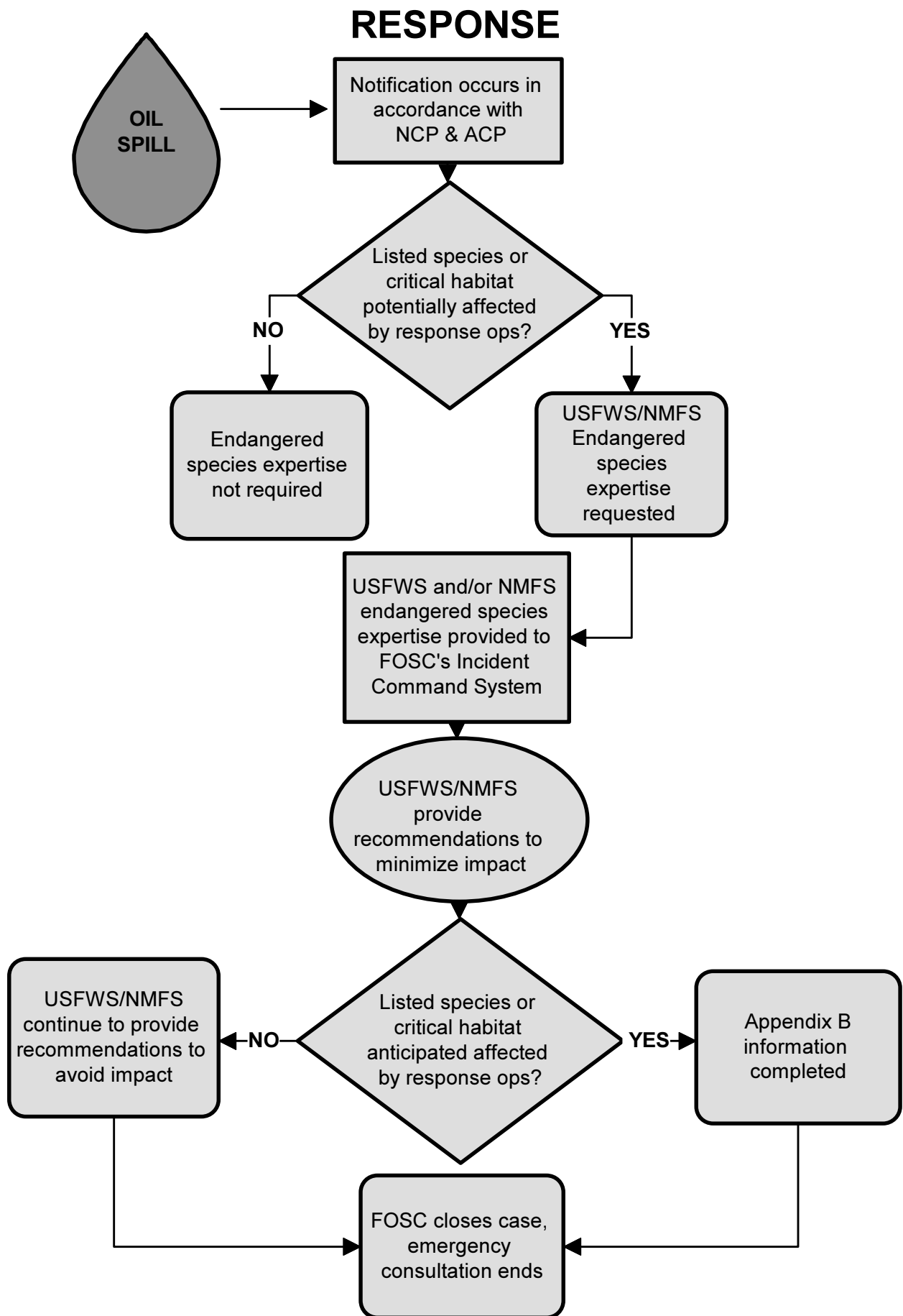
**APPENDIX A**

**OIL SPILL RESPONSE PROCESSES**

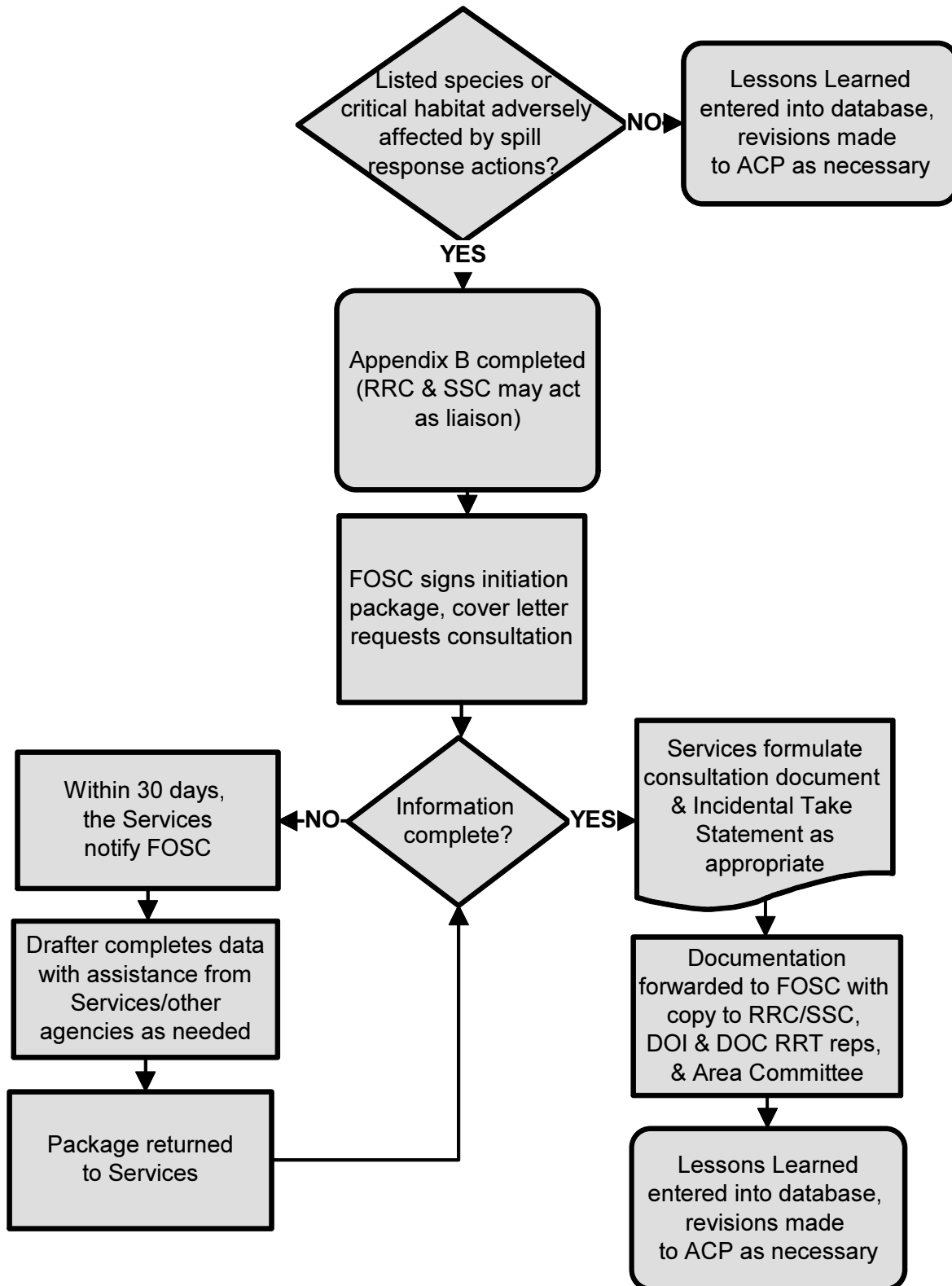


# PRE-SPILL PLANNING





## POST RESPONSE



## APPENDIX B

### **EMERGENCY CONSULTATION** **INFORMATION CHECKLIST IN ANTICIPATION OF FOLLOW-UP FORMAL** **CONSULTATION (50 CFR 402.05)**

As soon as practicable after the emergency is under control, which occurs when the case is closed, the FOSC initiates consultation (either formal or informal, as appropriate) with the Services if listed species and/or critical habitat have been affected. The FOSC should ensure that the following checklist is completed before the case is closed. After the case is closed, this information along with a cover letter requesting consultation will be sent to the Services.

1. Provide a description of the emergency (the oil spill response).
2. Provide an evaluation of the emergency response actions and their impacts on listed species and their habitats, including documentation of how the Services' recommendations were implemented, and the results of implementation in minimizing take.
3. Provide a comparison of the emergency response actions as described in #2 above with the pre-planned countermeasures and information in the ACP.

## APPENDIX C

### **PLANNING TEMPLATE**

One of the goals of the Area Contingency Plan (ACP) planning process is to develop strategies or actions that reduce the potential for planned oil spill response activities to adversely affect listed species and designated critical habitat. The planning process may also develop strategies that purposefully protect these resources. The following template is recommended for use by a working group of both Service and Area Committee representatives to develop a document that 1) is used to complete consultation pursuant to Section 7 (a)(2) of the Endangered Species Act of 1973, as amended, and 2) produces information to be included in the appropriate sections of the ACP. To streamline the consultation process, the various sections of this document could be drafted during the planning process and used to develop or modify the ACP.<sup>19</sup> This development process will assist all parties in gaining a thorough understanding of the actions under review and provide opportunities for any Section 7 consultation related issues to be raised and addressed in the planning process, rather than during the oil spill response action.

This template is intended to guide the thought process of creating consultation documents and incorporates content requirements set forth in 50 CFR 402.12 as well as information pertinent to the National Contingency Plan requirements under the Fish and Wildlife Annex; not every item will be applicable to every situation.<sup>20</sup>

#### **Introduction**

This section generally should be completed in one, or possibly two paragraphs.

- General overview of the response strategy including: (1) a brief description - one to two sentences; (2) background, history, etc. as appropriate; (3) purpose of the response strategy; (4) identification of the species and designated critical habitat that may be affected (for consultations that will address large numbers of species, it may be desirable to present this list in the form of a table either attached or presented in another section. Also, if species that may potentially occur in the area are not included in this document, explain why).

*This should be developed jointly by the action agency and the Services.*

#### **Description of the Proposed Response Strategy**

- Provide a description of the response strategy being considered. This is likely to be a detailed description taken substantially from the ACP. It should include how the

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<sup>19</sup> It is not required that this planning template be formally written or completed during informal consultation, especially if no modifications to the strategy are required. However, it can be very useful in documenting the [team's] thought process for the administrative record, serving as a guide, or providing additional documentation as needed.

<sup>20</sup> The guide on "Developing Consensus Ecological Risk Assessments" provides procedures which may be helpful in exploring and analyzing these issues. Copies can be obtained from USCG Headquarters (G-MOR-2).

response action will be implemented, including equipment and methods. Examples include use of dispersants to avoid shoreline impacts, and deployment of booms to protect sensitive areas. Include all known aspects of the action, such as time frames, why the action is appropriate, indirect effects, etc. An example of an indirect effect may be hauling boom on, or driving vehicles through, a sensitive dune area to gain access to a spill site.

*This should be developed by the action agency with the assistance of the Services.*

- Provide a description of specific area that may be affected by the response strategy (i.e. Sample Bay, 100-mile section of outer coastline, etc.). Include some measure of the area potentially impacted (i.e., “This plan addresses oil spill response activities that may be conducted out two miles from the coast throughout the 100 mile coastline area encompassed by this ACP”). If different activities are being proposed in different areas, identify this. The team should discuss the appropriateness of presenting this information in terms of the activities that will be conducted within each area, or the areas where each activity will be conducted. For example, “Dispersants may be applied throughout the 10 mile coastline length of Area A and the 25 mile coastline length of Area B.” Maps may be useful.

*This should be developed mainly by the action agency; however, modifications may be made with the assistance of the Services and subject to the approval process for chemical countermeasures in the NCP as appropriate.*

- Identify how to quickly obtain species/habitat information during a spill (i.e. first refer to ACP and site summary sheet, call State FWS, check website, etc.).
- Identify emergency response points of contact to be notified during a spill. Establish spill parameters for notification as necessary. These should be included in emergency notification numbers as well as on any site summary sheets, in geographic response plans, etc.

*This should be developed jointly by the action agency and the Services.*

### **Description of the Affected Environment**

- Describe the listed species and designated critical habitat areas that may be affected by the action in terms of overall range and population status. Include the number and location of known subpopulations within and adjacent to the action area (i.e., identify the areas known to be used by the species and, if appropriate, identify the specific times periods of use, such as February - April). Discuss the action area in relation to the distribution of the entire population (e.g., edge of the range, center of population abundance, key reproductive area, etc.). Present views of Service recognized experts on the species, if appropriate.

*This should be provided by the Services.*

- Ensure that these sensitive areas are referenced in the ACP (i.e. via ESI maps, specially generated GIS maps, site summary sheets, or other digitized format, etc.).  
*This should be completed by the action agency.*
- Provide biological data on listed species: historical use, presence, and potential use of habitat areas within the action area. Literature and other documents containing such information may be incorporated by reference. Provide species observation information, and recent results of species surveys, including, if appropriate, a description of methods, time of year surveys were performed, level of effort, and confidence intervals. Again, literature and other documents containing such information may be incorporated by reference. Maps may be useful to depict this information.  
*The Services should assist in developing this information. In many instances the Services will be able to supply this information from their records.*
- Identify other designated sensitive areas, both adjacent to and within the proposed action area. These include National Wildlife Refuges, National Marine Sanctuaries, etc.  
*This should be developed jointly by the action agency and the Services.*

#### **Analysis of the Effects of the Action**

- Describe all effects of the response strategy relative to the listed species of concern and its habitat, including designated critical habitat. This should include direct, indirect, beneficial, and cumulative effects as well as effects from interrelated and interdependent actions, if any.  
*This should be developed jointly by the action agency and the Services.*
- Describe any measures that may avoid or lessen adverse effects as well as any measures that will enhance the species' present condition. If appropriate, delineate the locations of such measures. A discussion of environmental "tradeoffs" (including no action) may be appropriate. For example, "Dispersants may be toxic to the listed aquatic species when used in concentrations above 70%; however, oil coming ashore and smothering the listed species in tidal marshes is of greater concern due to the extremely poor conservation status of this species." Reference any already completed relevant reports, studies, biological assessments, etc.  
*This should be developed jointly by the action agency and the Services.*

#### **Modification to Strategy (as needed)**

If necessary, after joint analysis of the information, the action or strategy may be modified.

- Describe the new strategy or action. For example, "Dispersants will not be used in

concentrations above X% or in areas less than three feet deep. They may be used in Area A and Area B. A Service representative from Regional field office B will be contacted during an oil spill response during the months of February - April in Area B.”

*This should be developed jointly by the action agency and the Services.*

### **Documentation**

This template is a guide to help you through the planning process, however, when sections are written out as the process is completed, the final document serves the same purpose as a biological assessment. It may be used to complete consultation pursuant to Section 7 of the ESA.

- The document should be maintained on file by the Services and may be referred to during an oil spill response.
- The Area Committee will ensure that this document becomes part of the ACP as appropriate such as:
  - Included as an appendix to the Dispersant or In Situ Burn Operations Plan;
  - Included as a reference document in the appropriate section of the ACP;
  - Include relevant information in sections of the ACP such as Notifications, Site Summary Sheets, Geographic Response Plans, GIS maps, etc.
- The document should include points of contact from both the action agency and the Services.



## APPENDIX D

### **SAMPLE POLLUTION REMOVAL FUND AUTHORIZATION (PRFA)** **LANGUAGE\***

This Statement of Work (SOW) language is intended as sample language only. The language can be tailored to ensure that the FOSC is provided with the resources needed to meet the desired activities or functions required. Accordingly, more precise or succinct language may be used.

PRFA SOW additional/optional work elements to meet the FOSC's ESA mandated activities associated with removal actions:

.....

To arrange for, and as appropriate coordinate with, the resources needed to meet the conference and consultation requirements of the ESA.

Specific activities anticipated under this requirement include:

- (a) Providing the expertise needed to make sensitive removal decisions which could potentially impact on listed species or critical habitats associated with this incident;
- (b) Gathering and documenting the information needed to provide input into the aforementioned decisions and to document the resulting impact of removal actions; and
- (c) As required, preparing the consultations required of the FOSC for the Service(s).

Funding under this agreement is provided for:

- (a) Salaries, travel and per diem;
- (b) Appropriate charges for use of equipment or facilities;
- (c) Any actual expenses for goods and/or services reasonably obtained in order to provide the agreed upon support to the FOSC removal activities (including contracts.)

\* Developed by the National Pollution Funds Center

## APPENDIX E

### **SAMPLE LETTERS FOR REQUESTING CONCURRENCE OR FORMAL CONSULTATION**

These sample letters have been developed to assist the Parties to this agreement in documenting the requirements of the Endangered Species Act. This is suggested wording only and may be used to complete the administrative record as needed. The request for concurrence can be used after the planning process for a particular area or countermeasure when it has been determined that no adverse effects will occur. The Services will provide a concurrence letter, as appropriate, for documentation. Alternatively, the request for formal consultation can be used after planning results indicate that adverse effects may still occur. If this is the case, the Services will evaluate the information developed jointly by the workgroup and issue a biological opinion.

#### **Request for Concurrence Letter:**

Mr./Ms. xxx  
U.S. Fish and Wildlife Service/National Marine Fisheries Service  
Division of Endangered Species

Dear Mr./Ms. xxx:

In accordance with the requirements of Section 7 of the Endangered Species Act, I am seeking your concurrence that the [Coast Guard's/EPA's] implementation of the [name of plan] is not likely to adversely affect the [identify the listed species and designated critical habitat that may be affected. Note, in cases where many listed species or critical habitat designations may be involved, it may be appropriate to refer to an attached list]. This [name of plan] has been developed with the assistance of [name of Service staff] of the U.S. Fish and Wildlife Service/National Marine Fisheries Service and in accordance with the procedures identified at 40 CFR Part 300, the National Contingency Plan. To assist in completing informal consultation, please find attached the Biological Evaluation that has been produced through the planning process described in the Inter-agency Memorandum of Agreement Regarding Oil Spill Planning and Response Activities Under the Federal Water Pollution Control Act's National Oil and Hazardous Substances Pollution Contingency Plan and the Endangered Species Act using the Planning Template contained in Appendix C of that Agreement.

Thank you for your efforts in this matter. If you require additional information, please contact [provide a contact with a telephone number].

Sincerely,

**Request for formal consultation:**

Mr./Ms. xxx:  
U.S. Fish and Wildlife Service/National Marine Fisheries Service  
Division of Endangered Species

Dear Mr./Ms. xxx:

In accordance with the requirements of Section 7 of the Endangered Species Act, I am requesting the initiation of Formal Consultation on the effects of the [Coast Guard's/EPA's] implementation of the [name of plan]. Through informal consultation with your staff [or identify the appropriate Service office(s)], we have determined that implementation of spill response activities in accordance with the subject [name of plan] is likely to result in adverse effects to [identify the listed species and designated critical habitat that may be affected. Note, in cases where many listed species or critical habitat designations may be involved, it may be appropriate to refer to an attached list]. This [name of plan] has been developed with the assistance of [name of Service staff] of the U.S. Fish and Wildlife Service/National Marine Fisheries Service and in accordance with the procedures identified at 40 CFR Part 300, the National Contingency Plan. While these actions may result in short-term adverse effects, it is our belief that the species [and designated critical habitat areas] will ultimately benefit from them. To assist in completing Formal Consultation, please find attached the Biological Evaluation that has been produced through the planning process described in the Inter-agency Memorandum of Agreement Regarding Oil Spill Planning and Response Activities Under the Federal Water Pollution Control Act's National Oil and Hazardous Substances Pollution Contingency Plan and the Endangered Species Act using the Planning Template contained in Appendix C of that Agreement.

Thank you for your efforts in this matter. If you require additional information, please contact [provide a contact with a telephone number].

Sincerely,

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## **ANNEX VI**

# **PROGRAMMATIC AGREEMENT ON PROTECTION OF HISTORIC PROPERTIES DURING EMERGENCY RESPONSE UNDER THE NATIONAL OIL AND HAZARDOUS SUBSTANCES POLLUTION CONTINGENCY PLAN**

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**PROGRAMMATIC AGREEMENT ON PROTECTION OF HISTORIC PROPERTIES  
DURING EMERGENCY RESPONSE UNDER THE NATIONAL OIL AND  
HAZARDOUS SUBSTANCES POLLUTION CONTINGENCY PLAN**

**ANNEX VI TO REGION 7 INTEGRATED CONTINGENCY PLAN**

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## **I. PURPOSE**

- A. The signatory federal departments and agencies enter into this programmatic agreement (PA) to ensure that historic properties are taken into account in their planning for and conduct of the emergency response under the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). 40 CFR Section Part 300. The National Conference of State Historic Preservation Officers (NCSHPO) is also a signatory, on behalf of State Historic Preservation Officers (SHPOs), to facilitate federal agency ability to develop and execute a uniform nationwide approach for considering and treating historic properties before and during emergency response. In the event an individual SHPO is unable to respond, the Agency or Department may contact the NCSHPO or the Advisory Council on Historic Preservation (ACHP) to consider alternatives and receive assistance. The signatories agree that their Departments/Agencies will follow this PA or, to meet regional needs, develop regional PAs that are not inconsistent with this PA and the National Historic Preservation Act of 1966, as amended (NHPA), P.L. 89-665, 16 U.S.C. Section 470 et seq., and the regulations promulgated thereto.
- B. The NCP does not provide specific guidance for taking historic properties into account during emergency response to an actual or threatened release of a hazardous substance, pollutant or contaminant or the discharge of oil or other pollutants (hereinafter, a release or spill). Also, emergency provisions contained in the regulations implementing Section 106 of the NHPA do not directly address requirements for such emergency responses. Accordingly, for the purpose of this PA, an “emergency” shall be deemed to exist whenever circumstances dictate that a response action to a release or spill must be taken so expeditiously that normal consideration of the Section 106 process is not reasonably practicable.
- C. The purpose of this PA is to provide an alternative process to ensure appropriate consideration of historic properties within the meaning of the NHPA during emergency response to a release or spill. This PA does not address the consultation procedures under Section 106 of the NHPA once that phase of the response action has ended.
- D. In carrying out duties under the NCP, including the priorities of protecting public health and safety, the Federal On-Scene Coordinator (FOSC) may have to make emergency

response decisions that adversely affect historic properties. By following this PA, however, the FOSC will be making an informed decision that takes historic property information into account prior to authorizing actions that might affect such property.

- E. The responsibility of the FOSC in protecting public health and safety is paramount. That mission is a difficult one involving problems that cannot be anticipated and calling for judgment on the part of the FOSC. Nothing in this PA changes the national response priorities, nor does it change the effect of existing law.
- F. 36 CFR Section 800.13 provides, inter alia, that:

*An Agency Official may elect to fulfill an agency's Section 106 responsibilities for a particular program, a large or complex project, or a class of undertakings...through a Programmatic Agreement.*

36 CFR Section 800.13(e) provides that:

*An approved Programmatic Agreement satisfies the Agency's Section 106 responsibilities for all individual undertakings carried out in accordance with the agreement until it expires or is terminated.*

During such time as the ACHP and the NCSHPO are signatories, compliance with this PA by a FOSC will be deemed to constitute compliance with Section 106 of the NHPA during pre-incident planning and emergency response activities.

## **II. LEGAL AUTHORITIES PROTECTING HISTORIC PROPERTIES**

### **A. National Historic Preservation Act**

- 1. In 1966, Congress instituted a policy to preserve the Nation's cultural and historic heritage by enacting the NHPA. The NHPA implementing regulations most pertinent to actual or threatened releases of hazardous substances, pollutants or contaminants or oil spills are those of: 1) the ACHP, an independent federal agency that administers Section 106 of the NHPA through procedures specified in

36 CFR Part 800, “Protection of Historic Properties,” and 2) the Department of the Interior (DOI) regulations at 36 CFR Part 60, National Register of Historic Places.

2. Section 106 of the NHPA provides that federal agencies are to take into account the effects of “Federal or federally assisted undertakings” on historic properties that are listed in or eligible for inclusion in the National Register of Historic Places. It further affords the ACHP an opportunity to comment on the undertaking.<sup>1</sup>

B. This PA does not address other federal laws defining and protecting historic properties, such as:

1. The Archaeological Resources Protection Act (ARPA), 16 U.S.C. Section 470aa et seq., which provides for the protection of archeological sites and other resources. ARPA establishes criminal and civil penalties for actual or attempted illegal excavation or removal of or damage to archeological resources; illegal trafficking in archeological resources; and knowingly causing another to commit an ARPA violation;
2. The Native American Graves Protection and Repatriation Act (NAGPRA), 25 U.S.C. Section 3001 et seq., which provides for the protection of Native American human remains and other defined classes of cultural items. NAGPRA also establishes criminal penalties for illegal trafficking in these cultural items. 18 U.S.C. Section 1170;
3. The Antiquities Act of 1906, 16 U.S.C. Section 433 et seq., which establishes criminal penalties for non-permitted appropriation, excavation, injury, or

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<sup>1</sup> Section 106 of the NHPA provides, inter alia, as follows:

Effect of Federal undertakings upon property listed in National Register; comments by Advisory Council on Historic Preservation. The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. The head of any such Federal agency shall afford the Advisory Council on Historic Preservation ... a reasonable opportunity to comment with regard to such undertaking.

- destruction of any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned or controlled by the Federal Government; and
4. The National Marine Sanctuaries Act (also known as Title III of the Marine Protection, Research and Sanctuaries Act, 16 U.S.C. Section 1431, et seq., which establishes civil penalties for destruction of, loss of, or injury to a sanctuary resource, including historic properties. In addition to fines, parties can also be held responsible for response costs; damages including replacement cost, restoration cost, or acquisition of an equivalent sanctuary resource, and lost-use value of that resource and interest.
- C. Many states also have laws defining and protecting historic properties. Regional PAs may consider state laws relevant to the historic properties in the region, to the extent they are not inconsistent with federal law.

### **III. DEFINITION OF “HISTORIC PROPERTY”**

- A. The term “historic property” is defined in the NHPA as: “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion on the National Register”; such term includes artifacts, records, and remains which are related to such district, site, building, structure, or object. 16 U.S.C. Section 470(w)(5).
- B. Criteria for listing a property in the National Register of Historic Places are found at 36 CFR Part 60. The statutory definition of historic properties and the established criteria determine whether a historic property needs to be considered during emergency response. A historic property need not be formally listed on the National Register to receive NHPA protection, it need only meet the National Register criteria (i.e., be eligible for listing in the National Register). Section VI.C.2, below, discusses determining the National Register eligibility of historic properties during emergency response.

### **IV. RESPONSIBILITY FOR HISTORIC PROPERTIES CONSIDERATION**

- A. For the purpose of this PA, the FOSC, as the federal official designated to coordinate and direct response actions, is responsible for ensuring that historic properties are appropriately considered in planning and during emergency response.
- B. Planning Support/Coordination

1. The NCP, at 40 CFR Section 300.210(c), provides that Area Contingency Plans (ACPs) are to be developed under the direction of a FOSC. The FOSC shall ensure that ACPs include the information on consideration of historic properties and are developed in consultation with the parties specified in Section V of this agreement.
2. Federal agencies with expertise in protection of historic properties available to assist the FOSC during preparedness planning include the Department of the Interior,<sup>2</sup> the ACHP, and other federal land-managing agencies for properties on their lands. The primary source of information on historic properties in an area, particularly properties not on federal lands, is the SHPO, who is the official appointed by the Governor as part of the state's participation in NHPA programs. Other parties that may assist are listed in V.A. of this PA.
3. The National Program Center (NPC) of the National Park Service, consistent with its authority and responsibilities, will provide coordination of appropriate expertise to Area Committees and Regional Response Teams (RRTs) for pre-incident planning activities through the United States Coast Guard (Coast Guard) and the United States Environmental Protection Agency (EPA). The NPC will coordinate through the Commandant of the Coast Guard and the Office of Emergency and Remedial Response of EPA.
4. Prior to finalizing or subsequently revising ACPs, the FOSC will provide a draft of sections addressing historic properties identification and protection to the parties identified in Section V.A. of this PA. Each party shall have 30 calendar days from receipt to review the draft and provide comments to the FOSC. Should any reviewing party file a timely objection to the draft or any portion thereof, the FOSC will consult with the objecting party to resolve the objection. If the objection cannot be resolved, the FOSC will provide documentation of the dispute

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<sup>2</sup> 40 CFR Section 300 175(b)(9) reads, in pertinent part, as follows:

DOI may be contacted through Regional Environmental Officers (REOs), who are the designated members of RRTs.... [B]ureaus and offices have relevant expertise as follows:

...(viii) National Park Service: General biological, natural, and cultural resource managers to evaluate, measure, monitor and contain threats to park system lands and resources; archaeological and historical expertise in protection, preservation, evaluation, impact mitigation, and restoration of cultural resources...

to the ACHP and request their comments. The ACHP comments will be taken into account by the FOSC in finalizing or revising ACPs.

C. Emergency Response Support/Coordination

1. To ensure historic properties are considered during emergency response, the FOSC must have access to reliable and timely expertise and support in order to make timely and informed decisions about historic properties.
2. A FOSC may obtain historic properties expertise and support in any one of several ways. These include implementing an agreement with state or federal agencies that have historic properties specialists on staff (see IV.B.2), executing a contract with experts identified in ACPs or hiring historic properties specialists on staff. Historic properties specialists made available under contract or hired must:
  - a. Meet the qualifications listed in the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, 8 Federal Register 44738-39 (September 29, 1983); see Appendix II; and
  - b. Be available to assist the FOSC whenever needed.

V. **PRE-INCIDENT PLANNING**

- A. As part of pre-incident planning activities, FOSCs (or the OSC's management) shall consult with the SHPO, federal land-managing agencies, appropriate Indian Tribes and appropriate Native Hawaiian organizations, as defined in Section 301 of the NHPA, and the other interested parties identified during pre-incident planning, as described in Section IV.B of this PA, to:
1. Identify historic properties.
    - a. Identify: 1) historic properties that have been listed in or determined eligible for inclusion in the National Register of Historic Places that might be affected by response to a release or spill; and 2) unsurveyed areas where there is a high potential for the presence of historic properties.
    - b. Identify exclusions. These may be specific geographic areas or types of areas where, should a release or spill occur, historic properties are unlikely to be affected. This includes the specifics listed in Appendix I and any

additional exclusions agreed on by the signatories to this or a regional PA. Incidents in areas covered by exclusions would not require consideration for protection of historic properties, except as provided in Section VI.A.1.<sup>(3)</sup>

2. Develop a list of parties that are to be notified in the event of an incident in a non-excluded area. This list should include the SHPO for the state in which the incident occurred, federal and Indian Tribal land owners or land managers and Hawaiian Native organizations in the area where the incident occurred, if any.
  3. Develop emergency response strategies that can be reasonably anticipated to protect historic properties. The FOSC shall ensure that response strategies, including personnel and equipment needed, are developed to protect or help protect historic properties at risk. This includes consideration of the sensitivity of historic properties to emergency response measures proposed in ACPs or other response plans, including chemical countermeasures and in situ burning.
- B. The FOSC shall ensure that historic properties protection strategies can be carried out by:
1. Identifying who will be responsible for providing expertise on historic properties matters to the FOSC during emergency response. Depending on the size and complexity of the incident, a FOSC historic properties specialist or a historic properties technical advisory group convened by the specialist may be the most effective mechanism;
  2. Providing information on availability of appropriate training for historic property specialists to participate in emergency response, ~g., Hazardous Waste Operations and Emergency Response (HAZWOPER) training, familiarity with all relevant contingency plans and response management systems, etc.; and
  3. Working with the parties listed in section V.A. to obtain information for response personnel on laws protecting and activities that may potentially affect historic properties.

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<sup>3</sup> Response to spills or releases that involve non-excluded areas should be considered to have the potential to adversely affect historic properties that are listed in or eligible for inclusion in the National Register.

## **VI. FEDERAL LEAD EMERGENCY RESPONSE**

- A. The FOSC shall determine whether the exclusions described in section V.A.1.b. apply.
1. If the incident affects only excluded areas, no further actions are necessary under this PA, unless:
    - a. Previously unidentified historic properties are discovered during emergency response; or
    - b. The SHPO (or appropriate federal, Indian, or Hawaiian Native organizations) notifies the FOSC that a categorically excluded release or spill may have the potential to affect a significant historic property.
  2. If the area where a release or spill occurs has not been excluded, in the cases specified in Section VI.A. 1 .a or b, if the FOSC is unsure whether an exclusion applies, or if the specifics of the incident change so that it no longer fits into one of the exclusions, the remaining steps in this Section shall be followed.
- B. Activate the agreed-upon mechanism for addressing historic properties, including notification of the parties identified pursuant to Section V.A.2., and consultation with these parties concerning the identification of historic properties that may be affected, assessing the potential effects of the emergency response, and developing and implementing emergency response activities. These requirements for notification and consultation shall be satisfied if the FOSC makes reasonable and timely efforts to notify and consult the parties listed in this Section. Thereafter there shall be additional consultation to the extent practicable.
- C. Verify identification of historic properties.
1. Consult with the SHPO, land owners and/or land managers, appropriate Indian Tribes and Native Hawaiian organizations, and other interested parties identified in pre-incident planning to verify the location of historic properties identified during the planning process and determine if other historic properties exist in areas identified in V .A. 1 .a.2. that might be affected by the incident or the emergency response. If newly discovered or unanticipated potential historic properties are encountered during emergency response actions, the FOSC shall either: 1) consult with the SHPO (or appropriate federal, Indian, or Hawaiian



Native organizations) to determine if the properties are eligible for inclusion in the National Register, or 2) treat the properties as eligible.

- D. Assess potential effects of emergency response strategies on historic properties. Such assessment shall be done in consultation with the parties listed in Section V A.
1. The potential adverse effects of releases or spills and of emergency response on historic properties may include, but are not limited to:
    - a. Physical destruction, damage, or alteration of all or part of the historic property;
    - b. Isolation of the property from or alteration of the character of the property's setting when that character contributes to the property's qualification for the National Register; and
    - c. Introduction of visual, audible, or atmospheric conditions that are out of character with the property or alter its setting.
  2. Emergency response actions that may have adverse effects on historic properties include, but are not limited to:
    - a. The placement of physical barriers to deter the spread of released or spilled substances and the excavation of trenches to stop the spread of the released or spilled substances; and
    - b. Establishing camps for personnel, constructing materials storage and staging yards, excavating borrow pits for fill materials, and constructing alignments for road access.
  3. Direct physical contact of historic properties with released or spilled substances may result in one or more of the following: 1) inability to radiocarbon date the contaminated resources; 2) acceleration of deterioration of an object or structure; or 3) prevention of identification of historic properties in the field. As a result, important scientific, historic, and cultural information may be lost.
- E. Make and implement decisions about appropriate actions. The FOSC shall take into account professional comments received from the parties listed in Section V.A. in making decisions that might affect historic properties.

1. Emergency response strategies delineated in plans may need to be reviewed based on information available at the time of an actual incident. The purpose of this review is to evaluate whether implementation of the strategies in the plan might, for the emergency response action that is underway, adversely affect historic properties and, if so, how such effects might be avoided or reduced.
  2. Make arrangements for suspected artifact theft to be reported to the SHPO, law enforcement officials, and the land owner/manager.
  3. Arrange for disposition of records and collected materials.
  4. Ensure the confidentiality of historic property site location information, consistent with applicable laws, so as to minimize opportunities for vandalism or theft.
- F. Whenever the FOSC determines the requirements of this Section cannot be satisfied concurrently with the paramount requirement of protecting public health and safety, the determination shall be documented in a writing including the name and title of the person who made the determination; the date of determination; and a brief description of the competing values between public health and safety and carrying on the provisions of this Section. Notwithstanding such a determination, if conditions subsequently permit, the FOSC shall endeavor to comply with the requirements of this Section to the extent reasonably practicable.

## **VII. REGIONAL PAs**

- A. Regional PAs may be developed as provided in I.A. as an alternative to this national PA. Regional PAs are to include the provisions of this PA and may include appropriate additional provisions responsive to regional concerns.
- B. A regional PA should be signed by appropriate regional-level federal officials, state agencies, tribal officials and the ACHP.
- C. Either this PA or a PA developed at a regional level may be adopted by the RRT and incorporated or referenced in Regional Contingency Plans (RCPs), 36 CFR Section 300.210(b), and ACPs in the region.

### **VIII. AUTHORITY, EFFECTIVE DATE, WITHDRAWAL, AMENDMENT**

- A. The signatories below are authorized to sign the PA on behalf of their respective Department, Agency or organization. This PA may be signed in counterparts.
- B. In order to allow sufficient time for pre-incident planning and other preparedness activities, this PA shall not become effective with respect to a signatory Department or Agency until ninety (90) days after it has been signed on the Department's or Agency's behalf.
- C. Any signatory may withdraw from this PA by sending, through an official authorized to act in this matter, written notice to all current signatories at least thirty (30) days in advance of the effective date of withdrawal. The requirements contained in this PA will remain in full force and effect with respect to remaining signatories.
- D. Nothing herein prevents the signatories from agreeing to amend this PA.

### **SIGNATORIES**

#### **Advisory Council on Historic Preservation**

Chairman

June 4, 1997

#### **National Conference of State Historic Preservation Officers**

President

May 13, 1997

#### **U.S. Environmental Protection Agency**

Acting Deputy Director, Office of Emergency and Remedial Response

May 23, 1997

#### **U.S. Department of the Interior**

Director, Office of Environmental Policy and Compliance

June 4, 1997

#### **U.S. Department of Transportation, Coast Guard**

Assistant Commandant for Marine Safety and Environmental Protection

May 13, 1997

#### **National Park Service**

Acting Deputy Director

August 7, 1997

**U.S. Department of Commerce, National Oceanic and Atmospheric Administration**

Assistant Administrator for Ocean Services and Coastal Zone Management

July 3, 1997

**U.S. Department of Energy**

Deputy Director

November 7, 1997

**U.S. Department of Defense**

Deputy Under Secretary of Defense (Environmental Security)

November 3, 1997

**U.S. Department of Agriculture**

Under Secretary of Defense for Natural Resources and Environment

August 28, 1998

**ENDNOTES**

[Endnotes in original have been converted to footnotes.]

## **APPENDIX I - CATEGORICAL EXCLUSION LIST**

Releases or Spills Categorically Excluded from Additional National Historic Preservation Act  
Section 106 Compliance.

### **Releases/Spills onto (which stay on):**

- Gravel pads
- Roads (gravel or paved, not including the undeveloped right-of-way)
- Parking areas (graded or paved)
- Dock staging areas less than 50 years old
- Gravel causeways and artificial gravel islands
- Drilling mats, pads, and/or berms
- Airport runways (improved gravel strips and/or paved runways)

### **Releases/Spills into (that stay in):**

- Lined pits; e.g., drilling mud pits and reserve pits
- Water bodies where the release/spill will not: 1) reach land/submerged land; and 2) include emergency response activities with land/submerged land-disturbing components
- Borrow pits
- Concrete containment areas

### **Releases/Spills of:**

- Gases (e.g., chlorine gas)

IMPORTANT NOTE TO FOSC:

1. IF YOU ARE NOT SURE WHETHER A RELEASE OR SPILL FITS INTO ONE OF THE CATEGORIES LISTED ABOVE;
2. IF AT ANY TIME, THE SPECIFICS OF A RELEASE OR SPILL CHANGE SO IT NO LONGER FITS INTO ONE OF THE CATEGORIES LISTED ABOVE;
3. IF THE SPILL IS GREATER THAN 100,000 GALLONS; AND/OR
4. IF THE STATE HISTORIC PRESERVATION OFFICER NOTIFIES YOU THAT A CATEGORICALLY EXCLUDED RELEASE OR SPILL MAY HAVE THE POTENTIAL TO AFFECT A HISTORIC PROPERTY.

YOU OR YOUR REPRESENTATIVE MUST FOLLOW THE SECTION VI OF THIS PA.

## **APPENDIX II - SECRETARY OF THE INTERIOR'S STANDARDS FOR ARCHEOLOGY AND HISTORIC PRESERVATION**

*48 Federal Register 44738-39 (September 29, 1983)*

### **Professional Qualifications Standards**

The following requirements are those used by the National Park Service and have been previously published in the Code of Federal Regulations 36 CFR Part 61. The qualifications define minimum education and experience required to perform identification, evaluation, registration, and treatment activities. In some cases, additional areas or levels of expertise may be needed depending on the complexity of the task and the nature of the historic properties involved. In the following definitions, a year of full-time professional experience need not consist of a continuous year of full-time work but may be made up of discontinuous periods of full-time or part-time work adding up to the equivalent of a year of full-time experience.

### **History**

The minimum professional qualifications in history are a graduate degree in history or closely related field; or a bachelor's degree in history or closely related field plus one of the following:

- At least two years of full time experience in research, writing, teaching, interpretation, or the demonstrable professional activity with an academic institution, historic organization or agency, museum, or other professional institution; or
- Substantial contribution through research and publication to the body of scholarly knowledge in the field of history.

### **Archeology**

The minimum professional qualifications in archeology are a graduate degree in archeology, anthropology, or closely related field plus:

- At least one year of full-time professional experience or equivalent specialized training in archeological research, administration or management;
- At least four months of supervised field and analytic experience in general North American archeology; and
- Demonstrated ability to carry research to completion.

In addition to these minimum qualifications, a professional in prehistoric archeology shall have at least one year of full-time professional experience at a supervisory level in the study of archeological resources of the prehistoric period. A professional in historic archeology shall have at least one year of full-time professional experience at a supervisory level in the study of archeological resources of the historic period.

### **Architectural History**

The minimum professional qualifications in architectural history are a graduate degree in architectural history, art history, historic preservation, or closely related field, with course work in American architectural history; or a bachelor's degree in architectural history, art history, historic preservation or closely related field plus one of the following:

- At least two year of full-time experience in research, writing, or teaching in American architectural history or restoration architecture with an academic institution, historical organization or agency, museum or other professional institution; or
- Substantial contribution through research and publication to the body of scholarly knowledge in the field of American architectural history.

### **Architecture**

The minimum professional qualifications in architecture are a professional degree in architecture plus at least two years of full-time experience in architecture; or state license to practice architecture.

### **Historic Architecture**

The minimum professional qualifications historic in architecture are a professional degree in architecture or a state license to practice architecture, plus one of the following:

- At least one year of graduate study in architectural preservation, American architectural history, preservation planning, or closely related field; or
- At least one year of full-time professional experience on historic preservation projects.



Such graduate study or experience shall include detailed investigations of historic structures, preparation of historic structure research reports, and preparation of plans and specifications for preservation projects.

Updated April 30, 2002

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## **ANNEX VII**

# **MEMORANDA OF UNDERSTANDING BETWEEN EMERGENCY RESPONSE PROGRAMS OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY REGIONS 4 & 7, REGIONS 5 & 7, AND REGIONS 6 & 7**

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**MEMORANDUM OF UNDERSTANDING  
CROSS-BOUNDARY EMERGENCY RESPONSE AND REMOVAL SUPPORT  
REGIONS 5 AND 7  
U.S. ENVIRONMENTAL PROTECTION AGENCY**

**ANNEX VII TO REGION 7 INTEGRATED CONTINGENCY PLAN**

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**MEMORANDUM OF UNDERSTANDING  
BETWEEN THE  
U.S. ENVIRONMENTAL PROTECTION AGENCY REGIONS 6 AND 7**

**ANNEX VII TO REGION 7 INTEGRATED CONTINGENCY PLAN**

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**MEMORANDUM OF UNDERSTANDING  
BETWEEN THE  
U.S. ENVIRONMENTAL PROTECTION AGENCY REGIONS 4 AND 7**

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**MEMORANDUM OF UNDERSTANDING  
CROSS-BOUNDARY EMERGENCY RESPONSE AND REMOVAL SUPPORT  
REGIONS 5 AND 7  
U.S. ENVIRONMENTAL PROTECTION AGENCY**

The purpose of this memorandum is to establish a mutual aid agreement for cross-regional emergency and removal response activities between U.S. Environmental Protection Agency (EPA) Regions 5 and 7.

**I. AUTHORITIES**

The mutual aid provided under this agreement will enhance the Agency's response to releases of oil, hazardous substances, pollutants, and contaminants; and, which is done pursuant to the authorities vested in EPA under the Clean Water Act, as amended by the Oil Pollution Act of 1990 (OPA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) as amended by the Superfund Amendments and Reauthorization Act (SARA) and further defined in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) 40 CFR 300 et. seq. This agreement also encompasses responses which the Regions may undertake pursuant to the Stafford Disaster Relief Act and amendments, and as further defined in the Federal Response Plan.

**II. PRE-DESIGNATION AND LOCATION OF OSCS**

Pursuant to 40 CFR 300.120(a), each EPA Regional Administrator has predesignated On-Scene Coordinators (OSCs) for the Inland Zone. The names of the predesignated OSCs are available through the respective region's duty phone officer or removal manager.

Region 5 predesignated OSCs are presently duty-stationed in the following locations:

- Chicago, Illinois
- Carterville, Illinois
- Grosse Ile, Michigan
- Westlake, Ohio
- Cincinnati, Ohio

Region 7 predesignated OSCs are presently duty-stationed in the following locations:

- St. Louis, Missouri
- Kansas City, Kansas

The distribution of OSCs among these duty-stations facilitates timely response activities on the part of EPA throughout the two Regions. Each OSC is able to perform response activities outside of the proximity of his/her immediate duty-station area, and by virtue of this agreement, across EPA regional boundaries should circumstances warrant such involvement. Examples of such circumstances are described subsequently in this agreement. It is anticipated that Regions 5 and 7 will be able to respond in a more timely fashion along the Mississippi River boundary between our two respective regions with the implementation of this Memorandum of Understanding (MOU). This MOU would not preclude either Region from asking for assistance beyond the flood plain area of the Mississippi and could include tributaries to, or areas apart from the Mississippi River.

### **III. ON-SCENE COORDINATOR RESPONSE ACTIVITIES**

Under CERCLA/SARA and OPA, pre-designated OSCs perform emergency and removal response activities where: (a) there is a release or substantial threat of release of hazardous substances; (b) there is a release or substantial threat of release into the environment of any pollutant, or contaminant which may present an imminent and substantial danger to public health or welfare; and (c) there is a discharge or substantial threat of a discharge of oil to the waters or to the adjoining shorelines of waters of the United States. These responses can be determined necessary in response to a variety of situations including but not limited to accidental spills, transportation accidents, facility explosions, dumping, criminal actions, terrorism, hurricanes, earthquakes, floods, or other forms of natural disasters.

Predesignated OSCs can also perform response activities under the direction of other federal agencies, including:

- Stafford Act Federal Disaster Declarations, which would allow EPA to support FEMA performing the Emergency Support Function #10 (ESF - 10) to address hazardous materials
- Counter-Terrorism Responses per Presidential Decision Directive 39 (PDD -39).



#### **IV. MUTUAL AID CROSS-REGIONAL RESPONSE ACTIVITIES**

It is hereby agreed by the signatories that the two EPA regional offices represented in this agreement will upon request endeavor to assist each other in cross-regional response activities. A cross-boundary response can be performed where the closest OSC is from another region, and where the magnitude of the response is such that assistance is warranted. In accordance with 40 CFR 300.135(b), the OSC providing a cross-boundary response can serve as the First Federal Official (FFO) on scene. As FFO, the OSC providing the cross-boundary response, shall initiate and carry out all OSC responsibilities, in consultation with the lead region's predesignated OSC. The FFO would carry out actions until a predesignated OSC from the lead region arrives on scene, or until the incident no longer warrants a federal response action.

#### **V. BUDGET AND CONTRACTS**

The signatory regions recognize the benefits of the OSC in an emergency, utilizing all means possible to conduct a successful response and utilize the available resources to protect human health and the environment. Contract crossovers can be utilized if they are determined to be in the best interest of the Government. It is expected that issues of utilizing contracting mechanisms available to other regions will be evaluated as a result of this MOU and if necessary, specific protocols will be established to expedite response actions.

The lead region is responsible for funding the response action and furnishing, as appropriate, the regional and site-specific accounting and appropriation data to the OSC from the supporting region who is serving as either FFO or OSC representative. When the OSC providing the cross-boundary response is requested by the lead region to assume the role of designated OSC, the lead region shall establish, as necessary, appropriate authority and/or procedures to enable the OSC providing the cross-boundary response to utilize the lead region's contract resources for the duration of their involvement in the incident.

## **VI. PROCESS FOR ACTIVATING CROSS-REGIONAL SUPPORT UNDER THIS AGREEMENT**

- Requests for cross-boundary support response to an emergency incident should be made to the phone duty officer. In requesting the support the lead region should specify the type of support required, presence of a FFO, or other such information as deemed appropriate at the time of the response. In implementing this MOU, each Region shall develop and apply procedures, as appropriate, that authorize and provide for the immediate dispatch of an OSC by the duty officer in support of the lead region. The phone duty officers from each respective Region are expected to notify and brief their management concerning actions taken pursuant to the request.
- Requests for site coverage support and/or support during an ESF #10 activation should generally be made during business hours, initiated by the lead Region, and by contact between the respective Removal Managers or their designees. In the event that the Removal Managers are not available and/or the support becomes apparent as an immediate need during non-business hours, the respective duty officers will discuss the request and make the decision. Any procedures needed to implement this provision of the MOU will be included with those required above.
- 24 Hour Contact Numbers are as follows:  
  
Region 5: 312-353-2318 (telephone)312-353-9176 (fax)  
Region 7: 913-281-0991 (telephone)913-551-7151 (fax)

## **VII. EFFECTIVE DATE**

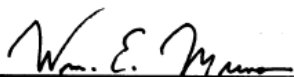
This agreement will be effective upon signature by all the parties, and shall remain in effect until termination by any of the parties. Any party may terminate this agreement upon 90 days written notice to the other parties. The provisions may be reviewed, amended, or supplemented upon agreement of all the parties.

## VIII. DISTRIBUTION

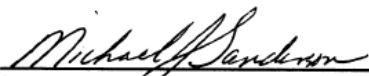
Final signed copies of this agreement shall be distributed as follows:

Removal Managers, Regions 5 and 7  
OSCs, Regions 5 and 7  
USCG Districts  
USCG - National Pollution Fund Center  
Regional Contracting Officer(s), Regions 5 and 7  
Regional Project Officer(s), Regions 5 and 7  
EPA Headquarters, OSWER/OERR Regional Centers 5 and 7  
Regional Contingency Plan (RCP), Regions 5 and 7

## IX. SIGNATURES

  
\_\_\_\_\_  
William E. Muno, Director  
Superfund Division, Region 5, USEPA

Date: 1/31/01

  
\_\_\_\_\_  
Michael J. Sanderson, Director  
Superfund Division, Region 7, USEPA

Date: 2/05/01

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**MEMORANDUM OF UNDERSTANDING  
BETWEEN THE  
U.S. ENVIRONMENTAL PROTECTION AGENCY REGIONS 6 AND 7**

**I. Purpose**

The purpose of this Memorandum of Understanding (MOU) is to establish policy and procedures for a general working agreement between Regions 6 and 7 to create an inter-regional backup system for response support.

**II. Background**

The National Response Framework (NRF) lays out the structure for how the federal government is organized to support States and communities in catastrophic incidents. The NRF builds upon the National Incident Management System (NIMS), which provides a consistent national template for managing incidents. The Environmental Protection Agency (EPA) established the EPA National Approach to Response (NAR) in June 2003 to complement the government-wide National Response Plan (which later became the NRF) and NIMS. The NAR is a multi-faceted approach to help ensure the efficient and effective use of EPA's resources. An important facet of the NAR is the acknowledgment that an effective response requires participation from the entire Agency, not just those offices traditionally responsible for emergency response activities and that an effective response to nationally significant incidents will require readily available national resources to assist a given Region. This MOU establishes an agreement for backup cross-programmatic support between Regions 6 and 7. In addition, this MOU establishes the agreement for backup emergency response support between Regions 6 and 7 to meet the Core ER standard.

**III. Agreement**

It is agreed by the signatories of this MOU that, upon request of the other Region, the backup Region will endeavor to assist the requesting Region in cross-regional support. This MOU will be activated during times of resource shortfalls or as deemed necessary and appropriate under the exigencies of a particular response event or situation.

Under this agreement, the signatory Regions can request support in the form of additional staff, cleanup and technical support contractors, and/or EPA owned equipment. This MOU in no way restricts the undersigned Regions from participating in similar activities or arrangements with other Regions, however it is understood that Regions 6 and 7 will give each other priority status for backup purposes.

In addition, Regions 6 and 7 agree to participate in cross-training and exercises during non-emergency situations. Attached is a copy of the current Region 6 and 7 Preparedness Workplan.

**IV. Procedure**

Response undertaken under this agreement shall be conducted using the principles of the National Incident Management System (NIMS) and shall incorporate incident command system principles. Any Standard Operating Guides (SOG) developed for implementing this agreement shall incorporate NIMS terminology and concepts as appropriate.



The requesting Region shall be responsible for defining the capability requirements for personnel and/or resources, for example: Health and Safety requirements such as Level A capabilities, warranted OSCs, purchase card holders, or certified Incident Management Team positions. The requesting Region will be responsible for providing responding personnel with deployment information such as mobilization points, response structure and contact information.

### **Emergency Conditions:**

Initial notification and requests for cross-regional support should utilize a one-call notification process. Initial notifications will be received via each Region's respective 24-hour regional response line, manned by a phone duty officer, or through the National Response Center (NRC):

Region 6:	1-866-372-7745
Region 7:	1-913-281-0991
NRC:	1-800-424-8802

Initial notification may be from the requesting Region or from other sources such as the Headquarters Emergency Operations Center (HQ EOC) at the Region's request.

### **Superfund Response Personnel:**

Regional Superfund Division Directors have the ultimate authority to approve the use of regional emergency response resources beyond their regional boundaries. The Regional response program supervisor (Removal Manager) or the designated "acting" supervisor has the authority to dispatch emergency response and removal support resources (staff and/or contract resources) in response to a request for cross-regional support.

### **Non-Superfund Response Personnel:**

Superfund Division Directors shall request other resources through the Regional Administrator and the Regional Incident Coordination Team (RICT). Other resources may include resources outside the direct control of the Superfund Division Director and may include assets such as Response Support Corps, water systems response expertise, etc. The Superfund Division Director will notify his respective Regional Administrator whenever a request for such resources has been made.

### **Non-Emergency Conditions:**

Requests for removal site coverage support, participation in cross-training and exercises or other routine or non-emergency situation, generally should be made during business hours between the respective Removal Managers or their designated "acting" supervisors. Each region's respective Removal Manager is responsible for coordinating training and exercises with other regional programs.

## **V. Programming, Budgeting, Funding, and Reimbursement Arrangements**

In mobilizing response resources, contract crossovers may be used if they are determined to be in the best interest of the Government. Any Standard Operating Guides (SOGs) which are developed for cross-over contracting procedures shall be agreed upon by the Regions for use under this MOU.

This MOU is neither a fiscal nor a funding obligation document. However, any endeavor involving contribution of funds will generally be borne by the Region requesting assistance

The Office of Acquisition Management has issued a memorandum (copy attached) which clarifies OSC warrant authority when OSCs are exercising their delegated authority outside of their home Region.

#### VI. Authorities

Emergency response and removal support under this MOU is undertaken pursuant to the responsibilities vested in the EPA under the following statutory authorities, regulations, and Presidential Directives:

The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Re-authorization Act of 1986 (SARA);

The Federal Water Pollution Control Act of 1970 (Clean Water Act), as amended by the Oil Pollution Act of 1990;

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300;

Section 9003 (h) of the Solid Waste Disposal Act (SWDA);

The United States-Mexico Joint Contingency Plan (JCP);

The Homeland Security Act of 2002 and Homeland Security Presidential Directive (HSPD) 5, which established the National Response Plan (NRP) and requires the use of the National Incident Management System for responses governed by the NRP;

The Stafford Disaster Relief Act and amendments, and as further defined in the National Response Plan (NRP) Emergency Support Function Annexes;

Presidential Decision Directive (PDD) 39, "US Policy of Counter-terrorism," and PDD 62, "Combating Terrorism";

as well as any other acts, plans or regulation not listed here under which the authority exists for response activities.

Under Section 104 of CERCLA, the EPA has the authority to respond to a release or threatened release of a hazardous substance, pollutant, or contaminant. Under delegation 14-2 the Regional Administrators may re-delegate to designated On Scene Coordinators the authority to determine the need for emergency response and to approve and initiate removal actions costing up to \$250,000 where site conditions constitute an emergency and up to \$50,000 where site conditions do not constitute an emergency. Regions 6 and 7 have redelegated this authority to their designated OSCs through an appropriate delegation (see attached regional delegations). Similarly, pursuant to Section 311(c) of the Clean Water Act, designated OSCs have been delegated the authority to conduct specific response actions involving the discharge or substantial threat of a discharge of oil. Under this MOU, the signatory Regions agree that the OSCs' delegated authority extends to cross-regional emergency responses involving oil and/or CERCLA hazardous substances, pollutants or contaminants.




VII. Effective Date

This MOU will become effective upon signature by the parties and shall remain in effect until termination by any party hereto. Any party may terminate this MOU upon 90 days written notice to the other party. Its provisions and SOGs will be reviewed annually and amended or supplemented as may be agreed upon mutually.

VIII. Other MOUs

This MOU supersedes the original MOU dated February 8, 2001, and the most current dated 2006, for establishing inter-regional backups. This MOU has no effect on any other MOUs under other Agency programs between the undersigned Regions.

IX. Signatories

  
Samuel Coleman, Director, Superfund Division  
EPA Region 6

12/23/08  
Date

  
Cecilia Tapia, Director, Superfund Division  
EPA Region 7

12/19/08  
Date

Attachments:

- Attachment 1: Regions 6 and 7 Preparedness Workplan
- Attachment 2: OAM Memorandum clarifying OSC warrant authority
- Attachment 3: Regional Delegations Manual, R6-14-2 TN-296 (Region 6)
- Attachment 4: Regional Delegations Manual, R7-14-002 (Region 7)



MEMORANDUM OF UNDERSTANDING  
BETWEEN  
THE U. S. ENVIRONMENTAL PROTECTION AGENCY REGION IV  
AND  
THE U. S. ENVIRONMENTAL PROTECTION AGENCY REGION VII

The purpose of this memorandum is to establish the geographical areas and limits of responsibility of the predesignated On-Scene Coordinator (OSC) for pollution responses. Responses include oil and hazardous substances pursuant to the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and the Oil Pollution Act of 1990.

The common regional boundary is the center line of the Lower Mississippi River (LMSRV). For the purpose of emergency response, the boundary is described as:

The boundary is delineated by the LMSRV and mileage markers published by the U. S. Army Corps of Engineers (USACE). Beginning at Mile 953.8 (confluence of the LMSRV, Ohio River, and the Upper Mississippi River), hence southerly to Mile 828 (intersection of the regional boundary of Environmental Protection Agency (EPA) Regions VI and VII, and the LMSRV).

U. S. Environmental Protection Agency, Region IV:

EPA Region IV is responsible for discharges or releases, or the substantial threat of discharges or releases of a pollutant from a source originating from EPA Region IV into the LMSRV. Responsibility begins at the water line or levee on the Right Descending Bank (RDB), extending to the east. Included are discharges or releases from unknown sources or those classified as "mystery spills".

U. S. Environmental Protection Agency, Region VII:

EPA Region VII is responsible for discharges or releases, or a substantial threat of discharges or releases of a pollutant from a source originating from EPA Region VII into the LMSRV. Responsibility begins at the water line or levee on the RDB, extending to the west. If a discharge or release enters the water, EPA Region VII will be responsible for the response effort.

General: a. Both regions have additional responsibilities when performing duties as the OSC. Included are:

- 1) Notification of:
  - a) Downstream water users.
  - b) U. S. Coast Guard Second District.
  - c) USACE.

2) Notification of each other when a response event has occurred or is anticipated.

b. Either Region, when requested by the other, may assume the functional OSC role for a particular incident. The decision to accept will rest with the Region being requested, on an incident specific basis.

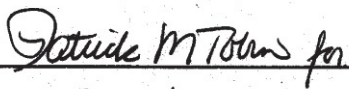
c. When a Region is notified of a discharge or release, or a substantial threat of a discharge or release of a pollutant not in its area of responsibility, it will notify the responsible Region. The reporting Region should assist in assessing the situation and to determine the need for a Federal response.

d. When a representative of either Region is the first Federal official arriving on-scene of a discharge or release not in the area of response responsibility, the representative will notify the responsible Region. The representative will accomplish duties detailed in the NCP pending arrival of the predesignated OSC.

e. Boundary lines do not preclude mutual assistance between the two agencies.

f. Previous Memorandums of Understanding or agreements are replaced by this document. Regional and Area Contingency Plans of the signatory agencies will be amended to reflect the response boundary.

g. This agreement is subject to review and amendment at any time, by request of either party. It will remain in effect until modified or terminated by mutual agreement.



Date: 3-9-94

JOHN H. HANKINSON, JR.  
Regional Administrator  
U. S. Environmental Protection  
Agency, Region IV  
Atlanta, Georgia



Date: 3-21-94

DENNIS GRAMS, P.E.  
Regional Administrator  
U. S. Environmental Protection  
Agency, Region VII  
Kansas City, Kansas

## **ANNEX VIII**

# **MEMORANDUM OF UNDERSTANDING BETWEEN THE CORPORATION FOR NATIONAL AND COMMUNITY SERVICE, UNITED STATES COAST GUARD AND U.S. ENVIRONMENTAL PROTECTION AGENCY**

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**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
U.S. COAST GUARD, U.S. ENVIRONMENTAL PROTECTION  
AGENCY,  
AND  
CORPORATION FOR NATIONAL AND COMMUNITY SERVICE**

**1. PARTIES**

The Parties to this Memorandum of Understanding (MOU) are the United States Coast Guard (USCG), the United States Environmental Protection Agency (EPA) and the Corporation for National and Community Service (CNCS).

CNCS, a wholly-owned United States Government Corporation and executive federal agency of the United States, supports service and volunteering at the national, state and local levels, overseeing three major initiatives: AmeriCorps (including State/National, Volunteers in Service to America (VISTA), and National Civilian Community Corps (NCCC)), Learn and Serve America, and Senior Corps. CNCS programs provide vital support, especially human capital, to the national, state, and local voluntary organizations and public agencies that lead response, relief, and recovery efforts when an incident occurs. In addition, CNCS has specific responsibilities as a support agency within the National Response Framework (NRF). Pursuant to the Stafford Act and other legal authorities cited below, CNCS and its grantees have a record of collaborating with state and local agencies and organizations to support response and recovery efforts.

USCG and EPA provide federal On-Scene Coordinators (OSCs) to respond to discharges of oil and releases of hazardous substances, pollutants and contaminants under Section 311 of the Clean Water Act (CWA) as amended by the Oil Pollution Act of 1990 (OPA), and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The EPA provides OSCs for responses in the inland zone, and the USCG provides OSCs for responses in the coastal zone. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) found in 40 CFR Part 300, contains some of the regulations that implement Section 311 of the CWA and CERCLA, and describes OSC authorities and responsibilities in detail.

**2. AUTHORITY**

The USCG, EPA, and CNCS, enter into this MOU pursuant to 14 U.S.C. § 141; 10 U.S.C. § 1588; 14 U.S.C. § 93(a)(20); 31 U.S.C. § 1342; NCP, 40 CFR Part 300.110; CWA, 33 U.S.C. § 1321; CERCLA, 42 U.S.C. § 9601; Homeland Security Act of 2002, Public Law 107-296; Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. § 5121-5206; the Department of Homeland Security Appropriations Act, 2007, Public Law 109-295; the National and Community Service Act of 1990, 42 U.S.C. § 12651g(b); Executive Order 12148, as amended; and 44 CFR Part 206. Any transfer of funds necessary to carry out this agreement will be under the Economy Act or other appropriate authority.

### **3. PURPOSE**

This MOU between the USCG, EPA, and CNCS describes the major responsibilities of each Party in developing and supporting an unaffiliated volunteer management program to be implemented following an oil or hazardous substance pollution incident as requested by the USCG/EPA OSC.

### **4. RESPONSIBILITIES**

A. USCG and EPA, in fulfilling their mission of coordinating emergency preparedness and response to oil and hazardous substance pollution incidents plan to, as appropriate, include CNCS in ongoing efforts to improve and implement the NCP and NRF procedures related to the use of volunteers, and to assist in educating and training CNCS personnel at the local, state and national levels to provide needed unaffiliated volunteer management assistance for response operations. Specifically, USCG and EPA resolve to:

- 1) Identify appropriate and necessary training and exercises for CNCS staff, program staff, and national service participants to assist CNCS in providing volunteer management assistance for response operations;
- 2) Notify CNCS as soon as possible of requested assistance following an incident. Notification information should include:
  - a. A thorough description of the anticipated volunteer management capabilities necessary to support incident response, and,
  - b. The minimum incident-specific training requirements for responding CNCS assets;
- 3) Subject to Section 7 below, pay the costs, as may be legally appropriate and necessary, through the OSLTF or Interagency Agreements, of transportation, lodging, and meals incurred by CNCS staff, CNCS program staff, and national service participants, salary costs for program staff, and living allowances for national service participants explicitly supporting USCG and EPA response volunteer management operations;
- 4) Pay the costs, as may be appropriate and necessary, through the OSLTF or Interagency Agreements, of necessary tools, equipment, and other supplies for CNCS to perform assigned volunteer management functions during the response; and
- 5) Provide work space and appropriate support for CNCS staff, CNCS program staff, and national service participants temporarily assigned to response volunteer management operations.

B. CNCS, to carry out its role in support of USCG/EPA, plans to engage in planning, coordinating, supporting, and/or assisting in the following preparedness and response activities:

- 1) Provide for coordination and management of unaffiliated volunteers as requested by the USCG/EPS OSC;
- 2) Provide outreach to established voluntary organizations to provide coordination and support services as requested by the USCG/EPA OSC;
- 3) Disseminate information to affected populations in coordination with the Unified Command Joint Information Center;
- 4) Assign appropriate CNCS staff, program staff, and national service participants to support USCG/EPA OSC operations;
- 5) Ensure that all personnel assigned by CNCS to provide services under this MOU are covered by either the Federal Tort Claims Act and the Federal Employees

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Compensation Act, or when CNCS grantees are responding on behalf of CNCS in accordance with the terms and conditions of a CNCS grant or cooperative agreement, that they are covered by liability insurance and occupational accident insurance.

- 6) Develop and provide to the USCG/EPA OSC a specific response plan and budget, including proposed human resources, upon being provided the incident needs by the USCG/EPA OSC [Sect 4.A.2];
- 7) Ensure participation by CNCS staff and national service participants in appropriate Hazardous Waste Operations and Emergency Response (HAZWOPER) training identified by USCG and EPA as necessary to support the volunteer management mission;
- 8) Participate, as available, in preparedness and planning activities such as planning document development; and
- 9) Develop CNCS standard operating procedures (SOP) for response to incidents at the request of the USCG/EPA.

## **5. COMPLIANCE, REPORTING AND DOCUMENTATION**

CNCS will comply with fiscal management and performance requirements and provide USCG/EPA with appropriate supporting expenditure and program management documentation related to fiscal compliance and program performance management in a format and on a schedule mutually established:

- A. For Pollution Removal Funding Authorization (PRFA) supported oil spill incident deployments, CNCS will:
  1. Provide good faith estimates of the total anticipated costs, as needed, with a line item breakdown of the principal expense categories. This need not be more than a single page, and can be provided as an attachment to the PRFA;
  2. Secure advance approval from the USCG/EPA OSC for proposed response costs to be incurred by CNCS when deploying to incident areas. CNCS shall identify individuals who will respond on its behalf; however, the federal OSC maintains the right to refuse services;
  3. Maintain appropriate financial records and supporting documentation to support expenses, and submit final reimbursement claims to USCG or EPA in accordance with the Technical Operating Procedures (TOPs) for resource documentation under OPA 90;
  4. Provide regular reports to the USCG and EPA on activities and accomplishments of deployed national service participants, including a final report on activities and accomplishments at the conclusion of each such deployment; and
  5. Maintain any applicable training, medical surveillance, and/or exposure records pursuant to this MOU and any associated response activities.
- B. CNCS will provide regular reports to USCG and EPA on outcomes of preparedness operations, including training and exercises. Reports will identify specific accomplishments, number of people trained per activity, and outcomes of exercises.
- C. CNCS will ensure that all activities performed under this MOU are in compliance with U.S. Government statutes and regulations, in particular, but not limited to, the Privacy Act, 5 U.S.C. 552a.

## **6. POINTS OF CONTACT:**

### **1. USCG:**

Commandant (CG-5332)  
Office of Incident Management & Preparedness  
U.S. Coast Guard  
2100 Second Street SW, Stop 7363  
Washington, DC 20593-7363  
202-372-2251

### **2. EPA:**

Director, Office of Emergency Management  
Office of Solid Waste and Emergency Response  
1200 Pennsylvania Ave., NW  
Washington, DC 20460  
202-564-8600

### **3. CNCS:**

NCCC Deputy Director for Projects & Partnerships  
1201 New York Ave, NW  
Washington, DC 20525  
cdavenport@cns.gov  
202-606-7516

## **7. OTHER PROVISIONS**

Nothing in this memorandum is intended to conflict with current law or regulation or the directives under which USCG, EPA, and CNCS operate. If a term of this memorandum is inconsistent with such authority, then that term shall be invalid, but the remaining terms and conditions of this memorandum shall remain in full force and effect.

- 1) This MOU does not mandate USCG, EPA or CNCS to undertake any specific level of activity.
- 2) The USCG or the EPA intend to initiate and approve all volunteer management and coordination requests issued to CNCS. When deployed to support a response, participants will operate under the ultimate direction of the USCG's or EPA's federal OSC.
- 3) It is understood that Parties may need to make operational changes quickly during a response and notice to the other Party of such changes may be delayed; however, such notice shall be provided at the earliest possible time and in the most time efficient manner.
- 4) This MOU is not intended to, and does not, create any right, benefit or trust responsibility, substantive or procedural, enforceable at law or equity, by a Party against the United States, its agencies, its officers or any person.
- 5) Nothing in this MOU is intended to restrict the authority of any Party to act as provided by law, statute or regulation.
- 6) Nothing in this MOU requires or implies that USCG, EPA, or CNCS will provide liability or workers' compensation coverage or other accident insurance for volunteers who may engage in response operations.
- 7) Each Party plans to participate in an open exchange of relevant information, as permitted by law (including funding opportunities) which furthers the mission of each organization.



- 8) This MOU is not a fiscal or funds obligation document, nor is it an agreement to pay any expenses or costs of CNCS. All commitments made by the parties to this MOU are subject to the availability of appropriated funds. Volunteer management support carried out by CNCS that may be eligible for reimbursement from USCG or EPA will require the execution of a separate financial instrument in order to pay any such expenses.
- 9) Each Party to this MOU is separate and independent from one another. As such, each organization will retain its own identity in providing services, and each organization is responsible for establishing its own policies.
- 10) While it is the intent of the Parties to cooperate in accordance with this understanding, no Party shall be liable to the other for failure to comply in any way with the provisions and agreements contained in this document.
- 11) Annually, or more often at the request of any Party, representatives of CNCS, USCG, and EPA intend to meet to assess progress in the implementation of the MOU and to make revisions as deemed necessary.
- 12) In the event the EPA or USCG wants to request CNCS volunteer management support for an oil or hazardous substance pollution incident which has occurred as part of a declared major disaster or emergency under the Stafford Act, the EPA or USCG may request CNCS support through FEMA via the following: (1) a Mission Assignment from FEMA to CNCS under the National Response Framework Volunteer and Donations Management Support Annex, developed in consultation with EPA and/or USCG; (2) a Mission Assignment from FEMA to CNCS under Emergency Support Function (ESF) #10, developed in consultation with EPA and/or USCG; or (3) a Mission Assignment subtask from EPA or USCG to CNCS under ESF #10.

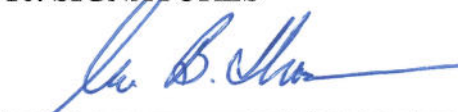
#### 8. EFFECTIVE DATE

This MOU shall be effective from the date it has been signed by representatives of all organizations and shall remain in effect until modified or terminated as below.

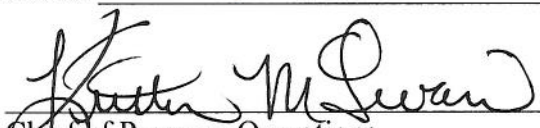
#### 9. MODIFICATION/TERMINATION

This MOU may be modified upon the mutual written consent of the parties. Any Party may terminate its participation in this agreement upon 60 days written notice to the other parties.


#### 10. SIGNATURES

  
\_\_\_\_\_  
Director for Response Policy  
USCG

Dated: 18 November 2010

  
\_\_\_\_\_  
Chief of Program Operations  
Corporation for National and Community Service

Dated: 7/15/2010

  
\_\_\_\_\_  
EPA Assistant Administrator  
Office of Solid Waste and Emergency  
Management Response

Dated: 1/25/11

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## GLOSSARY

### **Administrative support**

Administrative support is cost associated with processing the deployment and reimbursement of assigned incident response activities.

### **AmeriCorps member**

An AmeriCorps member is an individual serving on a full-time or part-time basis in an approved AmeriCorps program and who is eligible to receive an education award or alternative post "Member" service benefit.

### **AmeriCorps\*NCCC (National Civilian Community Corps)**

AmeriCorps\*NCCC is a 10-month, full-time residential AmeriCorps program which combines the best practices of civilian service with the best practices of military service, including leadership development and team-building. NCCC is team-based program for young women and men between the ages of 18 - 24.

### **AmeriCorps\*State and National**

An AmeriCorps program operated by local and national non-profits, local and state government entities, Indian tribes, territories, and institutions of higher education supported by grant funds and providing local service opportunities for AmeriCorps Members.

### **AmeriCorps\*VISTA (Volunteers in Service to America)**

An AmeriCorps program focused on eradicating poverty. Members serve full-time at community-based organizations. Members of AmeriCorps\*VISTA serve full-time with community-based organizations, work and live in the communities they serve, and create or expand programs that can continue after they complete their service.

### **Clean Water Act (CWA)**

The Clean Water Act is the principal federal statute protecting navigable waters and adjoining shorelines from pollution. Section 311 of the CWA addresses pollution from oil and hazardous substance releases, providing EPA and the U.S. Coast Guard with the authority to establish a program for preventing, preparing for, and responding to oil spills that occur in navigable waters of the United States.

### **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)**

CERCLA is one of the statutes that provides the federal government with authorities to respond to the release or threat of release of hazardous substances, pollutants, or contaminants into the environment.

### **Corporation for National and Community Service (CNCS)**

CNCS is a federal agency established under section 191 of the National and Community Service Act (42 U.S.C. 12651).

### **CNCS program staff**

Employees of CNCS grantees and CNCS supported programs that provide direct oversight and support to national service participants deployed to an incident.

### **CNCS staff**

The permanent, and temporary staff of CNCS, not to include State Commissions, grantees, sub-grantees or their staff.

### **Hazardous Waste Operations in Emergency Response (HAZWOPER)**

HAZWOPER is an occupational safety and health standard regarding waste operations planning and training per 29 CFR 1910.120.

### **Incident**

A natural or manmade occurrence or event that requires a response to protect life or property. Incidents can, for example, include major disasters, emergencies, terrorist attacks, terrorist



threats, civil unrest, wild land and urban fires, floods, hazardous materials spills, nuclear accidents, aircraft accidents, earthquakes, hurricanes, tornadoes, tropical storms, tsunamis, war-related disasters, public health and medical emergencies, and other occurrences requiring an emergency response.

**Learn and Serve America**

Learn and Serve America supports and encourages service-learning throughout the United States, and enables over one million students to make meaningful contributions to their community while building their academic and civic skills by providing direct and indirect support to community groups and higher education institutions. Adult volunteers from Colleges and Universities have participated in incident response and long-term recovery projects across the country.

**Living allowance**

A living allowance is a regular payment, not characterized as “wage” or “salary”, which may be provided to AmeriCorps members enrolled and active in an AmeriCorps program.

**National service participant**

An individual who is enrolled in a program funded by CNCS. This includes AmeriCorps members, Senior Corps and Learn and Serve participants.

**Oil Pollution Act (OPA) of 1990**

This legislation addresses a wide range of issues associated with preventing, responding to, and paying for oil pollution. Title 1 of OPA established oil spill liability and compensation requirements, including the Oil Spill Liability Trust Fund to help facilitate cleanup activities and compensate for damages from oil spills. In 1991, the United States Coast Guard created the National Pollution Funds Center (NPFC) to implement Title 1 of OPA, administer the OSLTF, and ensure effective response and recovery.

**Oil Spill Liability Trust Fund (OSLTF)**

OSLTF was created by Congress in 1986 and allows the federal government to collect industry revenue (via a tax) and place it in a fund available to OSCs and federal trustees to ensure rapid, effective response to oil spills. Specific uses of the fund include: removal costs & activities, natural resource damage assessments & restorations, claims for uncompensated removal costs & damages, and research & development. The Energy Policy Act of 2005 increased the maximum size of the Fund from \$1 billion to \$2.7 billion.

**On-scene Coordinator (OSC)**

For purposes of this MOU, the OSC is the federal official designated by the USCG or EPA to coordinate and direct response under Subpart D or E of the NCP.

**Pollution Removal Funding Authorization (PFRA)**

This is a tool available to FOSCs to quickly obtain needed services and assistance from federal, state, local, and tribal government agencies in oil spill and hazardous materials response actions. There are two types of forms (one for federal and one for non-federal agencies). The PFRA commits the OSLTF to payment by reimbursement of costs incurred in pollution response activities undertaken by another government agency working for the FOSC.

**Senior Corps**

Senior Corps taps the skills, talents, and experience of nearly 500,000 Americans age 55 and older to meet a wide range of community challenges through three main programs: RSVP, the Foster Grandparent Program, and the Senior Companion Program.

**Technical Operating Procedures (TOPs)**

TOPs serve as Coast Guard guidance for various Fund users. They provide formatting, forms, and instructions for compiling and submitting documentation efficiently and effectively.

Examples include Response Guidance, State Access Guidance, and Claims Guidance. Each topic has individual PDF available online in the NPFC User Reference Guide.

**Unaffiliated volunteer**

An individual who comes forward following an incident or disaster to assist a governmental agency or non-Governmental Organization (NGO) with response activities during the response or recovery phase without pay or other consideration. By definition, unaffiliated volunteers are not yet associated with a response or relief agency involved in the incident. (Also known as “convergent” or “spontaneous” volunteers.)

**Volunteer**

An individual who offers to support communities affected by an incident without receiving financial reward or remuneration. Volunteers can either be affiliated with other organizations involved in supporting communities affected by an incident or be unaffiliated volunteers. Volunteers are distinct from national service participants in that national service participants receive financial support and direct coordination from CNCS.

## **Addendum 1**

*The following information was noted when the MOU was distributed on March 22, 2011 to the NRT Members and Alternates and RRT Co-Chairs and Coordinators.*

Below are points of contact for CNCS for requests for presentations, planning, or response assistance. Please note also that the CNCS "Point of Contact" information in Section 6.0 of the MOU is out of date because CNCS reorganized after signing it. Please substitute the name of Kelly DeGraff as the MOU Section 6.0 point of contact for CNCS.

CNCS points of contact during regular business hours:

Primary:

Kelly DeGraff, Senior Advisor and Director of Disaster Services  
202-606-6697 (work)  
202-535-2014 (cell)  
[kdegraff@cns.gov](mailto:kdegraff@cns.gov)

Backup:

Phil Shaw, Disaster Service Specialist  
202-606-6697 (work)  
202-491-2305 (cell)  
[pshaw@cns.gov](mailto:pshaw@cns.gov)

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## **ANNEX VIII.B**

# **NATIONAL RESPONSE TEAM USE OF VOLUNTEERS GUIDELINES FOR OIL SPILLS**

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The National Response Team's (NRT) *Use of Volunteers Guidelines for Oil Spills*, updated September 27, 2012, is available at:

<https://www.nrt.org/Main/Resources.aspx?ResourceType=Use%20of%20Volunteers%20for%20Oil%20Spill%20Guidelines%20and%20MOU&ResourceSection=2>

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## **ANNEX IX**

# **MEMORANDUM OF UNDERSTANDING BETWEEN THE U.S. COAST GUARD, U.S. ENVIRONMENTAL PROTECTION AGENCY, AND U.S. DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE – WILDLIFE SERVICES**

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**MEMORANDUM OF UNDERSTANDING BETWEEN THE U.S. COAST GUARD, U.S.  
ENVIRONMENTAL PROTECTION AGENCY, AND U.S. DEPARTMENT OF  
AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION  
SERVICE – WILDLIFE SERVICES**

**ANNEX IX TO REGION 7 INTEGRATED CONTINGENCY PLAN**

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**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
THE DEPARTMENT OF HOMELAND SECURITY UNITED STATES COAST GUARD,  
THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,  
AND  
THE UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE WILDLIFE SERVICES  
REGARDING  
WILDLIFE RESPONSE ACTIVITIES DURING OIL OR HAZARDOUS SUBSTANCE  
POLLUTION INCIDENTS**

**ARTICLE 1  
PARTIES**

This MEMORANDUM OF UNDERSTANDING (MOU) is made and entered into by and between the UNITED STATES COAST GUARD, hereinafter referred to as the USCG, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, hereinafter referred to as the EPA, and UNITED STATES DEPARTMENT OF AGRICULTURE, ANIMAL AND PLANT HEALTH INSPECTION SERVICE-WILDLIFE SERVICES, hereinafter referred to as APHIS-WS.

**ARTICLE 2  
AUTHORITIES**

The Coast Guard enters into this agreement under the authority of: 14 U.S.C. § 93(a)(20); 14 U.S.C. § 141; Federal Water Pollution Control Act, National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. Part 300; CERCLA, 42 U.S.C. § 9601-9675, Executive Order 12580, as amended and Executive Order 12777 as amended.

EPA enters into this MOU pursuant to: the NCP, 40 CFR Part 300; CWA, 33 U.S.C. § 1321; CERCLA, 42 U.S.C. § 9601-9675; Executive Order 12580, as amended, and Executive Order 12777, as amended.

APHIS-WS, enter into this MOU pursuant to: 7 U.S.C § 426, 426(b), 426 (c); NCP, 40 CFR Part 300.110; CWA, 33 U.S.C. § 1321; CERCLA, 42 U.S.C. § 9601-9675 and 44 CFR Part 206.

In addition, this MOU is consistent with the following Acts, Executive Orders, and administrative plans:

- Bald and Golden Eagle Protection Act of 1940 (16 U.S.C. §§ 668-668d)
- Endangered Species Act of 1973 (16 U.S.C. §§ 1531-1544)
- Federal Land Policy and Management Act of 1976 (43 U.S.C. § 1701-1785)
- Fish and Wildlife Act of 1956 (16 U.S.C. § 742a et seq.)

- Fish and Wildlife Conservation Act of 1980 (16 U.S.C. § 2901-2911)
- Migratory Bird Treaty Act of 1918 (16 U.S.C. § 703-712)
- Multiple-Use Sustained-Yield Act [of 1960] (16 U.S.C. §§ 528-531)
- National Environmental Policy Act of 1969 (42 U.S.C. § 4321-4370d)
- Responsibilities of Federal Agencies to Protect Migratory Birds, Executive Order No.13186, signed 2001, 66 Fed. Reg. 3853 (Jan. 17, 2001)
- Fish and Wildlife Coordination Act
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- National Oil and Hazardous Substances Pollution Contingency Plan (NCP)
- National Response Framework (NRF)
- National Incident Management System (NIMS)

### USCG and EPA

USCG and EPA provide federal on-scene coordinators (OSCs) to respond to discharges of oil and releases of hazardous substances, pollutants and contaminants under Section 311 of the Clean Water Act (CWA) as amended by the Oil Pollution Act of 1990 (OPA), and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The EPA provides federal OSCs for responses in the inland zone, and USCG provides federal OSCs for responses in the coastal zone. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) found in 40 CFR Part 300 describes federal OSC authorities and responsibilities in detail.

### APHIS-WS

APHIS-WS has statutory authority under the Act of March 2, 1931 (46 Stat.1468; 7 U.S.C. 426-426b), as amended, and the Act of December 22, 1987 (101 Stat. 1329-331, 7 U.S.C. 426c), to cooperate with States, local jurisdictions, individuals, public and private agencies, organizations, and institutions while conducting a program of wildlife damage management, involving mammal and bird species that are reservoirs for zoonotic diseases or animal species that are injurious and/or a nuisance to, among other things, agriculture, horticulture, forestry, animal husbandry, wildlife, and human health and safety. Additionally 40CFR300.175 (6) (iv) specifies APHIS can respond in emergency situations to regulate movement of diseased or infected organisms, including animals. APHIS-WS has statutory authority to assist the federal OSC during response in supporting government oversight and management of wildlife response strategies. Specifically, to address wildlife issues that threaten the Nation's agricultural and natural resources, human health and safety, and/or property. APHIS-WS also has expertise with the humane capture, handling, hazing, and transport of wildlife impacted by an oil or hazardous substance pollution incident. However, APHIS is not staffed or funded to execute this activity as part of its statutory mission. Therefore, APHIS-WS would require funding from the federal OSC to execute this activity if called upon to do so during an incident.



### ARTICLE 3 PURPOSE

The purpose of this MOU is (1) to enhance cooperation, efficiency and effectiveness of wildlife response activities during oil or hazardous substance pollution incidents; (2) to strengthen the cooperative approach to oil or hazardous substance pollution response through exchange of information and mutual program support; (3) to recognize working relationships with relevant Federal agencies; and (4) formally acknowledge that APHIS-WS, as a Federal agency, has specialized tools and procedures, along with trained staff, and can provide assistance to capture, handle, haze, and transport wildlife during incidents involving oil or hazardous substance pollution response.

### ARTICLE 4 RESPONSIBILITIES

TO IMPLEMENT THE FOREGOING, the parties intend the following when a spill requires a wildlife response:

USCG intends:

1. To fulfill its mission of coordinating emergency preparedness and response to actual, or substantial threat of, oil discharges and hazardous substance release, as appropriate, include APHIS-WS in efforts to improve and implement the NCP and NRF procedures related to wildlife response.
2. To advise all of its District Commanders, predesignated federal OSCs, and Regional Response Team (RRT) members of the terms of this MOU.
3. To request APHIS-WS when needed to support oversight and management of wildlife response strategies at one or more incident command posts during an event. In such instance the APHIS-WS personnel will be working under their own authorities and funding.
4. To issue a Statement of Work (SOW) under a Pollution Removal Funding Authorization (PRFA), when deemed appropriate by the federal OSC, utilizing the Oil Spill Liability Trust Fund (OSLTF) or other appropriate funding authority when APHIS-WS is requested to provide additional expertise in the field engaging in the humane capture, handling, hazing, transport and so forth of wildlife impacted by an oil or hazardous substance pollution incident. A PRFA specifies a definite budgetary ceiling and a definite period of performance for accomplishing the SOW. The PRFA's SOW, budget, and period of performance may only be amended upon the express authorization of the federal OSC and documented on a PRFA Amendment signed by the federal OSC. Funding may be provided for services consistent with the NCP

and requested by the federal OSC. Cost documentation must meet National Pollution Funds Center (NPFC) standards for reimbursement. Cost documentation will be submitted in accordance with the time frames specified in the PRFA.

5. To assure appropriate language as jointly agreed to and provided by APHIS-WS is included in coastal Area Contingency Plans in regards to the number of trained APHIS-WS personnel and accompanying equipment available to support responses as described in paragraphs 3 and 4 above.
6. To notify APHIS-WS of potentially relevant oil spill and hazardous substance response training and exercises at the national, state, regional and local level.
7. To notify APHIS-WS as soon as possible of requested assistance following an incident with details generally coordinated via the Wildlife Branch within the Incident Command System (ICS).

EPA intends:

1. To fulfill its mission of coordinating emergency preparedness and response to potential or actual substantial oil discharges and hazardous substance releases as appropriate, and include APHIS-WS in ongoing efforts to improve and implement the NCP and NRF procedures related to wildlife response.
2. To advise all of its predesignated federal OSCs, National Response Team (NRT) and Regional Response Team (RRT) members of the terms of this MOU.
3. To issue a Statement of Work under a Pollution Removal Funding Authorization (PRFA), when deemed appropriate by the federal OSC utilizing the Oil Spill Liability Trust Fund (OSLTF), or an Interagency Agreement (IA) utilizing CERCLA funds when deemed appropriate by the federal OSC or the EPA, when APHIS-WS is requested to provide additional expertise in the field engaging in the humane capture, handling, hazing, transport and so forth of wildlife impacted by an oil or hazardous substance pollution incident.
4. A PRFA and IA specifies a definite budgetary ceiling and a definite period of performance for accomplishing the SOW. The Statement of Work, budget, and period of performance may only be amended upon the express authorization of the federal OSC and documented on an Amendment signed by the federal OSC. Funding may be provided for services consistent with the NCP and requested by the federal OSC, or in the case of CERCLA



funded response, when requested by the federal OSC and approved by the EPA or lead agency. Cost documentation must meet National Pollution Funds Center (NPFC) standards for OSLTF reimbursement and EPA standards for CERCLA reimbursement. When requesting reimbursement from OSTLF or CERCLA, cost documentation will be submitted in accordance with the time frames specified in the PRFA or the IA, respectively.

5. To assure appropriate language is included in inland Area Contingency Plans in regards to the number of trained APHIS-WS personnel and accompanying equipment that are listed.
6. To notify APHIS-WS of potentially relevant oil spill and hazardous substance response training at the national, state, regional, and local level.
7. To notify APHIS-WS as soon as possible of requested assistance following an incident with details generally coordinated via the Wildlife Branch within the Incident Command System (ICS).

APHIS-WS intends:

1. To provide appropriate language for inclusion in Area and Regional Contingency plans in regards to the number of trained APHIS-WS personnel and accompanying equipment available to support response in accordance with the provisions of this MOA.
2. To provide or furnish USCG and EPA OSCs with technical expertise in accordance with its own authorities and funding.
3. To provide assistance via PRFA or IA request with respect to wildlife capture, handling, transport and hazing techniques to prevent wildlife from becoming oiled or contaminated by a hazardous substance in accordance with the provisions and procedures outlined in applicable Area and Regional Contingency Plans.
4. To provide assistance to the EPA via an Interagency Agreement, during a CERCLA funded response, with respect to wildlife capture, handling, transport and hazing techniques to prevent wildlife from becoming contaminated by a hazardous substance, or prevent the spread of contaminated wildlife to non-impacted areas, in accordance with the provisions and procedures outlined in the SOW as well as applicable Area and Regional Contingency Plans.

5. To meet the site-specific financial management and record keeping responsibilities by organizing and retaining in a site file documentation of costs by site and activity (e.g., vouchers, billing statements, evidence of payment, audit reports).
6. To participate in and support the Incident Command System (ICS) response organization (e.g., Operations and/or Planning Section) as determined appropriate by the federal OSC/Unified Command to provide for the coordination and management of APHIS-WS staff in accordance with the provisions and procedures outlined in applicable Area and Regional Contingency Plans and spill specific Incident Action Plans and Wildlife supplements.
7. To disseminate information as directed by the federal OSC or UC, generally via the Wildlife Branch of the ICS, in accordance with the provisions and procedures outlined in applicable Area and Regional Contingency Plans.
8. To ensure APHIS-WS staff participating in response have appropriate Hazardous Waste Operations and Emergency Response (HAZWOPER) training to support the mission.
9. To participate, as available, in preparedness and planning activities, such as, RRT meetings, area committee meetings and National, Regional, State and local exercises.
10. To notify appropriate Federal, state, local, and tribal agencies prior to conducting wildlife response activities.
11. To comply with fiscal management and performance requirements and to provide the federal OSC with supporting expenditure and program management documentation related to fiscal compliance and program performance management in a format that is acceptable to USCG or EPA.
12. To complete required documentation and reports generally via the Wildlife Branch of the ICS, in a timely manner as mutually determined for a specific spill or release response.



## ARTICLE 5 OTHER PROVISIONS

USCG, EPA and APHIS-WS mutually understand that:

1. This MOU instrument in no way restricts USCG, EPA or APHIS-WS from participating in similar activities with other public or private agencies, organizations, and individuals. Similarly, nothing in this MOU is intended to modify in any manner the present cooperative programs of each agency with States, other public agencies, or educational institutions.
2. In collaborative activities and programs, USCG, EPA and APHIS-WS should recognize cooperative efforts by endeavoring to display each other's logos in a manner that is approved by the principal contacts of each party in accordance with agency procedures.
3. As required by the Antideficiency Act, 31 U.S.C. 1341 and 1342, all commitments made by EPA and USCG and APHIS-WS in this MOU are subject to the availability of appropriated funds and budget priorities. Nothing in this MOU, in and of itself, obligates EPA, USCG, or APHIS-WS to make any specific request for services to any agency, to expend appropriations or to enter into any contract, assistance agreement, interagency agreement, or incur other financial obligations. Any transaction involving transfers of funds between the parties to this MOU will be handled in accordance with applicable laws, regulations, and procedures under separate written agreements.
4. Nothing in this MOU is intended to conflict with current law or regulation or directives under which USCG, EPA, and APHIS-WS operate. If a term of this memorandum is inconsistent with such authority, then that term shall be invalid, but the remaining terms and conditions of this MOU shall remain in full effect.
5. When APHIS-WS is deployed to support a federal response which is directed by USCG or EPA, participants will operate under the ultimate direction of the federal OSC and all wildlife oil spill or hazardous substance response activities will be coordinated with the appropriate Federal, state, local and tribal agencies.
6. Each Party plans to participate in an open exchange of relevant information, as permitted by law (including funding opportunities), which furthers the mission of each organization.

7. Each Party to this MOU is separate and independent from one another. As, such, each organization will retain its own identity in providing services, and is responsible for establishing its own policies.

## ARTICLE 6 POINTS OF CONTACT

The principal contacts for this agreement are:

USCG  
Mary E. Landry, USCG  
Commandant  
Director of Incident Management and Preparedness Policy  
U.S. Coast Guard  
2100 Second Street SW, Stop 7363  
Washington, DC 20593-7363  
Phone: 202-372-2234

EPA  
Lawrence M. Stanton  
Director, Office of Emergency Management  
Office of Solid Waste and Emergency Response  
1200 Pennsylvania Ave., NW  
Washington, DC 20460  
Phone: 202-564-8600

APHIS- WS  
William H. Clay  
Deputy Administrator  
USDA, Animal & Plant Health Inspection Service, Wildlife Services  
1400 Independence Avenue, SW  
Room 1624 South Agriculture Building  
Washington, D.C. 20250-3402  
Phone: 202-799-7095

## ARTICLE 7 STATEMENT OF NO FINANCIAL OBLIGATION

Nothing in this MOU, in and of itself, obligates the Parties to expend appropriations or to enter into any contract, assistance agreement, interagency agreement, or incur other financial obligations. The Parties agree not to submit a claim for compensation for services rendered in connection with any activities it carries out in furtherance of this MOU. Each signatory party is to use and manage its own funds in carrying out the purpose of this MOU. Transfers of funds or items of value are not authorized under this MOU.

## ARTICLE 8 LIMITATIONS OF COMMITMENT

This MOU and any continuation thereof shall be contingent upon the availability of funds appropriated by the Congress of the United States. It is understood and agreed that EPA, USCG, and APHIS-WS intend that if any monies allocated for purposes covered by this MOU that such monies be expended in accordance with its terms and the manner prescribed by the fiscal regulations and/or administrative policies of the party making the funds available. If fiscal resources are to transfer, a separate agreement must be developed by the parties.

## ARTICLE 9 CONGRESSIONAL RESTRICTION

Under 41 U.S.C. 22, no member of, or delegate to, Congress shall be admitted to any share or part of the MOU or to any benefit to arise there from.

## ARTICLE 10 LIABILITIES

APHIS-WS will hold the Parties to the Agreement harmless from any liability arising from the negligent act or omission of the APHIS-WS officer or employee acting within the scope of his or her employment to the extent compensation is available pursuant to the Federal Tort Claims Act (FTCA), 28 U.S.C. 2671 et seq., except to the extent that aforesaid liability arises from the negligent acts or omissions of the Parties to the Agreement, its employees, agents or subcontractor, and employees or agents of the subcontractor(s). Such relief shall be provided pursuant to the procedures set for in the FTCA and applicable regulations.



ARTICLE 11  
REPORTING AND DOCUMENTATION

This MOU does not require follow-up reports or documentation of actions taken.

ARTICLE 12  
AMENDMENTS

This MOU may be amended at any time by mutual agreement of the parties in writing.

ARTICLE 13  
TERMINATION

This MOU may be terminated by any signatory party upon sixty (60) days written notice to the other party.

ARTICLE 14  
NO PRIVATE RIGHT OF ACTION

This MOU does not create any right or benefit, substantive or procedural, enforceable by law or equity, by persons who are not party to this agreement, against USCG or APHIS-WS or EPA, their officers or employees, or any other person. This MOU does not direct or apply to any person outside of EPA, USCG, and APHIS-WS.



ARTICLE 15  
EFFECTIVE DATE AND DURATION

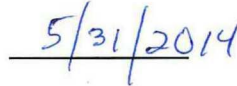
This MOU will be in effect upon date of final signature and will continue until it is terminated by written agreement of the parties. Ending date must not exceed 5 years from date of final signature. This MOU may be extended upon written request of the USCG, EPA, or APHIS-WS and the subsequent written concurrence of the other(s).

IN WITNESS WHEREOF, the parties hereto have executed this MOU as of the last written date below.

APPROVED BY:


DATE:

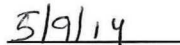
  
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Director of Incident Management and  
Preparedness Policy  
(CG-5RI)  
U.S. Coast Guard

  
\_\_\_\_\_  
5/31/2014

  
\_\_\_\_\_  
Deputy Administrator  
U.S. Department of Agriculture, Animal  
and Plant Health Inspection Service,  
Wildlife Services

  
\_\_\_\_\_  
6/27/14

  
\_\_\_\_\_  
Director, Office of Emergency Management  
Office of Solid Waste and Emergency Response  
US Environmental Protection Agency

  
\_\_\_\_\_  
5/9/14

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