

EMERGENCY RESPONSE ACTION PLAN

Premcor Hammond Terminal



Prepared for:

**The Premcor Pipeline Company
One Valero Way
San Antonio, Texas 78249**

Prepared by:

O'Brien's Response Management Inc.
6620 Cypresswood Drive, Suite 200
Spring, TX 77379
Phone: (281) 320-9796 | Fax: (281) 320-9700
www.obriensrm.com

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FIGURE 1.1

FACILITY INFORMATION

| GENERAL INFORMATION | | |
|--------------------------------------|--|---|
| Facility Name: | Premcor Hammond Terminal | |
| | Physical Address | Mailing Address |
| | 1020 141st Street Hammond, Indiana 46320 | 1020 141st Street Hammond, Indiana 46320 |
| 24 hr Telephone #: | (708) 259-4265 | |
| Fax #: | (219) 931-2739 | |
| EPA FRP #: | 0500327 | |
| DOT OPS Tracking: | 1462 | |
| NAICS: | 424710 | |
| (b) (7)(F), (b) (3) | | |
| Dunn & Bradstreet Number: | 10-691-7730 | |
| Company: | Owner: Physical Address | Operator: Physical Address |
| | The Premcor Pipeline Company One Valero Way San Antonio, Texas 78249 | Valero Terminaling and Distribution One Valero Way San Antonio, Texas 78249 |

| FACILITY LOCATION | | |
|--|--|---|
| County: | Lake | |
| Area Map: | See Map at end of ERAP | |
| Facility Diagram: | See Map at end of ERAP | |
| Wellhead Protection Area: | N/A | |
| Facility Distance to Navigable Water: | <input type="checkbox"/> 0 - 1/4 mile | <input type="checkbox"/> 1/2 - 1 mile |
| | <input type="checkbox"/> 1/4 - 1/2 mile | <input checked="" type="checkbox"/> >1 mile |
| Landside Directions: | O'Hare Airport: Take I-294 (Toll), S toward Indiana. After the 163rd St. Toll booth, SB I-294 merges into EB I-80. Continue E on I-80. After I-80 passes the interchange with I-94, the road becomes I-80/94. Midway Airport: Turn S on Cicero Ave. (the N/S street that passes in front of the airport). Proceed S until Cicero meets I-294 (Toll). Take I-294 S toward Indiana. After the 163rd St. Toll booth, SB I-294 merges into EB I-80. Continue E on I-80. After I-80 passes the interchange with I-94, the road becomes I-80/94. From the West: Take I-80/94 E into Indiana. Take the N. Calumet Ave. exit, proceed N on N. Calumet Ave. to 141st St. Make a R turn, go over the toll road. The first bldg. on the R is the main Terminal Ofc. From the East: Take I-80/94 W toward Chicago. Take the N. Calumet Ave. exit, proceed N on N. Calumet Ave. to 141st St. Make a R turn, go over the toll road. The first bldg. on the R is the main Terminal Ofc. | |
| Waterside Directions: | N/A | |

QUALIFIED INDIVIDUAL

Certification:

The Company grants full authority to the designated Qualified and Alternate Qualified Individuals to implement the Facility Response Plan and to:

- Activate and engage in contacting with oil spill removal organizations,
- Act as liaison with the pre-designated Federal On-Scene Coordinator (OSC), and
- Obligate funds required to carryout response activities.

Qualified Individual:

| | | |
|-----------------|------------------|---|
| Casey McConnell | Manager Terminal | 17082594265 (24 Hr.) (b) (6) 17082594265 (Cellular) |
|-----------------|------------------|---|

Alt. Qualified Individual:

| | | |
|------------|----------------------|---|
| Andy Szabo | Sr Mgr Area Terminal | 13145752852 (24 Hr.) (b) (6) 13145752852 (Cellular) |
|------------|----------------------|---|

| | | |
|-------------|-----------------------|---|
| Glenn Hodge | Pipeline Operator III | 17089323588 (24 Hr.) (b) (6) 17089323588 (Cellular) |
|-------------|-----------------------|---|

PHYSICAL DESCRIPTION - GENERAL

Description of Operation:

- The Facility stores gasoline, fuel oils, and gasoline additives. The Facility has a total storage capacity of (b) (7)(F), (b) (3) an average storage volume of (b) (7)(F), (b) (3). Daily throughput is approximately 50,000 Bbls. The Facility has a total of 15 aboveground storage tanks and underground storage tanks. Nine (9) of the 15 aboveground storage tanks are regulated by the EPA while eight (8) are used for breakout storage and therefore, are regulated by the DOT. The (b) (7)(F), (b) (3). Product is received primarily through pipeline and is shipped primarily into pipelines. Gasoline additives are received by tank truck and are injected at the rack as trucks load. The truck rack consists of two (2) loading stations and one (1) unloading station.
- The Facility's total aboveground (b) (7)(F), (b) (3) ns. Daily throughput is approximately 50,000 barrels per day.
- There are a total of 15 aboveground storage tanks. The (b) (7)(F), (b) (3).
- The Facility operates 24/7 hours of operation.
- The Facility's Worst Case Discharge amount: (b) (7)(F), (b) (3)

Date of Initial Storage: 1958

Products Handled:

- Petroleum Products
- Fuel Oil
- Ethanol

Note:A Product Specific Response Consideration sheet is provided at the end of Section 3.0. The Facility also maintains MSDS reference information on the products stored.

PHYSICAL DESCRIPTION - DOT/PHMSA OPERATIONS

General Pipeline Operations:

The Hammond Facility consist of the following breakout tanks: Breakout Tanks 1, 2, 3, 5, 6, 7, 8 & 9. The Alsip Facility consist of the following breakout tanks: Breakout Tanks 44, 56, 804, 806. Informational Summary for Pipeline Response Zone: Since all maintenance / operational functions are conducted by Company personnel located at the Facility, a single Response Zone (U.S. DOT PHMSA response planning requirement under OPA 90) has been developed. The Response Zone includes Cook County, IL and Lake County, IN. Below is the list of lines covered in the single Response Zone.

OneOK

OneOK Clark Kedzie Station to Alsip Distribution Center (6 in)

This Pipeline was constructed in pre 1970

500 ft

Calumet Sag Channel

Alsip Distribution Center to Calumet Sag Channel (8 in)

This Pipeline was constructed in pre 1970

517 ft

Robbins

South side of Calumet Sag Channel to Harrison Avenue (8 in)

This Pipeline was constructed in pre 1970

5,317 ft

Midlothia Creek / Little Calumet River

Harrison Avenue to west side of Ashland Avenue (8 in)

This Pipeline was constructed in pre 1970

8,796 ft

Ashland Avenue

West side of Ashland Avenue to East side of Ashland Avenue (8 in)

This Pipeline was constructed in pre 1970

308 ft

Riverdale / Calumet City

East side of Ashland Avenue to West side of Grand Calumet River (8 in)

This Pipeline was constructed in pre 1970

37,122 ft

Grand Calumet River

West side of Grand Calumet River to East side of Grand Calumet River (8 in)

This Pipeline was constructed in pre 1970

466 ft

Hammond, IN

East side of Grand Calumet River to Hammond Terminal (8 in)

This Pipeline was constructed in pre 1970

9,699 ft

East Chicago

East side of Hammond Terminal to East Chicago Bull Pen (12 in)

This Pipeline was constructed in pre 1970

6,336 ft

305 Manifold/800 Tank Farm

305 Manifold to 800 Tank Farm (20 in)

This Pipeline was constructed in pre 1970

1,887 ft

PHYSICAL DESCRIPTION - TRUCK AND RAIL TRANSFER**Truck Rack****Description of Operation:**

The Facility is equipped with two (2) loading spots which handle various grades of gasoline and fuel oil. The loading/unloading operations are conducted on a 24 hour/7 day per week basis.

Loading Rate: 550 - 800 gpm (per truck/per loading spot)

Largest Truck Capacity: 9,000 gallons (maximum)

Discharge Prevention:

The sloped and curbed concrete slab drains directly to a below ground spill collection tank.

Methods/Equipment to prevent premature vehicle departure

- Truck Interlock System

Gasoline Additives and Ethanol are unloaded periodically at the Facility across the truck rack.

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS

- **1958:** Added two tanks (Tks 3 & 4).
- **1968:** Added one tank (Tk 5).
- **1970:** Added one tank (Tk 7).
- **1971:** Added one tank (Tk 6).
- **1974:** Added two tanks (Tks 8 & 9) (Tk 10 built in 1953).
- **2004:** Change of owner to the Premcor Pipeline Company, Inc.
- **2005:** Added Tank 11.

OTHER FACILITY DATA

Additional facility data (including storage information) and discharge detection and inspection information is provided in the SPCC. The Certification of the Applicability of the Substantial Harm Criteria and Information contained on the Response Plan Cover required by 40 CFR 112.20 are located in the Foreword Section and Figure 1.1 respectively. Alsip, IL DOT Breakout Tanks associated with DOT Facility Response Plan: (1) Tank ID #44, Maximum Capacity (Gallons) (b) (7)(F); (2) Tank ID #47, Maximum Capacity (Gallons) (b) (7)(F), (3) Tank ID #56, Maximum Capacity (Gallons) (b) (7)(F), (b) Tank ID #806, Maximum Capacity (Gallons) (b) (7)(F),

FIGURE 2.1

INTERNAL NOTIFICATION REFERENCES

| INTERNAL NOTIFICATIONS - QUALIFIED INDIVIDUALS | | | | |
|--|------------------|-------------|---------|---------|
| NAME/ POSITION/TITLE | RESPONSE TIME | OFFICE | HOME | OTHER |
| Casey McConnell Manager Terminal | 1 Hour | 12199317410 | (b) (6) | (b) (6) |
| Andy Szabo Sr Mgr Area Terminal | 4-5 Hours | 19019478479 | (b) (6) | (b) (6) |
| Glenn Hodge Pipeline Operator III | 1 Hour | 12199315620 | (b) (6) | (b) (6) |

| INTERNAL NOTIFICATIONS - INCIDENT MANAGEMENT TEAM | | | | |
|---|------------------|-------------|---------|---------|
| NAME/ POSITION/TITLE | RESPONSE TIME | OFFICE | HOME | OTHER |
| Andy Szabo Sr Mgr Area Terminal | 4-5 Hours | 19019478479 | (b) (6) | (b) (6) |
| Casey McConnell Manager Terminal | 1 Hour | 12199317410 | | |
| Glenn Hodge Pipeline Operator III | 1 Hour | 12199315620 | | |
| Jay Ross Lead HSE Specialist | 4-5 Hours | 16182555105 | | |

| INTERNAL NOTIFICATIONS - CORPORATE EMERGENCY TEAM STAFF | | | | |
|--|------------------|-------------|---------|---------|
| NAME/ POSITION/TITLE | RESPONSE TIME | OFFICE | HOME | OTHER |
| David Amosky Director Regional Env & Reg Affairs | >1 Hour | 12103455874 | (b) (6) | (b) (6) |
| Jeremy Bergeron VP Insurance | >1 Hour | 12103452312 | | |
| Bill Day Exec Director Media Relations | >1 Hour | 12103452928 | | |
| Deepak Garg VP Environmental,Regulatory&LogisticsHSE | >1 Hour | 12103452181 | | |
| Theo Guidry SVP Business Risk Management | >1 Hour | 12103452048 | | |
| Eric Honeyman VP Regional Refinery Operations | >1 Hour | 12103453694 | | |
| James Pursell Director Health, Safety & Emergency Prep | >1 Hour | 12103453054 | | |
| Kirk Saffell SVP Health, Safety & Environmental | >1 Hour | 12103452169 | | |

FIGURE 2.2

OIL SPILL REMOVAL ORGANIZATIONS

| USGC CLASSIFIED OIL SPILL REMOVAL ORGANIZATIONS (OSRO) | | | |
|--|---------------|-----------------------|----------------|
| COMPANY | RESPONSE TIME | LOCATION | TELEPHONE |
| National Response Corporation | 1 Hour | Great River, New York | (800) 899-4672 |

| ADDITIONAL RESPONSE RESOURCES | | |
|--|----------------------------|----------------|
| Planning and Incident Support | | |
| COMPANY | LOCATION | TELEPHONE |
| O'Brien's Response Management Inc. | Houston, Texas | (281) 320-9796 |
| Eagle Environmental Services (for vacuum trucks) | Chesterton, Indiana | (219) 763-1111 |
| International Bird Rescue and Research | Cordelia, California | (707) 207-0380 |
| Jarrett Industries | South Roxana, Illinois | (618) 325-8083 |
| Marine Spill Response Corporation (MSRC) | Edison, New Jersey | (800) 259-6772 |
| Onyx Environmental Services (for hazardous materia | East Chicago, Illinois | (219) 391-6705 |
| Onyx Environmental Services (for sludge waste disp | Sauget, Illinois | (618) 271-2804 |
| Premcor Insurance Representative | Old Greenwich, Connecticut | (203) 698-7551 |
| Siebert Engineering, Inc: Pipeline Surveyor | Lombard, Illinois | (630) 268-0020 |
| Waste Management (for lined waste containers) | Chicago, Illinois | (708) 422-2225 |
| Waste Management Laraway (for petroleum contaminat | Elwood, Illinois | (815) 727-6148 |

FIGURE 2.3

| NOTIFICATION DATA SHEET | | | |
|---|--------------------------|---|--|
| Date: _____ | | Time: _____ | |
| INCIDENT DESCRIPTION | | | |
| Reporter's Full Name: _____ | | Position: _____ | |
| Day Phone Number: _____ | | Evening Phone Number: _____ | |
| Company: Valero Terminaling and Distribution | | Organization Type: _____ | |
| Facility Address: 1020 141st Street Hammond, Indiana 46320 | | Owner's Address: One Valero Way San Antonio, Texas 78249 | |
| (b) (7)(F), (b) (3) | | | |
| Spill Location (if not at Facility): _____ | | | |
| Responsible Party's Name: _____ | | Phone Number: _____ | |
| Responsible Party's Address: _____ | | | |
| Source and/or cause of discharge: _____ | | | |
| Nearest City: Hammond, IN | | | |
| County: Lake | State: Indiana | Zip Code: 46320 | |
| Section: _____ | Township: _____ | Range: _____ | |
| Distance from City: _____ | | Direction from City: _____ | |
| Container Type: _____ | | Container Storage Capacity: _____ | |
| Facility Oil Storage Capacity: _____ | | | |
| Material: _____ | | | |
| Total Quantity Released | Water Impact (YES or NO) | Quantity into Water | |
| | | | |
| | | | |
| RESPONSE ACTION(S) | | | |
| Action(s) taken to Correct, Control, or Mitigate Incident: _____ | | | |
| Number of Injuries: _____ | | Number of Deaths: _____ | |
| Evacuation(s): _____ | | Number Evacuated: _____ | |
| Damage Estimate: _____ | | | |
| More information about impacted medium: _____ | | | |
| | | | |
| CALLER NOTIFICATIONS | | | |
| National Response Center (NRC): | | 1-800-424-8802 | |
| Additional Notifications (Circle all applicable): USCG EPA State OSHA Other _____ | | | |
| NRC Incident Assigned No. _____ | | | |
| ADDITIONAL INFORMATION | | | |
| Any information about the incident not recorded elsewhere in this report: _____ | | | |
| | | | |
| | | | |
| | | | |
| NOTE: DO NOT DELAY NOTIFICATION PENDING COLLECTION OF ALL INFORMATION. | | | |

FIGURE 2.4
EXTERNAL NOTIFICATION FLOWCHART

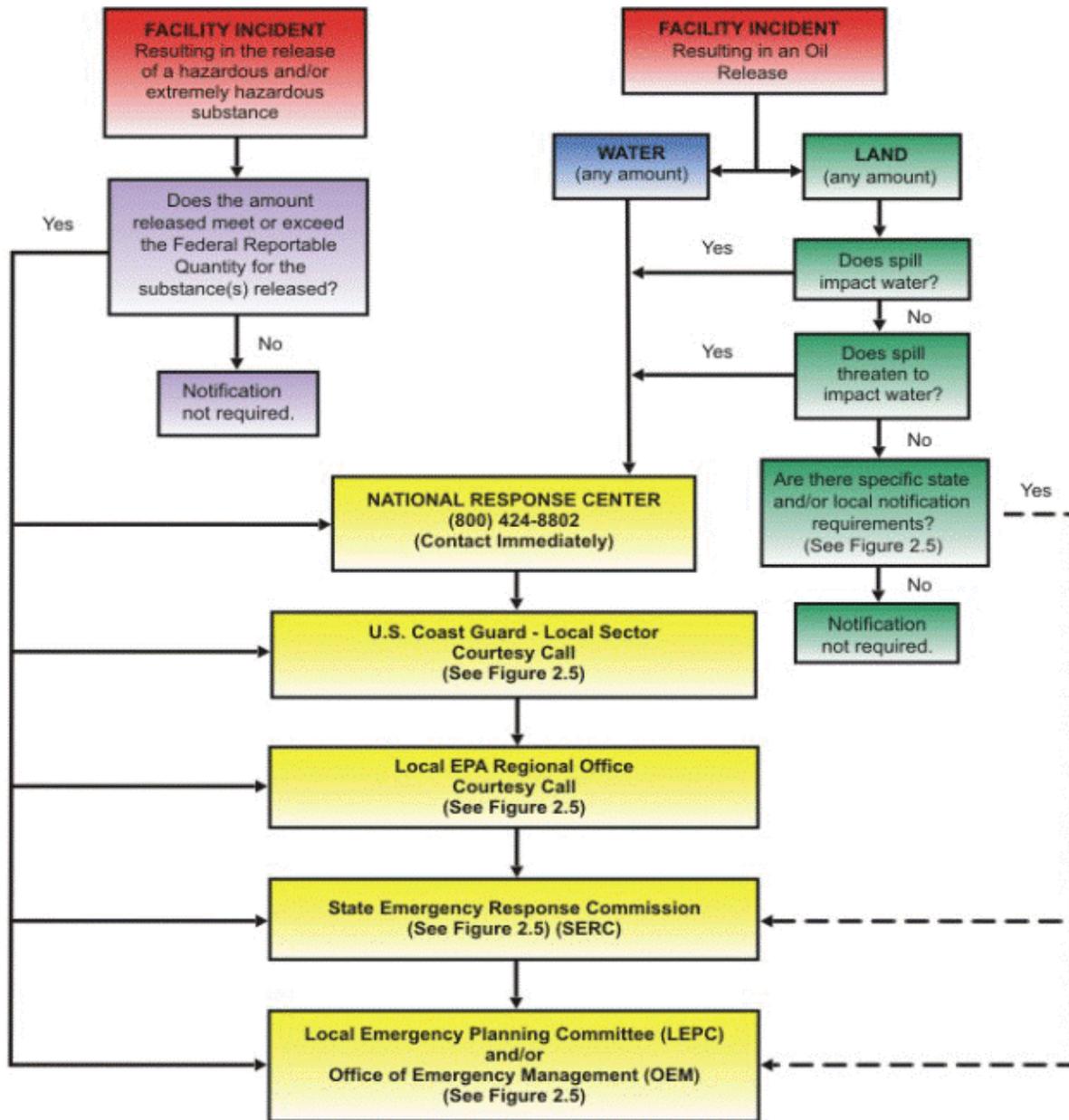


FIGURE 2.5**EXTERNAL NOTIFICATION REFERENCES**

| REQUIRED NOTIFICATIONS | |
|--|---|
| National Response Center (NRC) | |
| c/o United States Coast Guard (CG-3RPF-2), 2100 2nd Street Southwest Room 2111-B Washington, District Of Columbia 20593-0001 | (800) 424-8802 (24 Hr.) (202) 267-2675 (Day Phone) |
| REPORTING REQUIREMENTS | |
| TYPE: Any discharge or sighting of oil on navigable waters. | |
| VERBAL: Immediate notification required (within 2 hours). | |
| WRITTEN: Not required. | |
| NOTE: A call to the NRC must also be made for spills or releases of hazardous substances that meet or exceed their RQ. | |
| Cook County Emergency Management Agency | |
| 69 W. Washington, Suite 2630 Chicago, Illinois 60602-1369 | (708) 865-4766 (24 Hr.) (312) 603-8180 (Day Phone) |
| REPORTING REQUIREMENTS | |
| TYPE: Any discharge that leaves Facility property in Cook County, IL. | |
| VERBAL: Immediately | |
| WRITTEN: As the agency may request, depending on circumstances. | |
| NOTE: | |
| Indiana Department of Environmental Management | |
| Indianapolis, Indiana | (888) 233-7745 (24 Hr.) (317) 233-7745 (Day Phone) |
| REPORTING REQUIREMENTS | |
| TYPE: Any discharge that may threaten waters of the state or any petroleum spill to land > 55 gallons released offsite or > 1,000 gallons. | |
| VERBAL: Immediately | |
| WRITTEN: As requested by agency. | |
| NOTE: | |

REQUIRED NOTIFICATIONS (Cont'd)**Indiana Lake County Sheriff Department (LEPC)**

| | |
|---|---|
| 2293 N. Main Street Crown Point, Indiana 46307 | (219) 755-3400 (24 Hr.) (219) 755-3000 (Day Phone) |
|---|---|

REPORTING REQUIREMENTS

TYPE: Any discharge that threatens state waters or any petroleum spill to land > 55 gallons released offsite or > 1,000 gallons and contained onsite in Lake County, IN.

VERBAL: Immediately (within 2 hours).

WRITTEN: As the agency may request, depending on circumstances.

NOTE:

Lake County LEPC

| | |
|---|---|
| 2900 W. 93rd Avenue Crown Point, Indiana 46307 | (219) 923-9876 (24 Hr.) (219) 755-3512 (Day Phone) |
|---|---|

REPORTING REQUIREMENTS

TYPE: Any discharge that may threaten waters of the state.

VERBAL: Immediately.

WRITTEN: As requested by agency.

NOTE:

Occupational Safety & Health Administration (OSHA)

| | |
|---|-------------------------|
| 200 Constitution Avenue Washington, District Of Columbia 20210 | (800) 321-6742 (24 Hr.) |
|---|-------------------------|

REPORTING REQUIREMENTS

TYPE: Fatality from a work related incident or the inpatient hospitalization of three (3) or more employees as a result of a work related incident.

VERBAL: Immediately.

WRITTEN: As requested by the Agency.

NOTE:

REQUIRED NOTIFICATIONS (Cont'd)**U.S. Department of Transportation (DOT)**

| | |
|--|---|
| Pipeline and Hazardous Materials Safety Administration East Building, 2nd Floor, 1200 New Jersey Ave Washington, District Of Columbia 20590 | (800) 424-8802 (24 Hr.) (202) 366-4433 (Day Phone) |
|--|---|

REPORTING REQUIREMENTS

TYPE: In addition to the reporting of accidents to the NRC, a written accident report may be required for incidents.

VERBAL: Call to the NRC meets the required verbal notification under DOT reporting requirement.

WRITTEN: As soon as practicable, an accident meeting any of the requisite criteria must be reported on PHMSA Form 7000-1.

NOTE:

U.S. Environmental Protection Agency Region V

| | |
|---|---|
| 77 W. Jackson Blvd., 5th Floor Chicago, Illinois 60604 | (312) 353-2318 (24 Hr.) (312) 353-2000 (Day Phone) |
|---|---|

REPORTING REQUIREMENTS

TYPE: Immediately for spills that impact or threaten navigable water or adjoining shoreline.

VERBAL: Notification to the EPA is typically accomplished by the call to the NRC.

WRITTEN: Per SPCC requirements, a written report must be submitted within 60 days for a spill in excess of 1,000 gals (approx 24 Bbls) in a single event or two spill events within a 12 month period.

NOTE:

OTHER POTENTIAL REQUIRED NOTIFICATIONS

Illinois Emergency Management Agency (SERC)

| | |
|--|---|
| 110 East Adams Springfield, Illinois 62701-1109 | (800) 782-7860 (24 Hr.) (217) 782-7860 (Day Phone) |
|--|---|

REPORTING REQUIREMENTS

TYPE: Any Discharge or sighting of oil, or hazardous substances exceeding a reportable quantity in Cook County, IL.

VERBAL: Immediately.

WRITTEN: As soon as practicable after the release.

NOTE:

Metropolitan Water Reclamation District (POTW)

| | |
|---|---|
| 100 East Erie Street Chicago, Illinois 60611 | (312) 787-3575 (24 Hr.) (312) 751-3044 (Day Phone) |
|---|---|

REPORTING REQUIREMENTS

TYPE: Within 2 hours for a spill to the ground (not on pavement) in Cook County, IL.

VERBAL: Within 2 hours.

WRITTEN: As the agency may request depending on circumstances.

NOTE:

U.S. Army Corps of Engineers-Emergency Management

| | |
|---|---|
| Chicago District, 111 N. Canal Street, Suite 600 Chicago, Illinois 60606 | (312) 353-6400 (24 Hr.) (312) 353-6310 (Day Phone) |
|---|---|

REPORTING REQUIREMENTS

TYPE: Permits for work in, over, or under navigable waters of the United States.

VERBAL:

WRITTEN:

NOTE: Regional Permit 13 (Cleanup of Toxic and Hazardous Material Projects).

| OTHER POTENTIAL REQUIRED NOTIFICATIONS (Cont'd) | |
|--|---|
| USCG - MSO Chicago | |
| 215 83rd Street, #D Burr Ridge, Illinois | (630) 986-2130 (24 Hr.) (630) 986-2155 (Day Phone) |
| REPORTING REQUIREMENTS | |
| TYPE: Immediately for spills that impact or threaten navigable water or adjoining shoreline. | |
| VERBAL: Notification to the EPA is typically accomplished by the call to the NRC. | |
| WRITTEN: Per SPCC requirements, a written report must be submitted within 60 days for a spill in excess of 1,000 gals (approx 24 Bbls) in a single event or two spill events within a 12 month period. | |
| NOTE: | |

| National Marine Fisheries Service - NE Region | |
|--|-------------------------|
| 55 Great Republic Drive Gloucester, Massachusetts 01930 | (978) 281-9332 (24 Hr.) |
| REPORTING REQUIREMENTS | |
| TYPE: Marine resources and habitat issues. | |
| VERBAL: As soon as practicable. | |
| WRITTEN: | |
| NOTE: | |

| Indiana Department of Natural Resources | |
|---|-------------------------|
| 402 West Washington Street Indianapolis, Indiana 46204 | (317) 232-4020 (24 Hr.) |
| REPORTING REQUIREMENTS | |
| TYPE: Fish and Wildlife Issues. | |
| VERBAL: | |
| WRITTEN: | |
| NOTE: | |

| OTHER POTENTIAL REQUIRED NOTIFICATIONS (Cont'd) | |
|--|-------------------------|
| Indiana Department of Transportation | |
| 7306 W. 15th Avenue Gary, Indiana 46406 | (219) 949-7865 (24 Hr.) |
| REPORTING REQUIREMENTS | |
| TYPE: Problem with Street or Highway. | |
| VERBAL: As soon as practicable. | |
| WRITTEN: | |
| NOTE: | |

| Hammond Sanitary District (Wastewater Treatment) | |
|--|-------------------------|
| 5143 Columbia Avenue Hammond, Indiana | (219) 853-6412 (24 Hr.) |
| REPORTING REQUIREMENTS | |
| TYPE: Any discharge that threatens state waters or any petroleum spill to land > 55 gallons released offsite or > 1,000 gallons and contained onsite in Lake County, IN. | |
| VERBAL: Immediately | |
| WRITTEN: As requested by agency. | |
| NOTE: | |

| Illinois EPA - Emergency Response (IEPA) | |
|--|-------------------------|
| 1021 N. Grand Ave. E Springfield, Illinois 62702 | (217) 782-3637 (24 Hr.) |
| REPORTING REQUIREMENTS | |
| TYPE: Any oil discharge that has impacted or threatens to impact navigable waters or release of hazardous substances in an amount equal to or greater than the reportable quality. | |
| VERBAL: Notification to the EPA is typically accomplished by the call to the NRC. | |
| WRITTEN: For oil discharge, within 60 days, in accordance with applicable SPCC RQ. | |
| NOTE: Per SPCC requirements, a written report must be submitted within 60 days for a spill in excess of 1,000 gals (approximately 24 Bbls) in a single event or two spill events within a twelve month period. | |

| OTHER POTENTIAL REQUIRED NOTIFICATIONS (Cont'd) | |
|--|---|
| City of Hammond (Water Intake) | |
| 6505 Columbia Ave. Hammond, Indiana | (219) 853-6439 (24 Hr.) |
| REPORTING REQUIREMENTS | |
| TYPE: Any discharge that threatens the water intake. | |
| VERBAL: Immediately. | |
| WRITTEN: As the agency may request depending on circumstances. | |
| NOTE: | |
| U.S. Fish & Wildlife Service - Region III | |
| Fort Snelling, Minnesota | (612) 713-5360 (24 Hr.) (800) 657-3775 (Day Phone) |
| REPORTING REQUIREMENTS | |
| TYPE: Wildlife protection/rehabilitation. | |
| VERBAL: Immediately, | |
| WRITTEN: As the agency may request depending on circumstances. | |
| NOTE: | |

| FIRE, POLICE, HOSPITALS, AIR MEDICAL SERVICE | | |
|---|------------------------|------------------|
| DIAL 911 for all Police, Fire, and Ambulance Emergencies | | |
| AGENCY | LOCATION | TELEPHONE |
| Calumet City Fire Department | Calumet City, Illinois | (708) 891-8145 |
| Thornton Fire Department | Thornton, Illinois | (708) 977-4459 |
| Dolton Fire Department | Dolton, Illinois | (708) 849-2145 |
| Burnham Fire Department | Burnham, Illinois | (708) 891-9865 |
| Alsip Fire Department | Alsip, Illinois | (708) 385-6902 |
| St. Francis Hospital | Blue Island, Illinois | (708) 597-2000 |
| Hammond Fire Department | Hammond, Indiana | (219) 853-6476 |
| Illinois State Police (HAZMAT Officer) | Des Plaines, Illinois | (312) 814-8367 |
| Indiana State Police | Lowell, Indiana | (800) 552-8917 |
| St. Margaret's Hospital | Hammond, Indiana | (219) 932-2000 |
| St. Catherine Hospital | East Chicago, Indiana | (219) 392-1700 |
| Hammond Police Department | Hammond, Indiana | (219) 853-6490 |
| Indiana Fire Marshall | Indianapolis, Indiana | (317) 232-2222 |
| Midlothian Fire Department | Midlothian, Illinois | (708) 385-5151 |
| Riverdale Fire Department | Riverdale, Illinois | (708) 849-2121 |

| MEDIA NOTIFICATIONS | | |
|---|-------------------|------------------|
| AGENCY | LOCATION | TELEPHONE |
| WGN Channel 9 Independent (Television) | Chicago, Illinois | (312) 883-3430 |
| National Weather Service (Recorded Forecasts) | Chicago, Illinois | (815) 963-8518 |
| WBBM AM 780 | Chicago, Illinois | (312) 297-7800 |
| WBEZ FM 91.5 | Chicago, Illinois | (312) 832-9150 |
| WFMT FM 98.7 | Chicago, Illinois | (773) 279-2000 |
| WJMK FM 104.3 | Chicago, Illinois | (312) 591-9565 |
| WFLD TV 32 (FOX) | Chicago, Illinois | (312) 565-5533 |
| WLS TV 7 (ABC) | Chicago, Illinois | (312) 750-7777 |
| WMAQ TV 5 (NBC) | Chicago, Illinois | (312) 836-5555 |
| WTTW TV 11 (PBS) | Chicago, Illinois | (773) 509-1111 |
| WBBM TV 2 (CBS) | Chicago, Illinois | (312) 899-2222 |

| OTHER PUBLIC/INDUSTRY CONTACTS | | |
|---------------------------------------|-----------------|------------------|
| COMPANY | LOCATION | TELEPHONE |
| Poison Control Center | Illinois | (800) 942-5969 |

Fire / Explosion Incidents

Pipeline Right of Way

- In the event of fire in the absence of a supervisor or the Senior Pipeline Technician, any Company employee on duty may be designated as the individual in charge.
- The individual discovering the fire will adhere to the instructions above:
 - Ensure that the fire department has been notified.
 - Alert all Facility areas of the exact location and extent of the fire.
 - Ensure supervisor is notified by telephone (refer to Figures 2.1 and 2.2).
- Prior to the arrival of a member of a supervisor, the individual will remain in charge and will direct the fire department to the scene of the fire.
- Handle the calls.
- Call the Fire and Police Departments (911).
- Notify the Operations Control and Senior Pipeline Technician.
- Go to the scene of the incident to evaluate the situation.
- Update Operations Control and Senior Pipeline Technician.

Hazardous Material or Oil Spill/Release Incidents

Line Break or Leak

- Notify Operations Control and Senior Pipeline Technician.
- Operations Control will perform shut down procedures outlined in Procedural Manual.
- Obtain all the necessary information to complete the leak report.
- Qualified personnel should use Combustible Gas Indicator, O2 meter, proper colorimetric indicator and/or other air sampling measurements to ensure that areas are safe to enter for continued response operations. Refer to Safety Volume for further guidance.
 - Mitigate spreading of the product, as the situation demands. Potential containment strategies include:
 - Earthen dike/berm
 - Ditching
 - Spreading sorbent material over the spill
 - Prevent the spill from entering the waterways, sewer, etc. to the greatest extent possible.
- Inform local operators such as utilities, telephone company, railway.
- Review the location of socio-economic and environmentally sensitive areas identified in Section 6.0. Determine which of these may be threatened by the spill and direct the response operation to these locations. Initiate protection and recovery actions.
- Determine the direction and expected duration of spill movement.
- Make all necessary repairs.
- Clean up spilled product to eliminate any possible environmental problems. Be alert for underground cables.
- Return the line to service when repairs are complete.
- Complete follow-up and written reporting, as the situation demands.

Abnormal Pipeline Operations

Person Who Discovers the Pipeline Incident

- If operating design limits have been exceeded (increase or decrease pressure or flow) and no emergency condition exists, stop operations and immediately investigate the pipeline.
- Verify whether a true safety problem, equipment malfunction, or operator error is present.
- If the situation is due to malfunctioning equipment, can transfer operations can continue safely? If yes, then bypass the faulty equipment until the completion of the transfer and make appropriate repairs. **Note: In all cases, safety to operations, the general public, and property will govern actions taken.**
- If the transfer can not continue safely, make appropriate repairs before continuing operations. **Note: Corrective action will only be done by qualified personnel to perform the type of work involved.**
- Monitor affected systems until normal operations are resumed.
- Inform local operators such as utilities, telephone, and/or railway.
- Complete follow-up and written reporting, as the situation demands.

Note: Abnormal operations are further detailed in the Company's O&M Manual.

Security Incidents

(b) (3), (b) (7)(F)

Medical Emergency/Rescue Incidents

Person Who Discovers the Medical Emergency

- Apply appropriate first aid for both injury and shock, exercising care not to cause further injury.
- If victim is unconscious and not breathing, immediately apply artificial respiration (if trained in CPR) and continue without interruption until natural breathing is restored or until relieved by another CPR-trained individual or other qualified medical personnel.
- Call for ambulance or other medical evacuation resources, if appropriate.
- Notify hospital of patient arrival and extent of injury.
- Notify victim's immediate family.
- Complete follow-up and written reporting, as the situation demands.

FIGURE 4.5
INCIDENT MANAGEMENT TEAM - COMMAND STRUCTURE

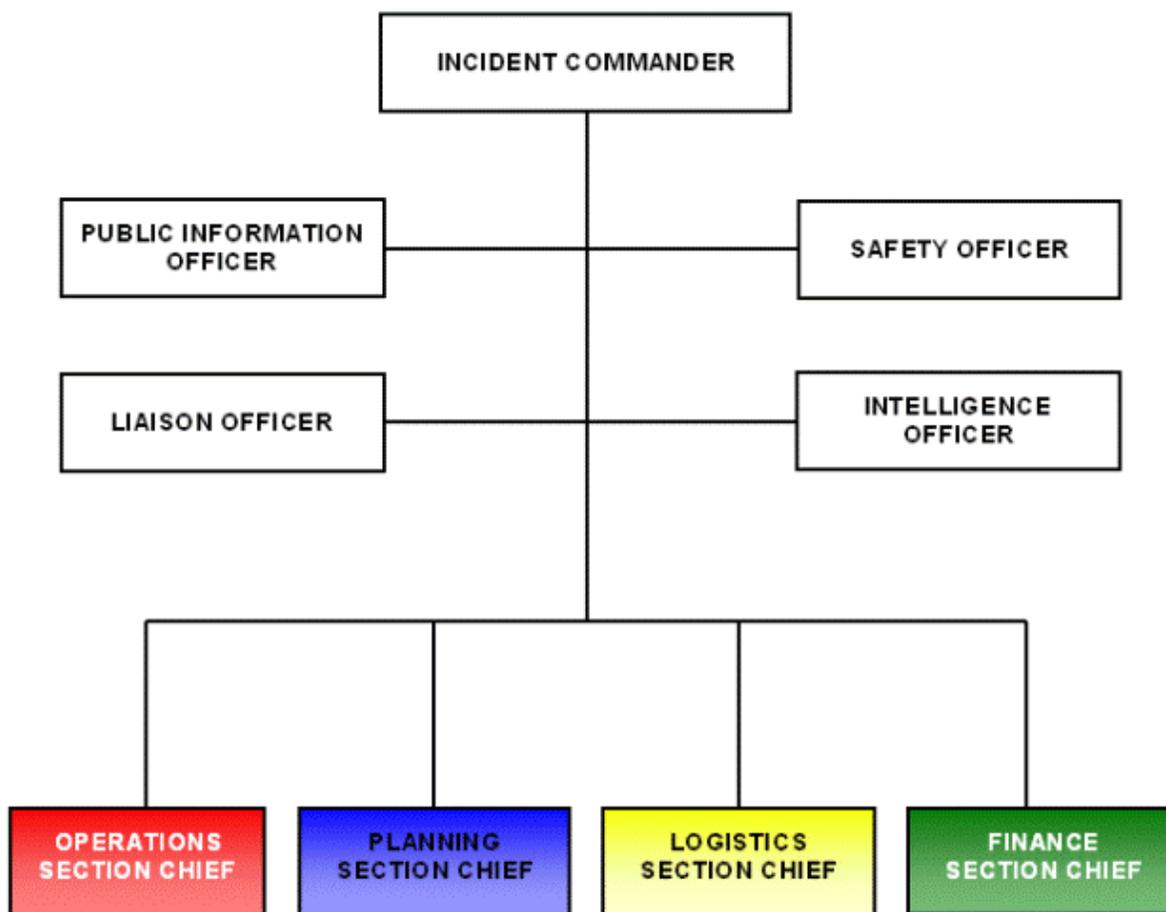


FIGURE A.1

| EMERGENCY RESPONSE EQUIPMENT | | | |
|---|---------------------------|---|-----------------|
| Date of Last Update: | | Last Inspection or Response Equipment Test Date: | |
| Inspected By: | | Last Deployment Drill Date: | |
| Inspection Frequency: | | Deployment Frequency: | |
| Fire/Rescue Equipment: | | | |
| Fire Fighting and Rescue Equipment | | | |
| Type/Year | Operational Status | Quantity | Location |
| | | | |
| | | None | |
| | | | |

FIGURE A.2

| FACILITY RESPONSE EQUIPMENT | | | | | | |
|---|--------------------|----------|--|-------------------------------|---------------------|------------------------|
| Date of Last Update: | | | Last Inspection or Response Equipment Test Date: | | | |
| Inspected By: | | | Last Deployment Drill Date: | | | |
| Inspection Frequency: | | | Deployment Frequency: | | | |
| Hazardous Material/Oil Spill Equipment: | | | | | | |
| SKIMMERS/PUMPS | | | | | | |
| Type/Model/Year | Operational Status | Quantity | Capacity bbl/day | Daily Effective Recovery Rate | Storage Location(s) | Date Fuel Last Changed |
| | | | | | | |
| | | None | | | | |
| | | | | | | |

| FACILITY RESPONSE EQUIPMENT (Cont'd) | | | |
|--|---------------------------|---|---|
| Date of Last Update: | | Last Inspection or Response Equipment Test Date: | |
| Inspected By: | | Last Deployment Drill Date: | |
| Inspection Frequency: | | Deployment Frequency: | |
| Hazardous Material/Oil Spill Equipment: | | | |
| BOOM | | | |
| Type/Model/ Year | Operational Status | Size (Length) | Containment Area Storage Location(s) |
| | | | |
| | | None | |
| | | | |

| FACILITY RESPONSE EQUIPMENT (Cont'd) | | | | | | |
|---|--------------------|------------------|--|--------------------|---------------------|--------------|
| Date of Last Update: | | | Last Inspection or Response Equipment Test Date: | | | |
| Inspected By: | | | Last Deployment Drill Date: | | | |
| Inspection Frequency: | | | Deployment Frequency: | | | |
| Hazardous Material/Oil Spill Equipment: | | | | | | |
| CHEMICAL DISPERSANTS | | | | | | |
| Type | Operational Status | Quantity/ Amount | Date Purchased | Treatment Capacity | Storage Location(s) | Date Changed |
| | | | | | | |
| | | None | | | | |
| | | | | | | |

| FACILITY RESPONSE EQUIPMENT (Cont'd) | | | | |
|---|--------------------|----------|--|---------------|
| Date of Last Update: | | | Last Inspection or Response Equipment Test Date: | |
| Inspected By: | | | Last Deployment Drill Date: | |
| Inspection Frequency: | | | Deployment Frequency: | |
| Hazardous Material/Oil Spill Equipment: | | | | |
| DISPERSANT DISPENSING EQUIPMENT | | | | |
| Type/Year | Operational Status | Capacity | Storage Location(s) | Response Time |
| | | | | |
| | None | | | |
| | | | | |

| FACILITY RESPONSE EQUIPMENT (Cont'd) | | | | |
|---|--------------------|------|--|------------------|
| Date of Last Update: | | | Last Inspection or Response Equipment Test Date: | |
| Inspected By: | | | Last Deployment Drill Date: | |
| Inspection Frequency: | | | Deployment Frequency: | |
| Hazardous Material/Oil Spill Equipment: | | | | |
| SORBENTS | | | | |
| Brand Name/Type | Operational Status | Size | Treatment Capacity | Storage Location |
| | | | | |
| | None | | | |
| | | | | |

| FACILITY RESPONSE EQUIPMENT (Cont'd) | | | |
|--|---------------------------|---|-------------------------|
| Date of Last Update: | | Last Inspection or Response Equipment Test Date: | |
| Inspected By: | | Last Deployment Drill Date: | |
| Inspection Frequency: | | Deployment Frequency: | |
| Hazardous Material/Oil Spill Equipment: | | | |
| HAND TOOLS | | | |
| Type/Year | Operational Status | Quantity | Storage Location |
| | | | |
| | None | | |
| | | | |

| FACILITY RESPONSE EQUIPMENT (Cont'd) | | | |
|--|---------------------------|---|-----------------------------------|
| Date of Last Update: | | Last Inspection or Response Equipment Test Date: | |
| Inspected By: | | Last Deployment Drill Date: | |
| Inspection Frequency: | | Deployment Frequency: | |
| Hazardous Material/Oil Spill Equipment: | | | |
| COMMUNICATION EQUIPMENT | | | |
| Type/Year | Operational Status | Quantity | Storage Location(s)/Number |
| | | | |
| | None | | |
| | | | |

| FACILITY RESPONSE EQUIPMENT (Cont'd) | | | |
|---|--------------------|--|------------------|
| Date of Last Update: | | Last Inspection or Response Equipment Test Date: | |
| Inspected By: | | Last Deployment Drill Date: | |
| Inspection Frequency: | | Deployment Frequency: | |
| Hazardous Material/Oil Spill Equipment: | | | |
| PERSONAL PROTECTIVE EQUIPMENT | | | |
| Type/Year | Operational Status | Quantity | Storage Location |
| | None | | |
| | | | |

Set the counter

| FACILITY RESPONSE EQUIPMENT (Cont'd) | | | |
|---|--------------------|--|------------------|
| Date of Last Update: | | Last Inspection or Response Equipment Test Date: | |
| Inspected By: | | Last Deployment Drill Date: | |
| Inspection Frequency: | | Deployment Frequency: | |
| Hazardous Material/Oil Spill Equipment: | | | |
| OTHER EQUIPMENT | | | |
| Type/Year | Operational Status | Quantity | Storage Location |
| | | | |
| | None | | |
| | | | |

**FIGURE A.3
CONTRACTED RESPONSE RESOURCES**

| USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATION (OSRO) | | | | | | | |
|---|---------------|------------------|-------------------------------|----|----|----|-------------|
| OSRO Name | Response Time | Environment Type | Facility Classification Level | | | | High Volume |
| | | | MM | W1 | W2 | W3 | |
| National Response Corporation (NRC) | 1 Hour | River/Canal | Y | Y | Y | Y | No |
| | | Inland | Y | Y | Y | Y | |

Note: Classification ratings taken from the USCG's internet site

www.uscg.mil/hq/nsfweb/nsfcc/ops/ResponseSupport/RRAB/osroclassifiedguidelines.asp

3.7 EVACUATION

This evacuation plan shall be implemented in the event of an incident which requires the evacuation of one or more areas of the Facility.

The primary responsibility of the Incident Commander is to account for all employees and visitors in the emergency area.

Evacuation Planning

The primary evacuation routes were developed with the following factors taken into consideration:

- ✓ location of stored materials;
- ✓ hazard imposed by spilled material;
- ✓ spill flow direction;
- ✓ prevailing wind direction and speed;
- ✓ water currents, tides, or wave conditions (if applicable);
- ✓ arrival route of emergency response personnel and response equipment;
- ✓ evacuation routes;
- ✓ alternative routes of evacuation;
- ✓ transportation of injured personnel to nearest emergency medical facility;
- ✓ location of alarm/notification systems;
- ✓ the need for a centralized check-in area for evacuation validation (roll call);
- ✓ selection of a mitigation command center; and
- ✓ location of shelter at the facility as an alternative to evacuation.

All employees and contractors have been trained to evaluate the safety of the primary route prior to using it for evacuation.

The Evacuation Diagram in Appendix G shows the primary evacuation routes throughout the Facility.

Evacuation Response

Isolation of Potential Emergency Site

For all potential emergency situations, isolation of the area affected by employees and the general public will always be an immediate priority. Since each emergency is different, the size of the area to be isolated and the method of isolation will vary on a case by case basis.

In general, fenced pipeline installations such as tank farms, delivery terminals and pump stations can be isolated by controlling traffic at the installation's main gate. For situations on the pipeline right-of-way, the response team must quickly determine the size of the area potentially affected and work closely with local responders to make every effort to control all access to the area by road, rail or footpath.

In general, a potential emergency situation will be most easily isolated through the prompt enlistment of help from local responders (police, fire, etc.) to help control an area other than a fenced Facility. Section 2.0 contains listings of how to contact these personnel.

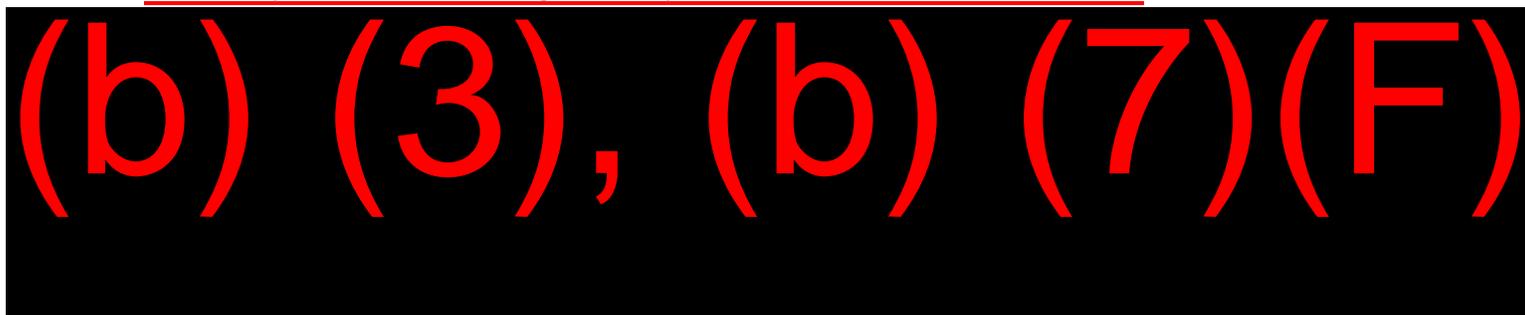
Facility Evacuations

It is often difficult to determine when the quantity of vapors present constitute a hazard severe enough to warrant shutdown of operations and maintenance and the evacuation of the work site or pipeline, even when hazardous atmosphere detectors are in use.

Employees must ultimately use their own judgment based on the available information, in addition to previous experience and training, in making this decision. In all cases these judgments should be conservative, i.e., they should err on the side of safety and caution.

The protection of human life must always take precedence over the protection of physical property or equipment.

Remote System Locations; Right-of-Way Locations



Personnel responding to the affected location should always make an initial assessment of the site at a safe distance from the likely source point of the release. If the source point cannot be isolated without entering a vapor cloud or other hazardous situation, the investigating personnel should stay out of the hazardous area. A call for immediate assistance should be made to the Controller and to the QI to begin notification of the appropriate members of the SMT, who are properly equipped to approach and isolate a release of this nature.

The QI has responsibility for contacting the appropriate local officials for assistance in evacuating and isolating all persons from the affected area and controlling traffic and spectators if needed.

Evacuations Involving the General Public

Specific Procedure

- The Company's acting On-Scene Commander first assesses the incident and determines it is necessary to evacuate the public from the immediate affected area (local officials should be included in this decision making if time permits).
- Coordination of evacuation efforts is the responsibility of the On-Scene Commander, or the person assigned as the SMT's Liaison Officer.
- If the incident involves injured persons, refer to "Medical Emergencies" of Section 3.0.
- Local authorities such as the police, highway patrol and fire departments should be pressed into service assisting an evacuation, with the Company's On-Scene Commander or Liaison Officer acting as direct liaison to these officials.
- All nearby occupied dwellings should then be visited and the inhabitants informed of the dangers as soon as possible. Evacuation instructions to residents must insist that all open flames including pilot lights and gas burners be extinguished if possible.
- Conduct evacuation on foot if necessary.

- Warn all evacuees against activities such as smoking, operating motor vehicles, using spark-producing appliances, etc. The Company should attempt to render whatever assistance is necessary to the evacuees.
- Keep the QI and/or Safety Officer informed of any evacuation efforts so they may pass along the latest information regarding such actions to other support personnel.
- In the interest of safety, the media and other members of the general public may need to be utilized to quickly inform people in the immediate area of an ongoing evacuation effort.
- Members of the press should be advised that electronic equipment such as camera lights and flashes can be potential sources of ignition when explosive vapors are present.

Traffic Control

- If an incident occurs near a road or railroad, local traffic may need to be halted or diverted from the immediate area. The assistance of local authorities should be solicited to enforce any necessary detours of local traffic until the hazardous situation can be stabilized. Railroads should be notified so they can halt rail traffic.

Notification of Public Officials

- The Company must be prepared to coordinate the Company's response to emergencies with public officials as appropriate. The QI or other appointee will interface with public officials on the appropriate seniority levels who are concerned about an emergency response in progress. The QI will meet directly with onsite incident commanders from other agencies in order to best coordinate response efforts. The Liaison Officer will act as Company liaison with various local emergency responders during the incident. The Environmental Situation Chief will act as liaison with federal and state-level environmental responders if necessary. The Safety Officer shall act as liaison with OSHA representatives if necessary.
- In case of an emergency within the Facility that would necessitate evacuation, some or all of the following steps are taken, depending on type of emergency and circumstances:
 - Sound an alarm or give verbal alarm.
 - Call 911.
 - Shut down loading and pipeline receiving operations.
 - Evacuate trucks from facility (provided that a safe operating environment exists).
 - Divert incoming trucks to a safe distance away.
 - Evacuate all personnel to staging area.
- An evacuation diagram is posted in the office and on the following page, showing evacuation routes from different areas of the Facility. However, evacuation routes can be decided upon during a spill if they take the following factors into consideration:
 - Location of Stored Materials - See Facility Diagram for location of storage tanks.
 - Hazard Imposed by the Spilled Material - Excessive exposure to vapors and liquid stages of any spilled product should be avoided.
 - Spill Flow Direction - A discharge originating from the Facility would flow to the north.
 - Prevailing Wind Direction - Prevailing winds in the Hammond area generally come from the southwest (210°) throughout the year with an average wind speed of 10 mph.
- The Terminal Emergency Siren alarm button is located outside the front office building on the southeast corner. A primary evacuation muster point is located outside the office on 141st Street. If appropriate, a roll call would be taken to account for all personnel. Should the need arise, shelter may be taken at the Facility office located on Facility property.

- During a spill, a mitigation command center will be established on or off site depending on conditions. This decision will be made during the initial stages of a spill. The office will more than likely be the onsite location for a command post. The location for an offsite command post will be decided upon based on availability.
- Response personnel and equipment will use emergency and normal exits at the Facility during an emergency at the Facility.

Directions to Hospital

- The nearest hospital is St. Margaret's Mercy Hospital at 5454 Hohman Avenue, Hammond, IN. To get to the hospital from the Facility, go west on 141st Street by turning left. Turn left onto US-41 (Calumet Avenue); turn right onto Fayette Street; turn left onto Sohl Avenue; turn right onto Douglas Street; then turn left onto Hohman Avenue.

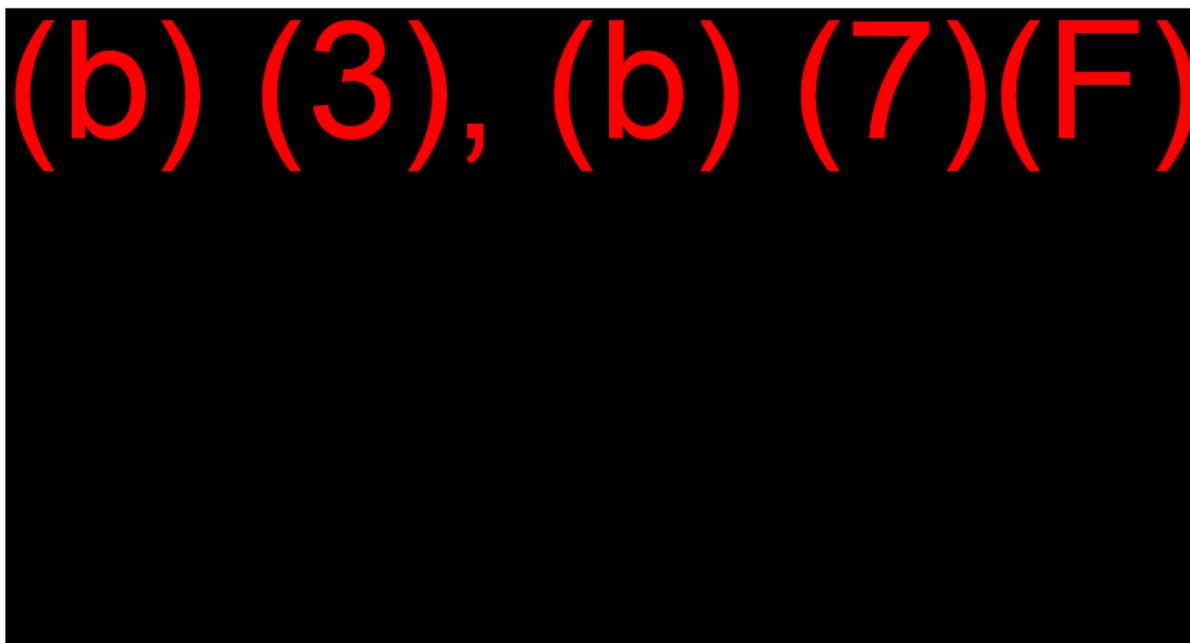
Community Evacuation

- Community evacuation would include any residential subdivisions and neighboring business. Community evacuation plans are in place and local agencies will initiate and coordinate these efforts.
- The Community Alert Network provides Lake County emergency notification. Calls start immediately at a rate of 3,000 to 5,000 an hour. It will provide instructions on what residents need to do. This includes "In-Place" Sheltering or evacuation as required.

Area Map

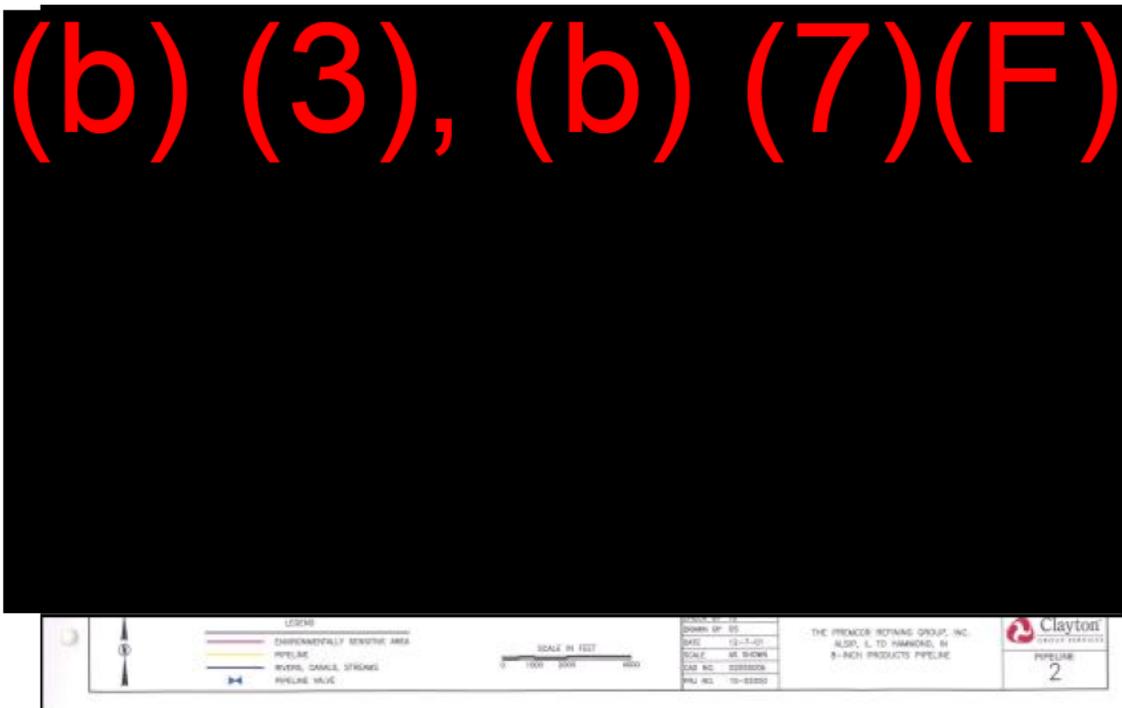


Facility Diagram

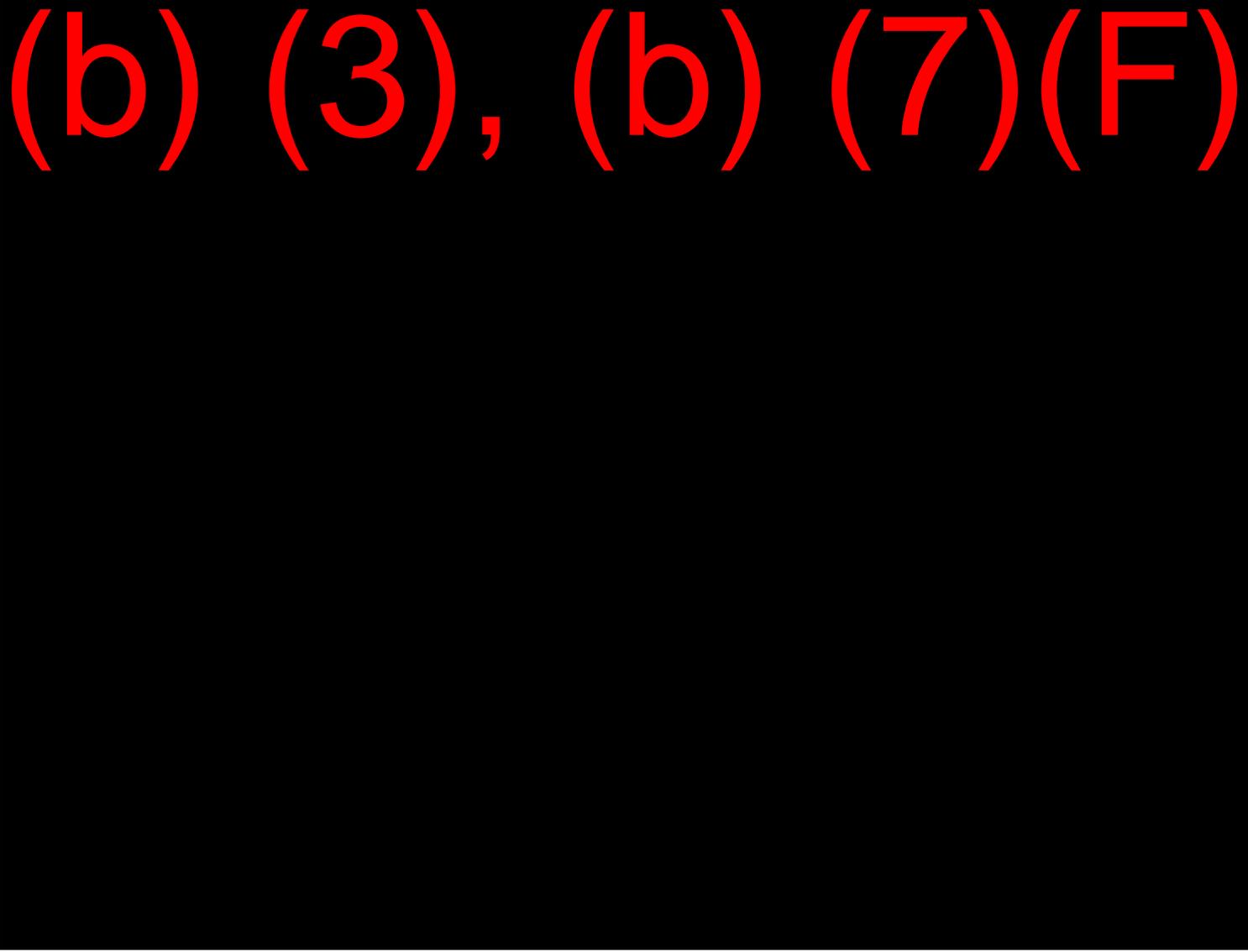


| | | | | | |
|------------------|---|------|----------|------------------|---|
| Hammond Terminal | PRENOR PIPELINE COMPANY HAMMOND TERMINAL HAMMOND, INDIANA | 7836 | 2-12-07 | FACILITY DIAGRAM |  Associated, Inc. 2001 Greenwood Lake Rd. Hammond, Indiana 46324 Phone: (219) 932-2500 |
| | | WJS | AS NOTED | | Integrated Contingency Plan February 2007 |

Figure 2 Alsip to Hammond Pipeline

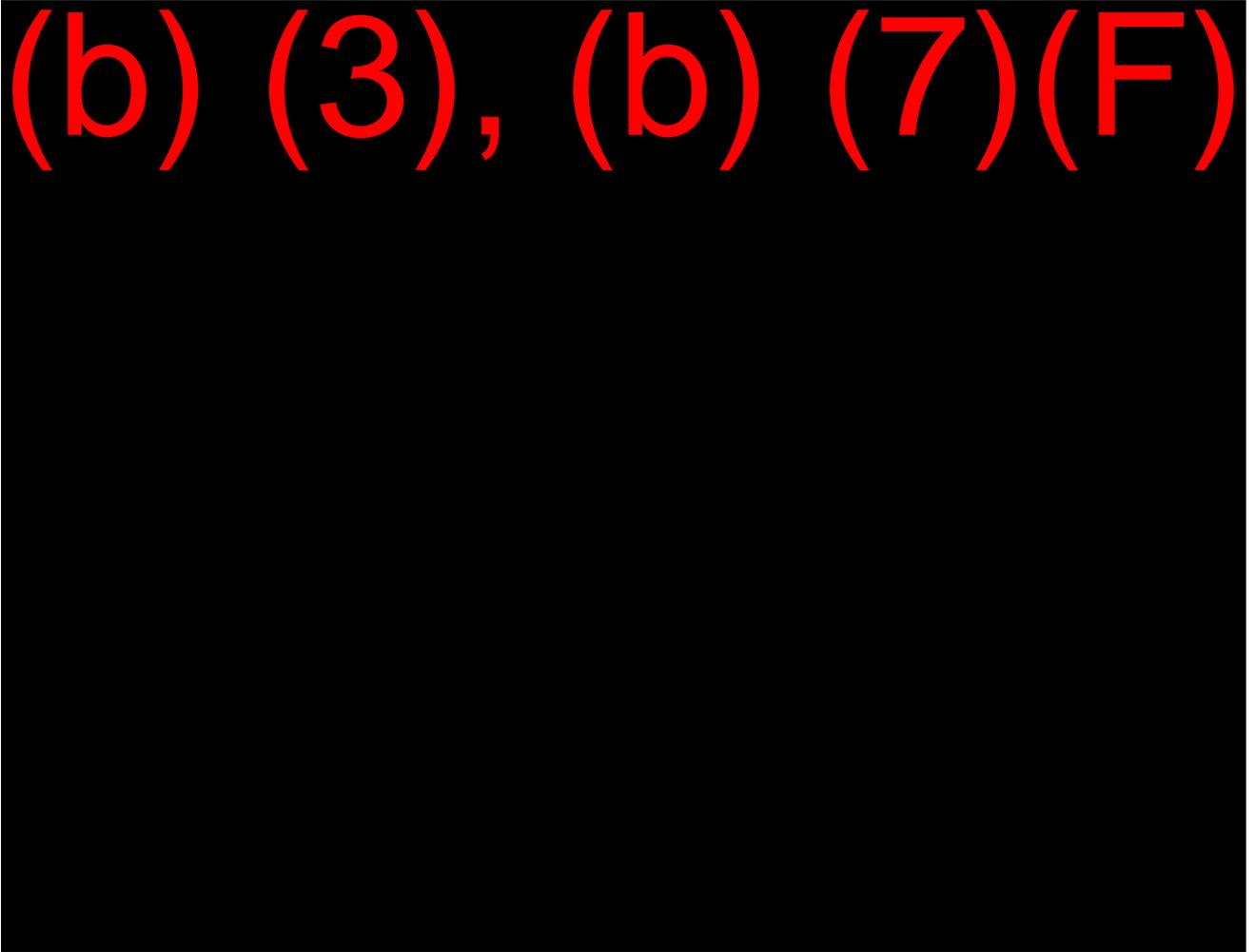


(b) (3), (b) (7)(F)

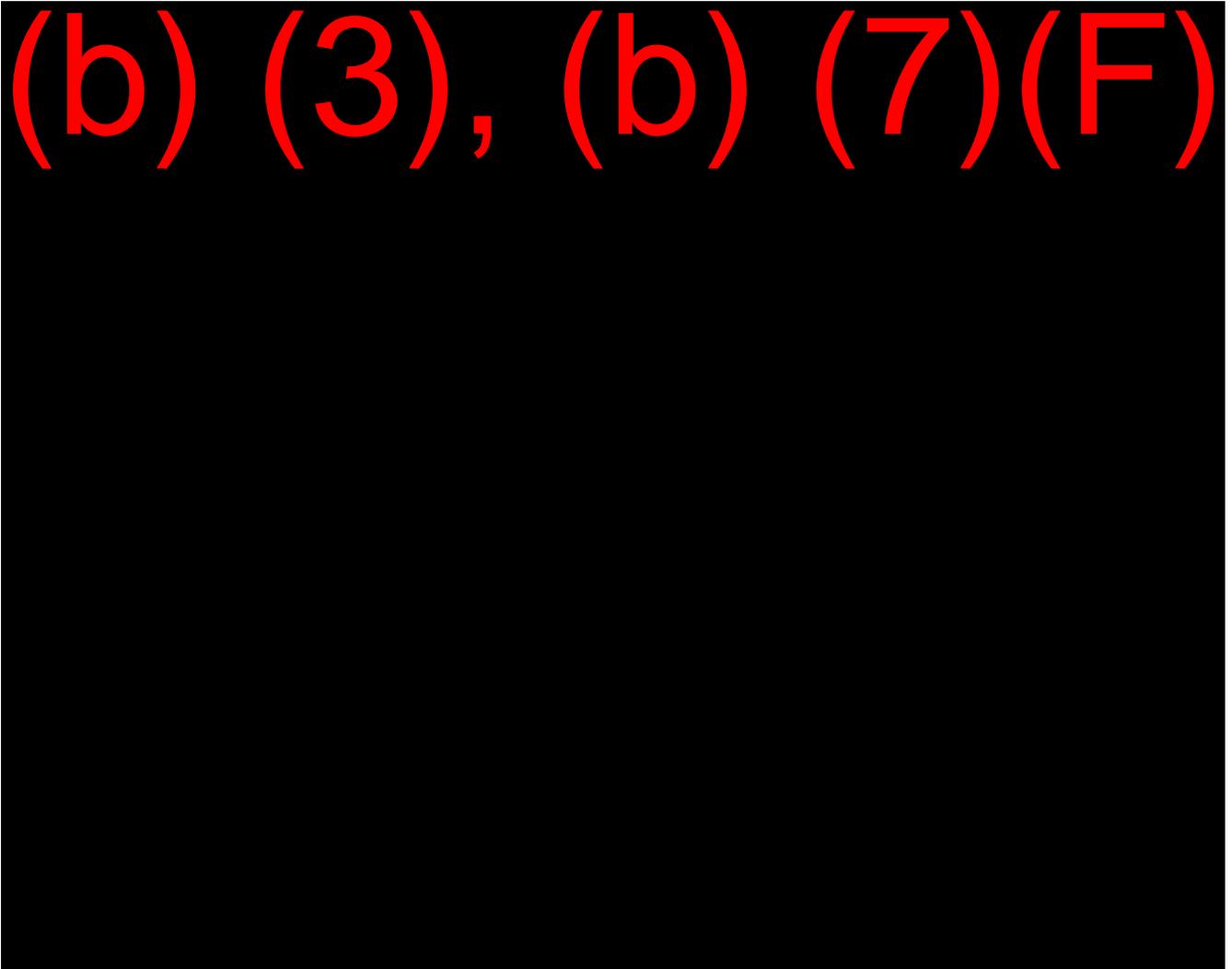


(b) (3), (b) (7)(F)

(b) (3), (b) (7)(F)

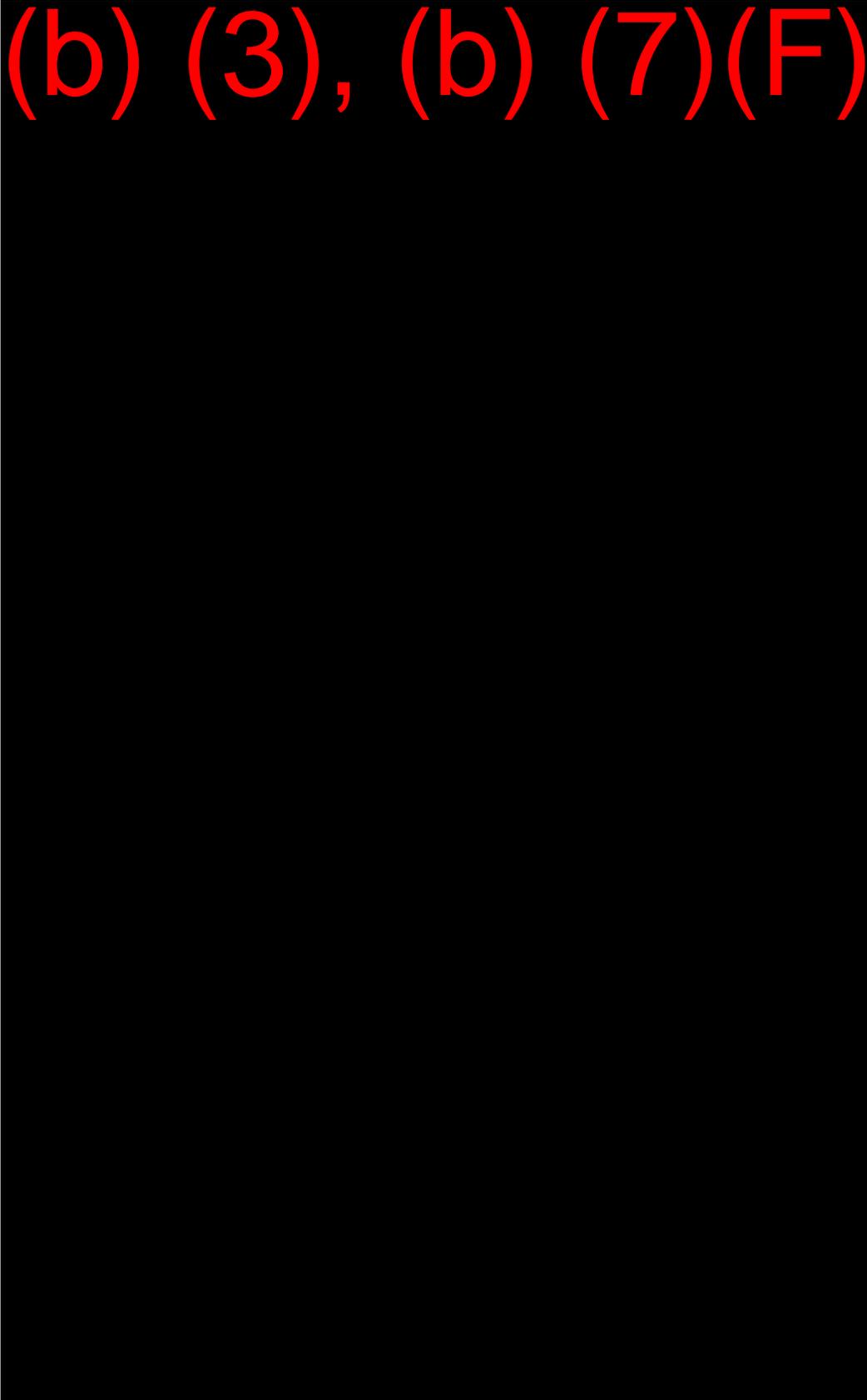


(b) (3), (b) (7)(F)

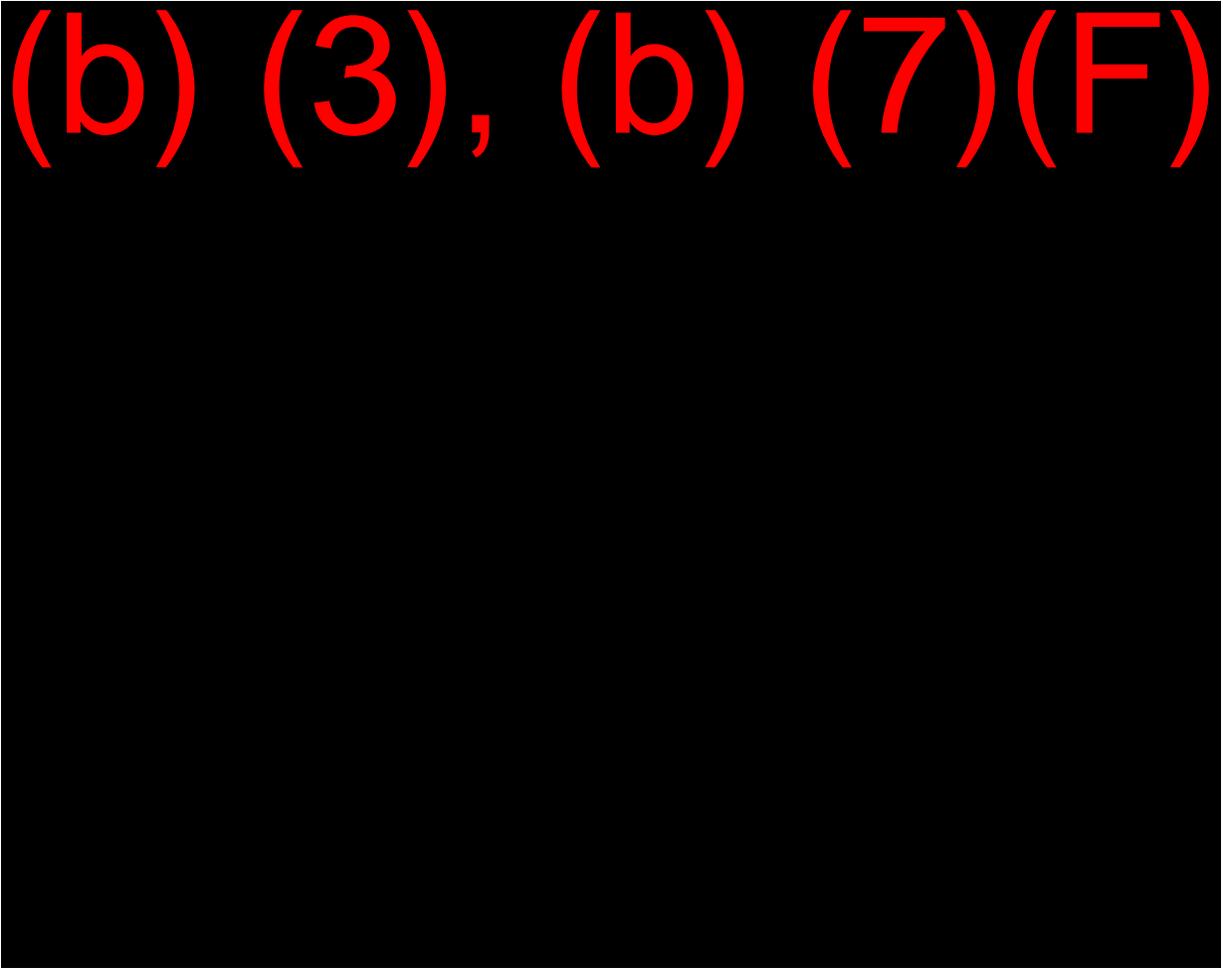


ENERGISTIX, INC - Alsip to Hammond Pipeline Map July 2004_Page_5

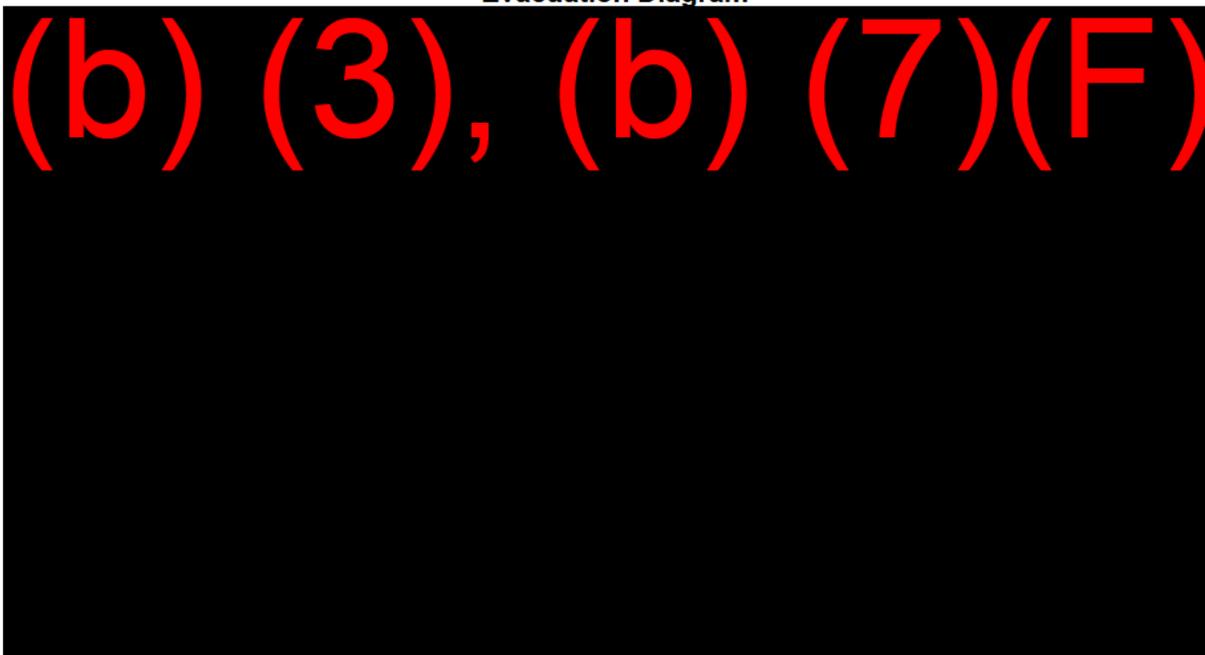
(b) (3), (b) (7)(F)



(b) (3), (b) (7)(F)

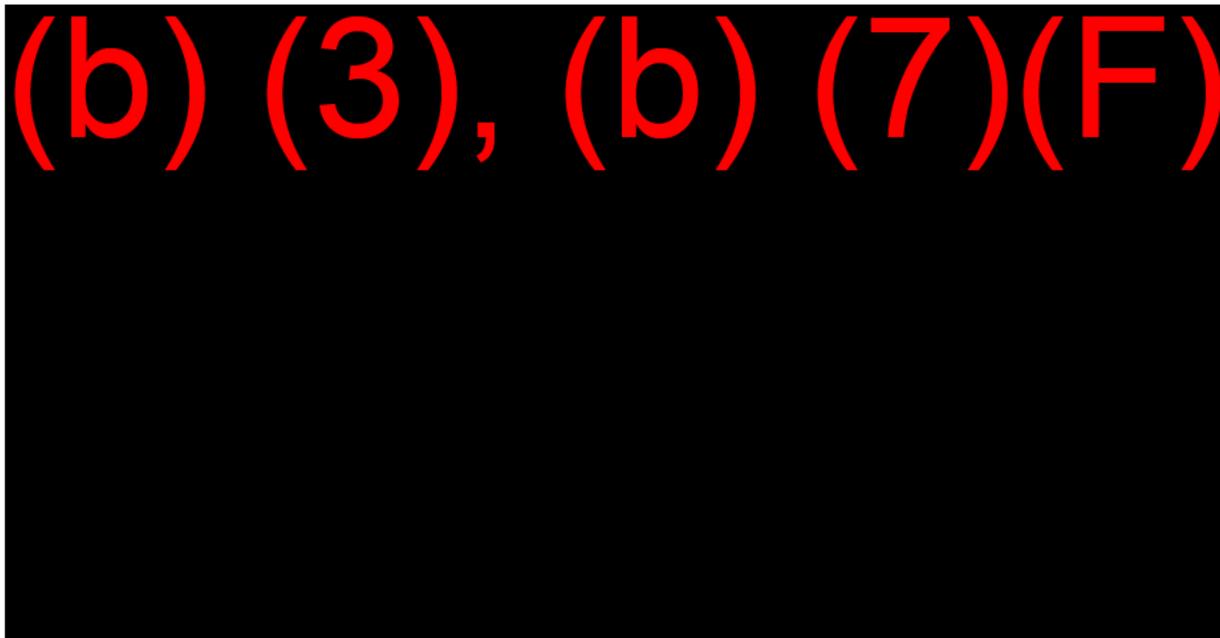


Evacuation Diagram



| | | | | | | |
|------------------|---|-----------------|----------------|----------------------|--------------------|---|
| Hammond Terminal | PREVOR PIPELINE COMPANY HAMMOND TERMINAL HAMMOND, INDIANA | JOB NO. 0946 | DATE M.C.S. | REV. NO. AS NOTED | EVACUATION DIAGRAM |  Response Management Aurora, Illinois, USA 1801 Eastwood, Suite 200 Spring, Illinois, USA 60146 Phone: (815) 208-9788 Integrated Contingency Plan July 2011 |
|------------------|---|-----------------|----------------|----------------------|--------------------|---|

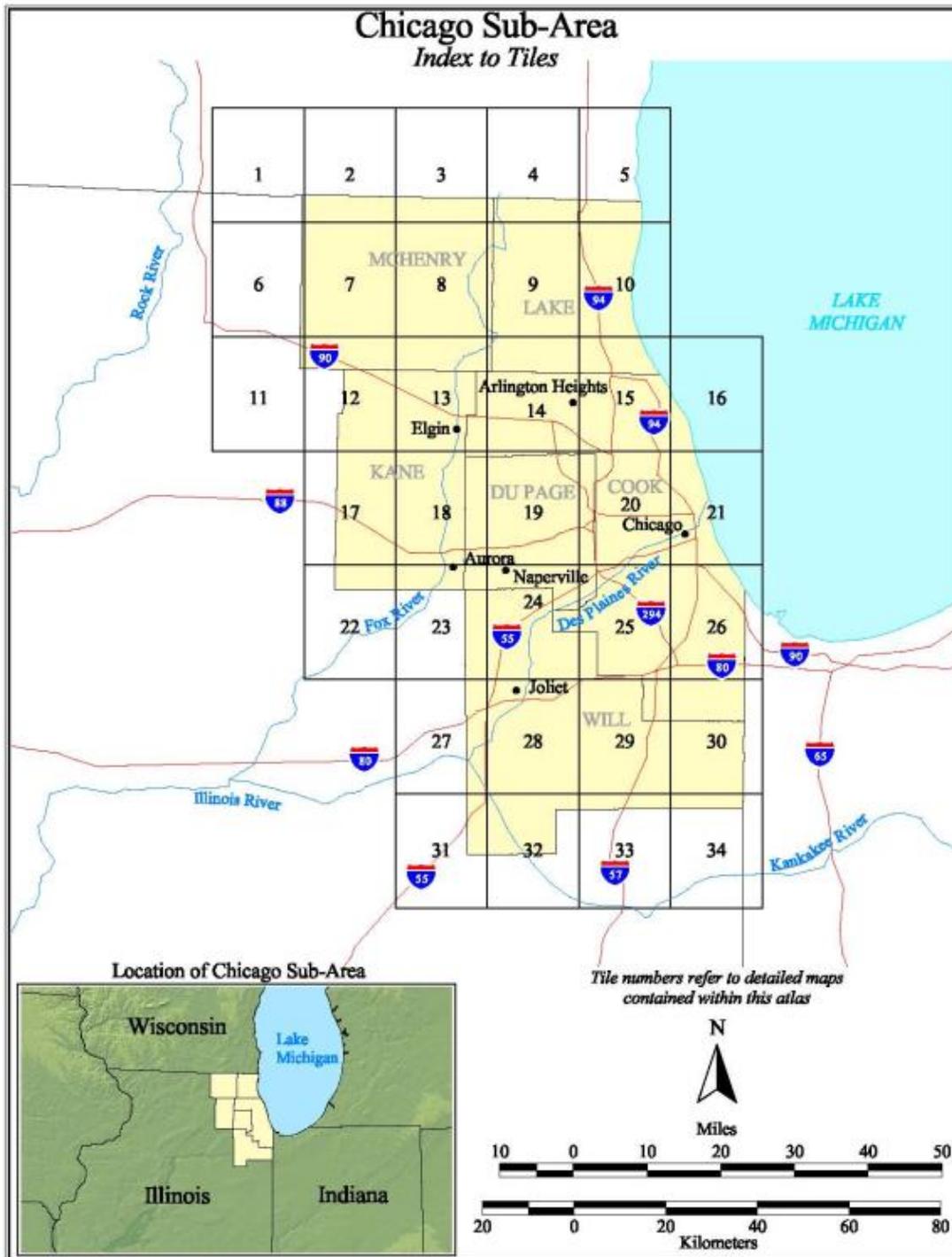
Drainage Diagram



| | | | | | |
|------------------|--------------------------------------|--------|----------|------------------|--|
| Hammond Terminal | HAMMOND TERMINAL HAMMOND, INDIANA | W.C.S. | AS NOTED | DRAINAGE DIAGRAM |  O'Brien's Response Management Inc. 10000 (Hammond) Loop 2500 Hammond, IN 47924 Phone: (219) 949-9494 |
|------------------|--------------------------------------|--------|----------|------------------|--|

Environmental Sensitivity Map

Alsip ESMs_Page_01



Alsip ESMs_Page_02

MAP LEGEND

SENSITIVE SPECIES

| | |
|---|--|
| <p>Aquatic/Riparian Zone</p> <ul style="list-style-type: none"> ○ Vascular Plants ○ Birds ○ Amphibians and Reptiles ○ Mammals ○ Invertebrates ○ Fish ○ Natural Communities | <p>Terrestrial Zone</p> <ul style="list-style-type: none"> ○ Vascular Plants ○ Birds ○ Amphibians and Reptiles ○ Mammals ○ Invertebrates ○ Natural Communities ○ Multiple Species Groupings |
|---|--|

Icons Indicating Threatened or Endangered Status

NATURAL RESOURCE AREAS

| | |
|---|---|
| <ul style="list-style-type: none"> Federal Managed Areas State Managed Areas Regional Managed Areas Private Managed Areas Other Environmentally Sensitive Aquatic Areas Other Environmentally Sensitive Terrestrial Areas | <ul style="list-style-type: none"> Federal Designated Areas State Designated Areas Regional Designated Areas Private Designated Areas |
|---|---|

Tribal Land

| | |
|--|--|
| <p>OTHER SENSITIVE RESOURCES</p> <ul style="list-style-type: none"> Marina Navigational Lock and Dam Water Intake (nonpotable) Water Intake (potable) | <p>SHORELINE SENSITIVITY</p> <ul style="list-style-type: none"> High Sensitivity Medium-High Sensitivity Low-Medium Sensitivity Low Sensitivity |
|--|--|

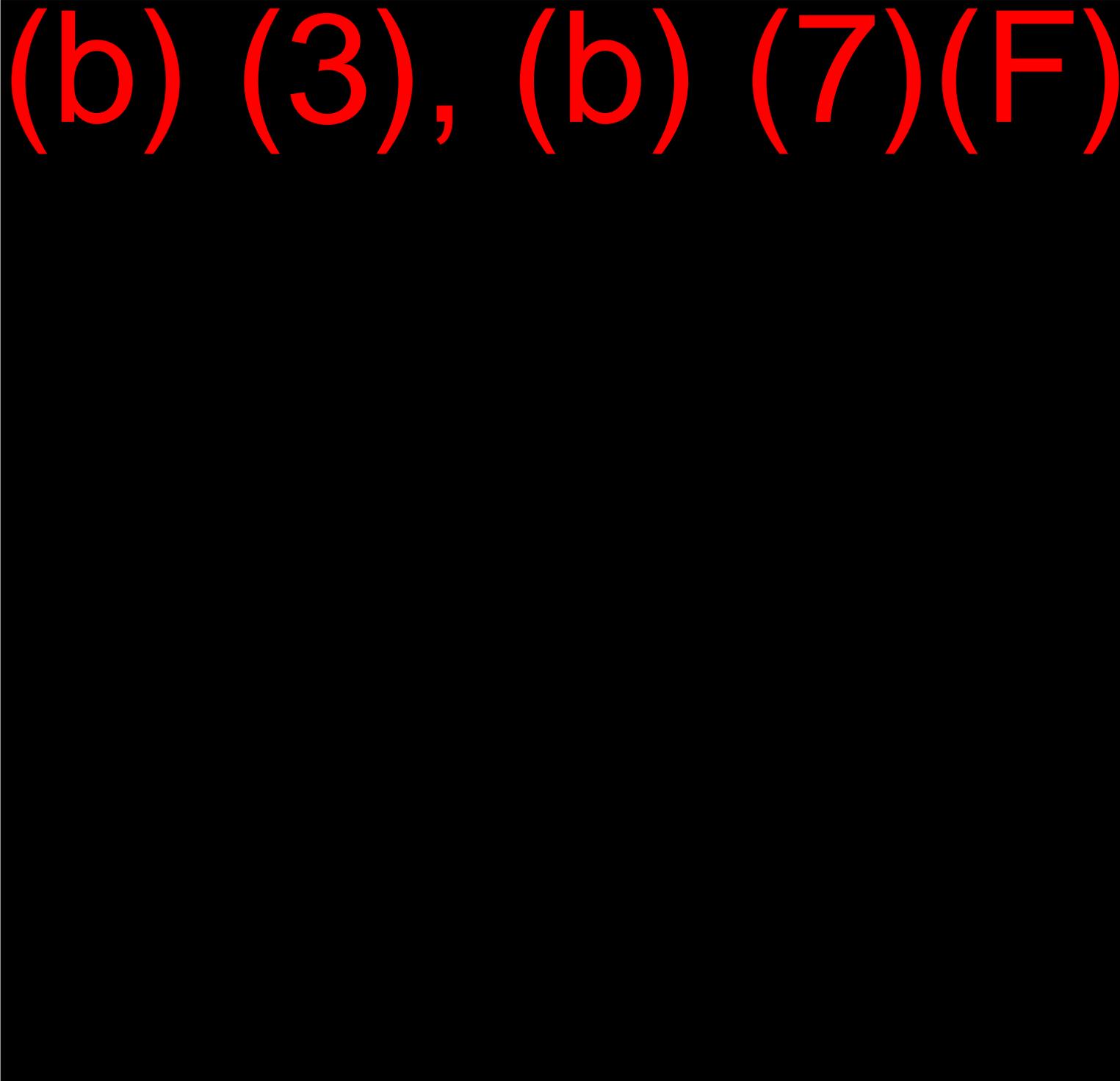
POTENTIAL SPILL SOURCES

- Fixed Oil Storage Facility
- Marine Transfer Facility and/or Facility with more than 1 million gallons
- Pipeline

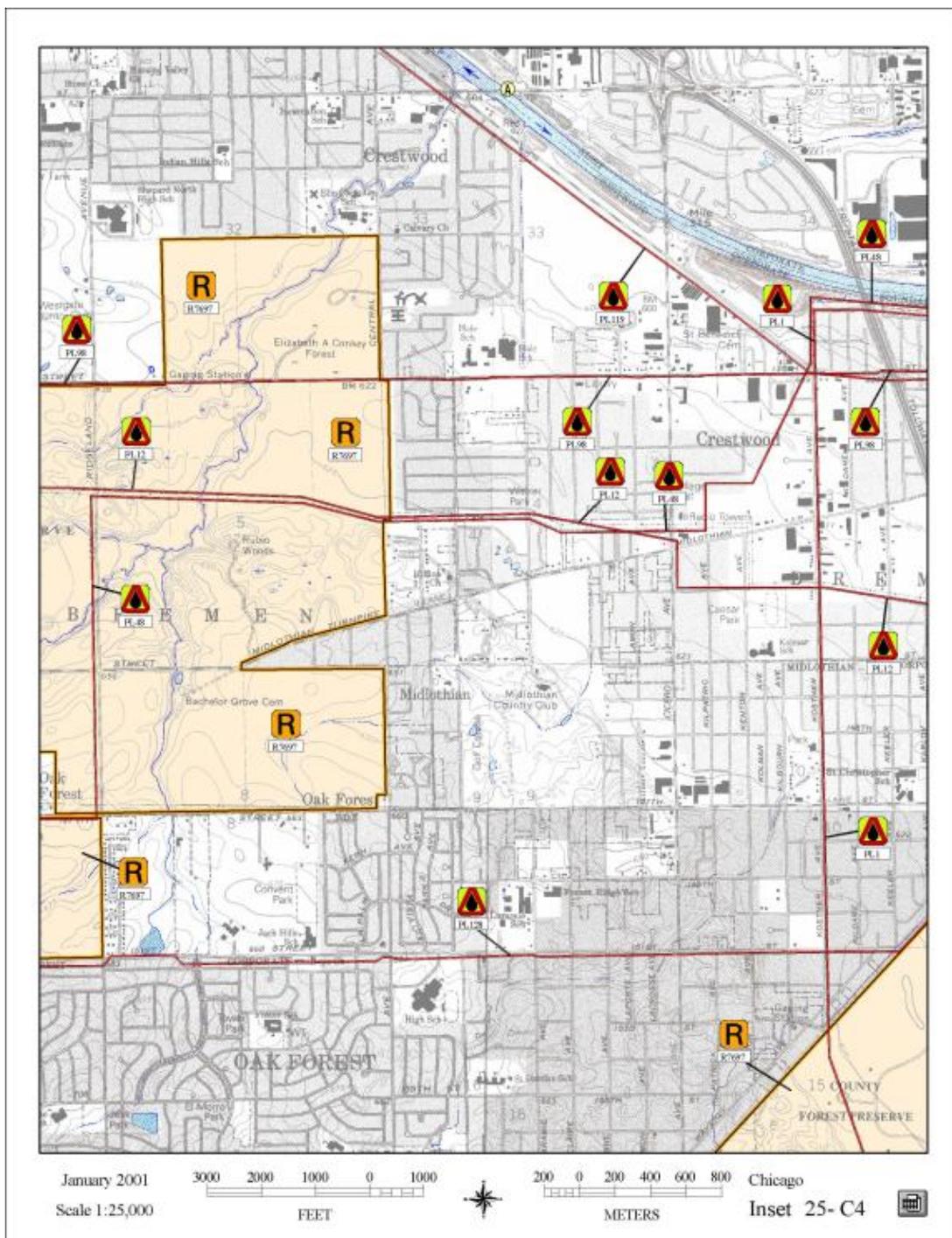
| | |
|---|--|
| <p>RESPONSE CONSIDERATIONS</p> <ul style="list-style-type: none"> Boat Access Non-navigational Dam | <p>BOUNDARY DESIGNATIONS</p> <ul style="list-style-type: none"> County Boundary EPA/Coast Guard Jurisdictional Boundary Pipeline Inset Boundary |
|---|--|

Alsip ESMs_Page_03

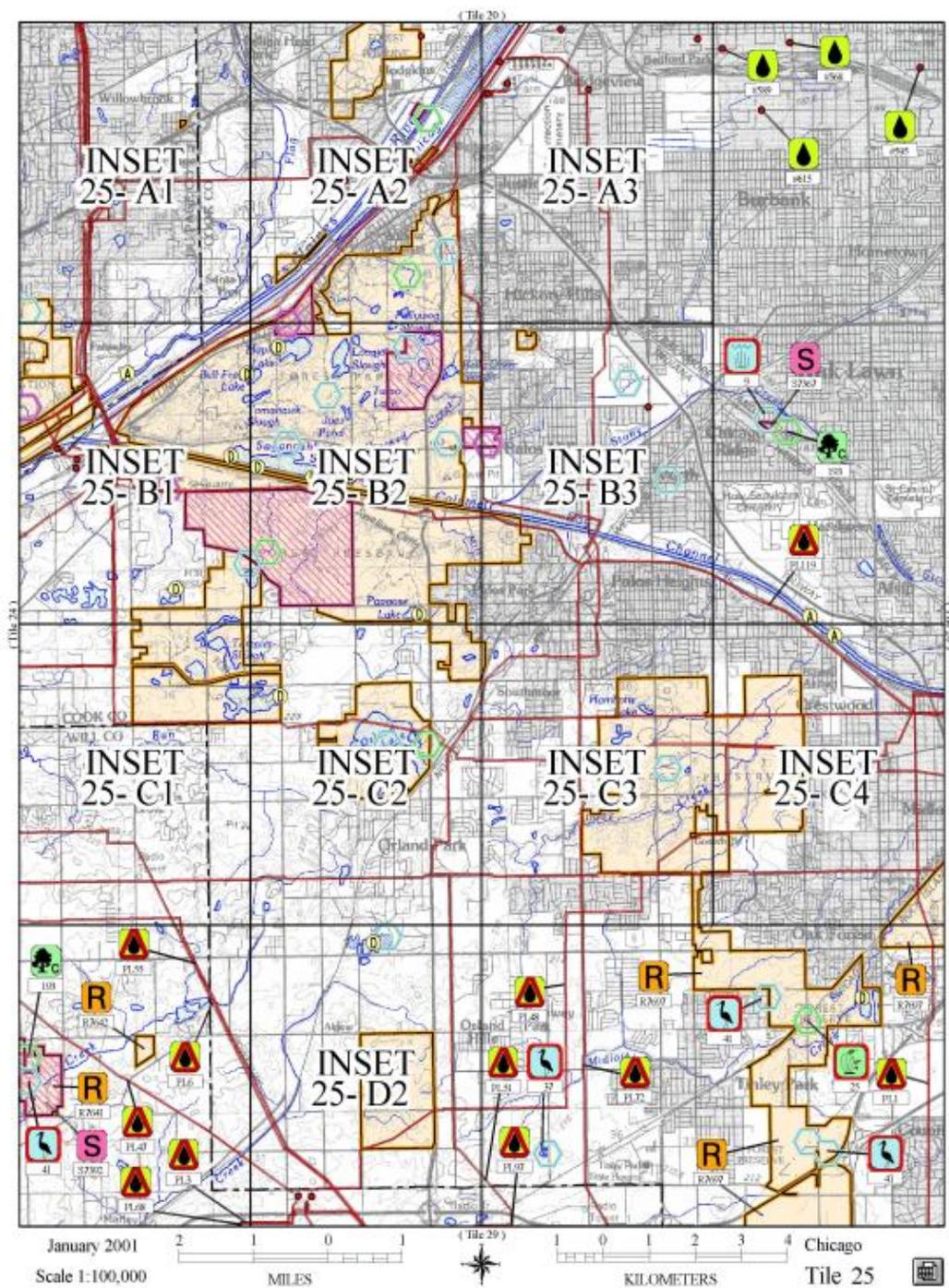
(b) (3), (b) (7)(F)



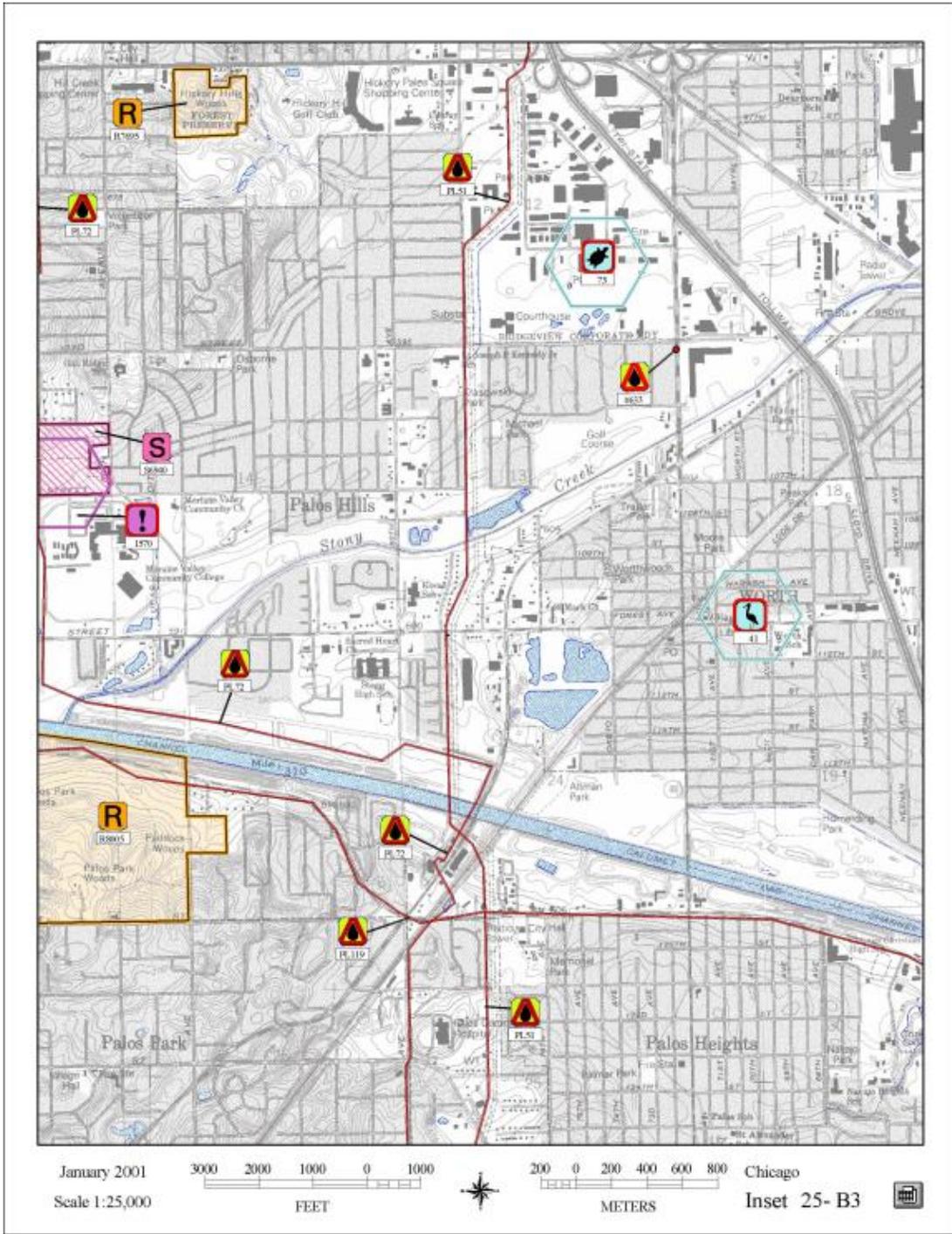
Alsip ESMs_Page_04



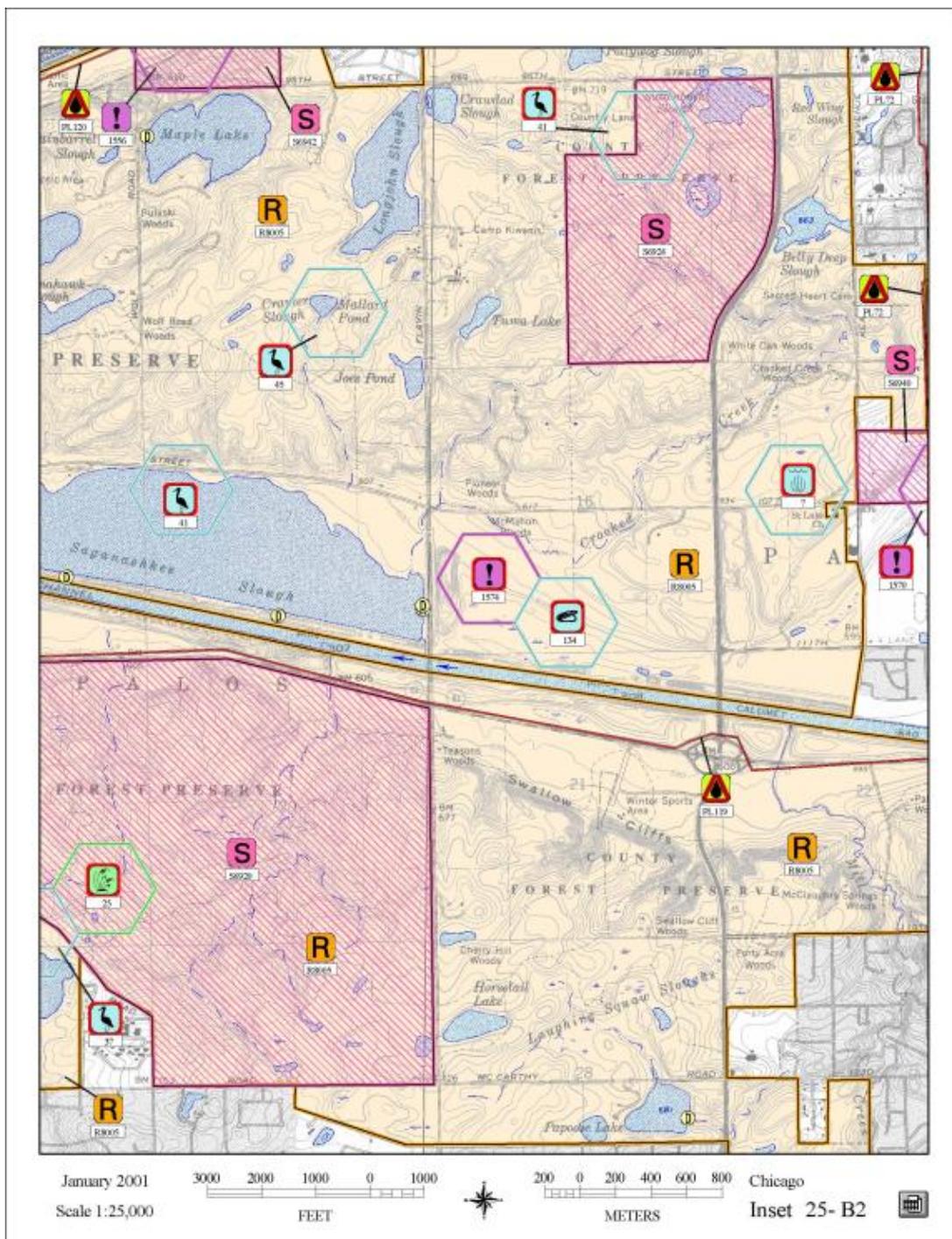
Alsip ESMs_Page_05



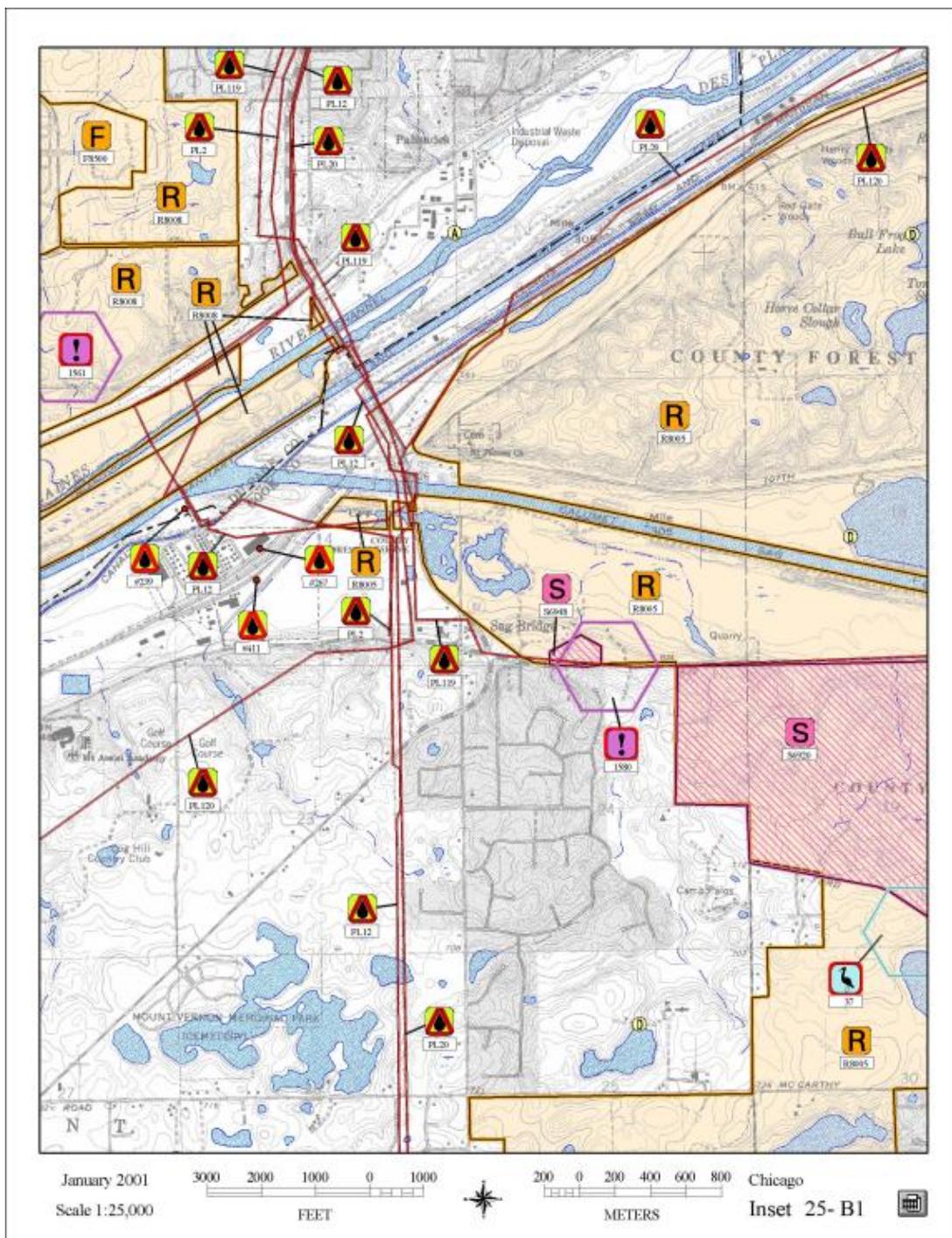
Alsip ESMs_Page_06



Alsip ESMs_Page_07

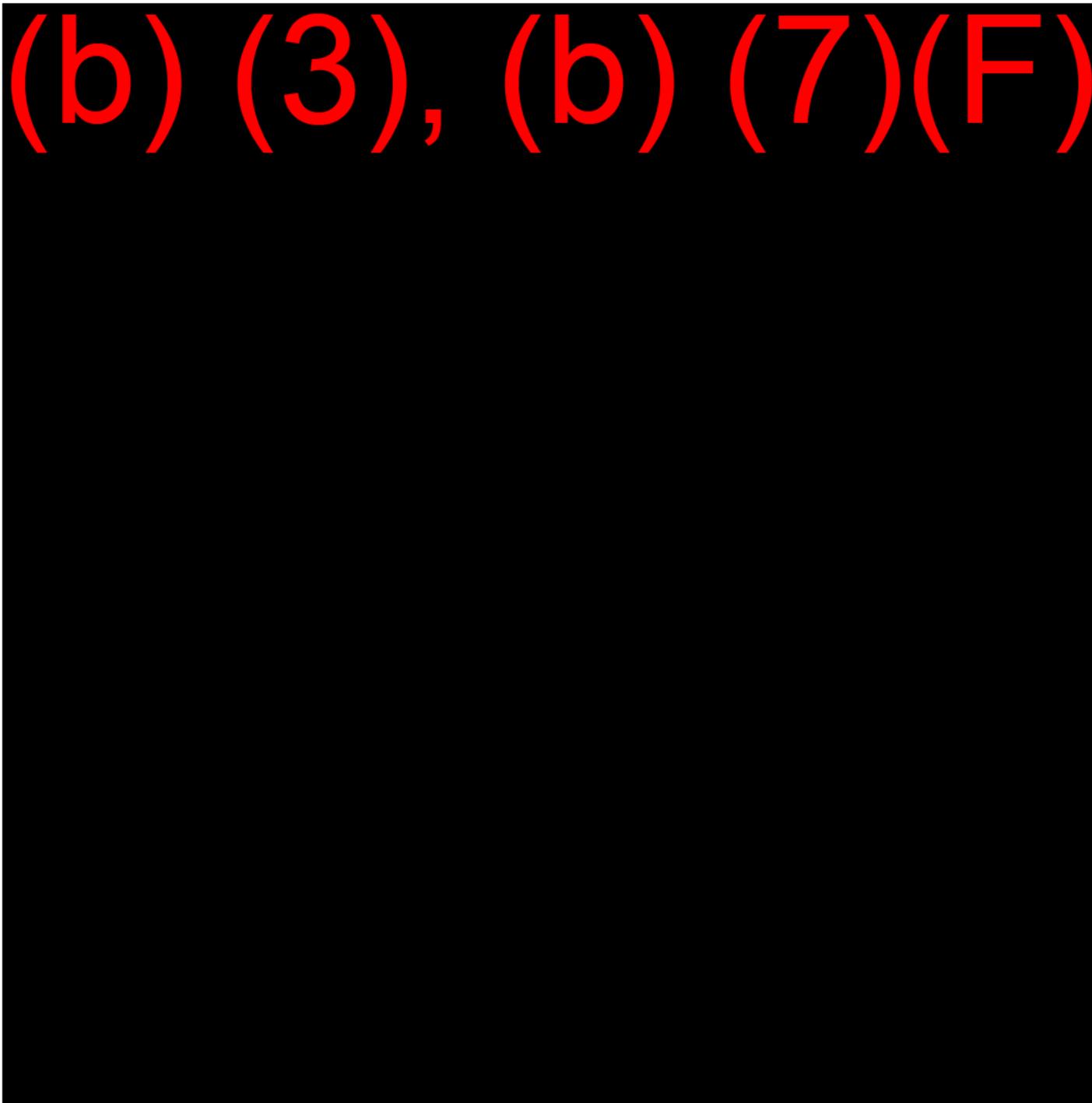


Alsip ESMs_Page_08



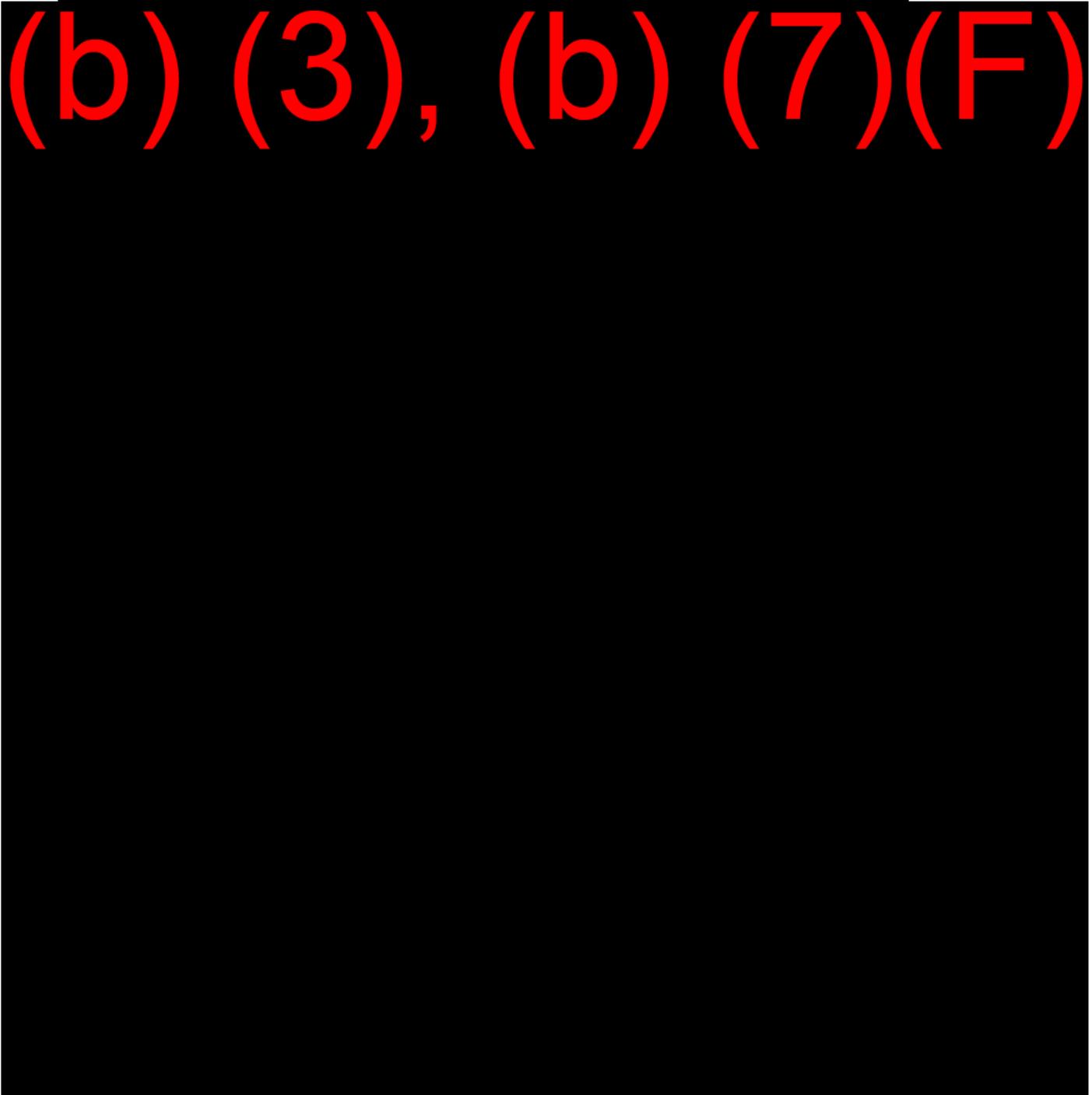
Alsip ESMs_Page_09

(b) (3), (b) (7)(F)



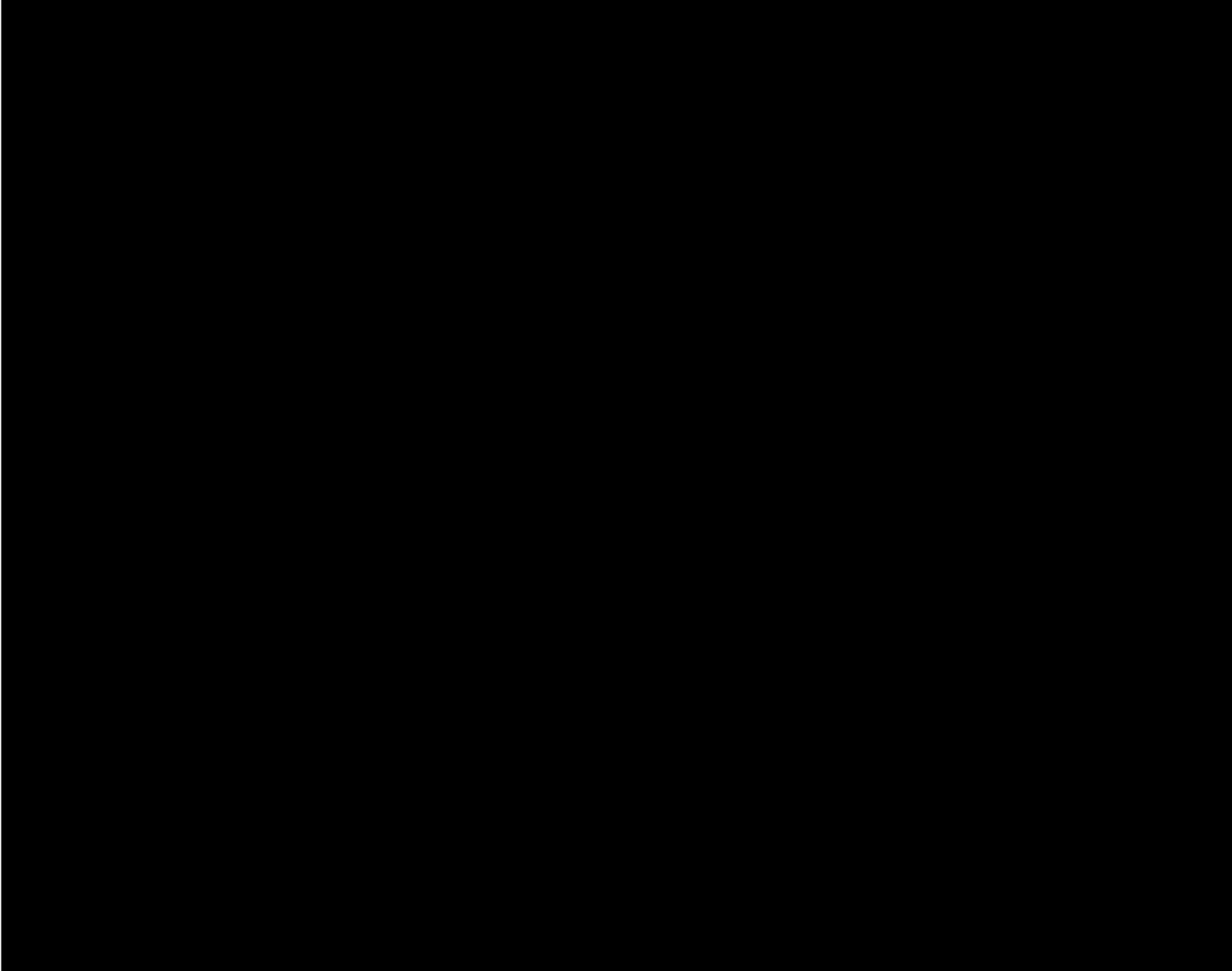
Alsip ESMs_Page_10

(b) (3), (b) (7)(F)



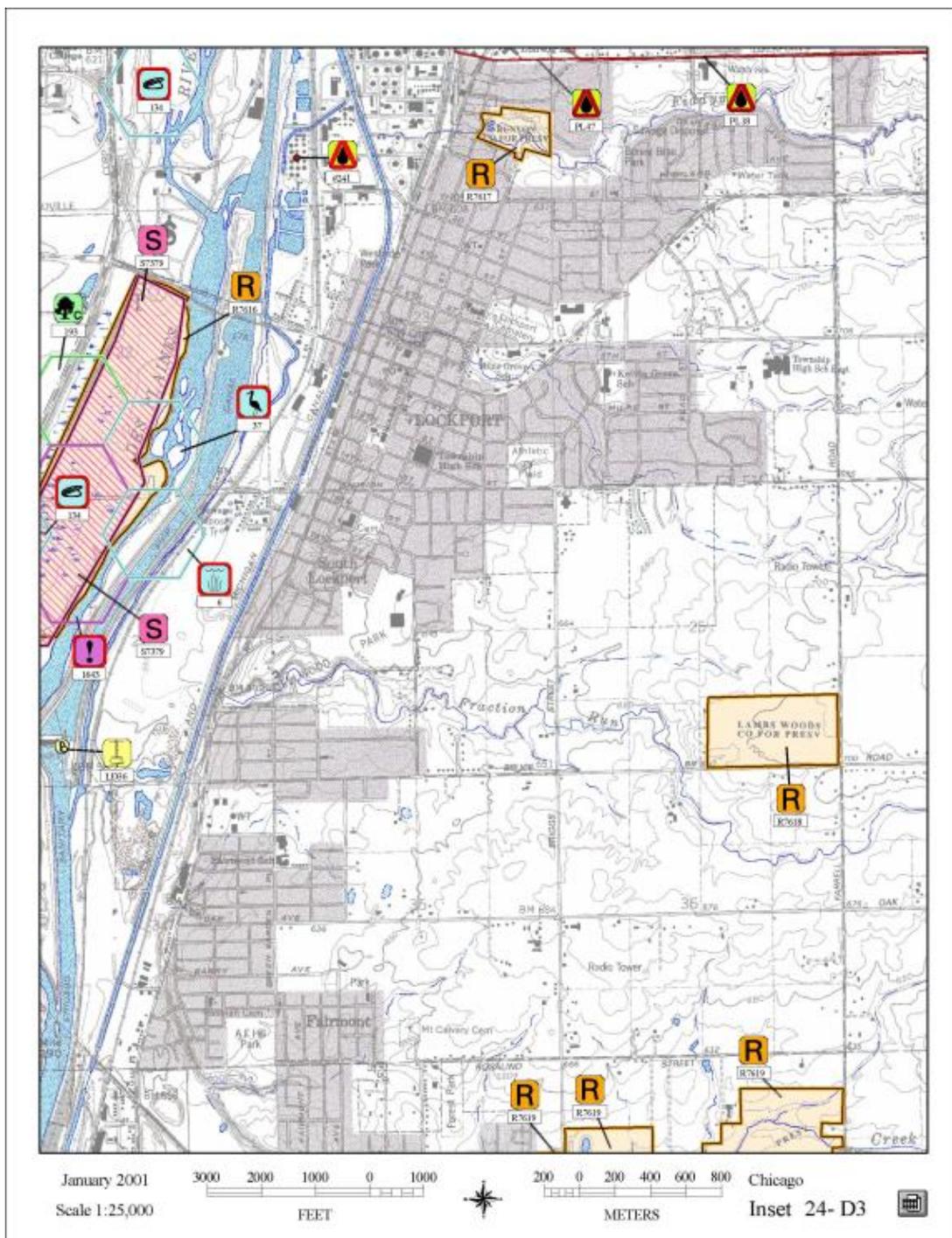
Alsip ESMs_Page_11

(b) (3), (b) (7)(F)



Scale 1:25,000 FEET METERS Inset 24-C3

Alsip ESMs_Page_12



Alsip ESMs_Page_13

Title 24

Sensitive Species¹ For a complete listing of all sensitive species mapped in this atlas, please refer to Appendix B.

| Listing | Contact Agency | Emergency Telephone | Contact Telephone |
|---------|---|--|-------------------|
| Federal | USFWS, Chicago Field Office, Barrington, IL | 800-800-5923 to page 612-660-9062 (Region 3 Spill Coordinator) | 847-381-2253 |
| State | IL DNR, Natural Heritage Program | 217-782-7860 | 217-785-8774 |
| | IL DNR, Northeast Regional Office (Cook County) | -- | 630-553-0164 |
| | IL DNR, Biologist for Du Page and Kane Counties | -- | 630-553-1372 |
| | IL DNR, Biologist for Will County | -- | 815-423-6370 |

Managed Areas

| Icon | Site Name | Managing Agency | Waterbody | Emergency # | Contact # | Comments |
|-------|---|---------------------------|--------------------------------------|-------------------------------|--------------|-------------------|
| | Argonne National Laboratory - Federal Land | U.S. Department of Energy | Des Plaines River, wetlands, streams | 630-252-3316 | 630-252-3912 | Research facility |
| R7423 | Egermann Woods - County Forest Preserve | Du Page County FPD | none | 630-942-6061 | 630-790-4900 | |
| R7424 | Hickory Woods - County Forest Preserve | Du Page County FPD | intermittent streams | 630-942-6061 | 630-790-4900 | |
| R7425 | Goodrich Woods - County Forest Preserve | Du Page County FPD | intermittent stream | 630-942-6061 | 630-790-4900 | |
| R7480 | Springbrook Prairie - County Forest Preserve | Du Page County FPD | Spring Brook, ponds | 630-942-6061 | 630-790-4900 | |
| R7481 | West Branch Riverway - County Forest Preserve | Du Page County FPD | W Branch Du Page River | 630-942-6061 | 630-790-4900 | |
| R7482 | Pioneer Park - County Forest Preserve | Du Page County FPD | W Branch Du Page River | 630-942-6061 | 630-790-4900 | |
| R7523 | Fox Hollow - County Forest Preserve | Du Page County FPD | wetlands, pond | 630-942-6061 | 630-790-4900 | |
| R7555 | Green Meadows - County Forest Preserve | Du Page County FPD | ponds | 630-942-6061 | 630-790-4900 | |
| R7605 | Romeoville Prairie - County Forest Preserve | Will County FPD | Des Plaines River, wetlands | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| R7607 | Riverview Farm - County Forest Preserve | Will County FPD | Du Page River | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| R7608 | Du Page River - County Forest Preserve | Will County FPD | Du Page River | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| R7610 | Konticek Grove - County Forest Preserve | Will County FPD | E Branch Du Page River, quarry ponds | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| R7612 | Lake Renwick Heron Rookery - County Forest Preserve | Will County FPD | Lake Renwick, Lily Cache Creek | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| R7616 | Lockport Prairie - County Forest Preserve | Will County FPD | Des Plaines River | 815-727-8700; 815-851-4444 | 815-727-8700 | |

Continued on next page

¹ 2000 Illinois Natural Heritage Data copyrighted and provided by the Illinois Department of Natural Resources, Division of Natural Heritage. To simplify the maps, rare species and most natural communities are represented as "point locations". As such, the hexagons DO NOT represent the full extent of any species or community occurrence. In particular, it should be assumed that mobile species likely occur throughout suitable habitat in the vicinity of the point representation.

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Tile 24, continued

| Managed Areas, continued | | | | | | |
|--------------------------|---|--------------------|--------------------------------------|-------------------------------|-------------------------------|----------------------------------|
| Icon | Site Name | Designating Agency | Waterbody | Emergency # | Contact # | Comments |
| R7617 | Ruayoa - County Forest Preserve | Will County FPD | Fridgym Creek | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| R7618 | Lamb Woods - County Forest Preserve | Will County FPD | none | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| R7619 | Lower Spring Creek - County Forest Preserve | Will County FPD | Spring Creek, ponds | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| R7621 | Theodore Marsh - County Forest Preserve | Will County FPD | Rock Run | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| R7622 | Alossio Prairie - County Forest Preserve | Will County FPD | Rock Run | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| R7641 | Messenger Woods - County Forest Preserve | Will County FPD | Spring Creek | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| R7692 | Black Partridge - County Forest Preserve | Cook County FPD | Des Plaines River, Goose Lake | 708-771-1000 | 708-771-1330 | |
| R8001 | Green Valley - County Forest Preserve | Du Page County FPD | Du Page River, streams, ponds | 630-942-6061 | 630-790-4900 | |
| R8002 | Isle a la Cache - County Forest Preserve | Will County FPD | Des Plaines River, wetlands | 815-727-8700; 815-851-4444 | 815-727-8700; 217-785-8686 | |
| R8003 | Keapataw - County Forest Preserve | Will County FPD | Des Plaines River, streams, wetlands | 815-727-8700; 815-851-4444 | 815-727-8700; 217-785-8686 | Seeps, marsh, dolomitic prairie. |
| R8004 | Wood Ridge - County Forest Preserve | Du Page County FPD | unnamed streams, ponds | 630-942-6061 | 630-790-4900 | |
| R8007 | Veteran Woods - County Forest Preserve | Will County FPD | unnamed streams, pond | 815-727-8700; 815-851-4444 | 815-727-8700; 217-785-8686 | |
| R8008 | Waterfall Glen - County Forest Preserve | Du Page County FPD | Des Plaines River, wetlands, streams | 630-942-6061 | 630-790-4900 | |

| Special Designated Areas | | | | | | |
|--------------------------|--|---------------------------------|---------------------------------------|-------------------------------|-------------------------------|---|
| Icon | Site Name | Designating Agency | Waterbody | Emergency # | Contact # | Comments |
| S470 | Du Page River - State Designated Resource Stream | IL DNR, Watershed Mgmt. Section | Du Page River | 217-782-7860 | 217-785-5907; 618-993-7200 | Class B - Biological Stream Characterization |
| S6750 | Long Run Seep - Nature Preserve | IL Nature Preserves Commission | Long Run Creek | 217-782-7860 | 815-467-4271; 217-785-8686 | Land owned by Illinois DNR |
| S6828 | Lake Renwick - Nature Preserve | IL Nature Preserves Commission | Lake Renwick | 217-782-7860; 815-727-6191 | 217-785-8686; 815-727-8700 | Owned by IL DNR, Will County FPD. |
| S6915 | Black Partridge Woods - Nature Preserve | IL Nature Preserves Commission | Des Plaines River, Goose Lake, stream | 708-771-1000 | 708-771-1330; | Owned by Cook County FPD. River bluffs, ravine forests, spring-fed streams. |
| S6938 | O'Hara Woods - Nature Preserve | IL Nature Preserves Commission | none | 815-886-4085 | 217-785-8686; 217-785-8686 | Significant geological and/or biological resources Emerg: Mike Limell, Romeoville EMA Owned/managed by Village of Romeoville. |

Continued on next page

Tile 24, continued

Special Designated Areas, continued

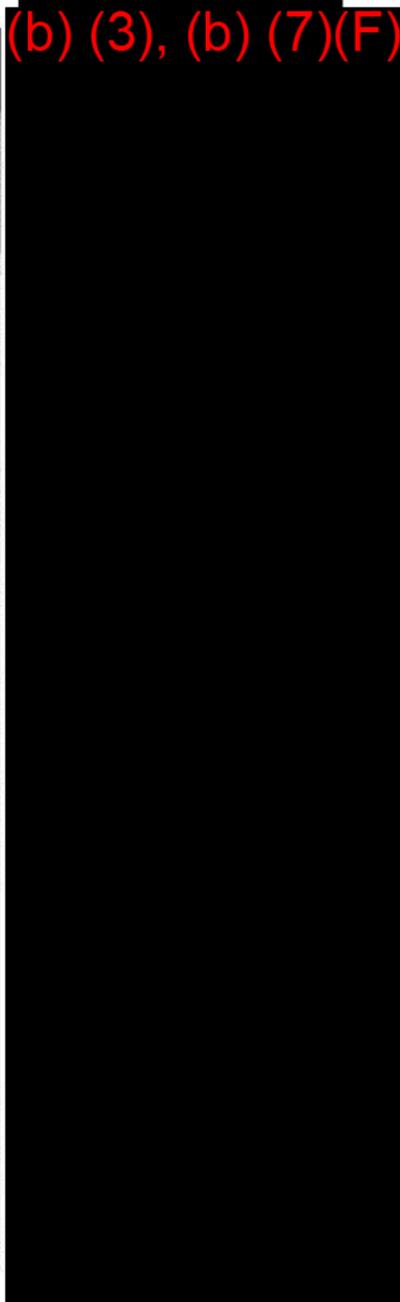
| Icon | Site Name | Designating Agency | Waterbody | Emergency # | Contact # | Comments |
|-------|--------------------------------------|--------------------------------|-----------------------------|--------------|-------------------------------|---|
| S6946 | Romeoville Prairie - Nature Preserve | IL Nature Preserves Commission | Des Plaines River | 815-727-6191 | 815-727-8700; 217-785-8686 | Remnant native ecosystems - prairie, marsh, fens, springs, floodplain forest Owned/managed by Will County FPD |
| S7379 | Lockport Prairie - Nature Preserve | IL Nature Preserves Commission | Des Plaines River | 312-751-5133 | 312-345-6633; 217-785-8686 | Remnant native ecosystems - rare community. Owned by Metro Water Recl. Dist of Chicago |
| S7392 | Messenger Woods - Nature Preserve | IL Nature Preserves Commission | Spring Creek, unnamed ponds | 815-727-6191 | 815-727-8700; 217-785-8686 | Owned/managed by Will County FPD. Remnant native ecosystems. |

Other Environmentally Sensitive Areas

| Icon | Site Name | Contact Agency | Waterbody | Emergency # | Contact # | Comments |
|-------|---|----------------|------------------|--------------|--------------|---|
| O7718 | Materials Services Prairie - Natural Area | IL DNR | wetlands, stream | 217-782-7860 | 217-785-8774 | Land owned by Material Service Corp. Site has rare dolomite prairie and wetlands. |

Navigation Locks and Dams

| Icon | Lock and Dam | Address | Waterbody | Emergency # | Contact # |
|------|---------------|------------------------------|-----------------------|--------------|--------------|
| LD36 | Lockport Lock | 2502 Channel Dr, Lockport IL | Illinois River, 291.1 | 815-838-8536 | 815-838-0536 |



(b) (3), (b) (7)(F)

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Tile 24, continued

| Icon | Facility, Operator | Address | Waterbody | Response Plan | Marine Transfer | Products | Emergency # | Contact # |
|-------|---|------------------------------|---|---------------|-----------------|--|------------------------|------------------------|
| #241 | Equilon Lockport Terminal, Equilon Enterprises, LLC | 301 W Second St, Lockport | Chicago Sanitary and Ship Canal, Mile 293.3 LDB | Y | N | petroleum products, crude oil | 800-634-4325 | 815-638-8461 |
| #251 | CTTGO - Lemont Refinery, CTTGO Petroleum Corp. | 135th St & W New Ave, Lemont | Chicago Sanitary and Ship Canal, Mile 297.5 LDB | Y | N | Petroleum, diesel fuel, lubricating oils | 630-553-6945 | 630-257-7761 ext. 4117 |
| #275 | Korall Corp. - Lemont Facility, Korall Corp. | 305 W New Ave, Lemont | Chicago Sanitary and Ship Canal, Mile 297.7 | Y | Y | petroleum products, asphalt cement | 708-388-4023 | 630-257-8550 |
| #278 | Heritage Environmental Services, Inc, Heritage Environmental Services, Inc. | 15330 Canal Bank Rd, Lemont | Chicago Sanitary and Ship Canal, Mile 301.1 | Y | N | waste oil, fuel oil, mineral oil, gasoline, diesel | 630-739-1151 ext. 234 | 630-739-1151 ext. 213 |
| #394 | Will County Station, Midwest Generation, LLC | 539 E Romeo Rd, Romeoville | Chicago Sanitary and Ship Canal, Mile 296.0 RDB | Y | N | fuel oils #1 & 2, mineral, lubricating oils | 815-886-1010 ext. 2202 | 815-886-1010 ext. 2289 |
| #477 | Argonne National Laboratory, U.S Department of Energy | 97009800 S Cass Ave, Argonne | Sawmill Creek | Y | N | fuel oil, diesel fuel, heating oil | 630-252-6131 | 630-252-3316 |
| #610 | Seneca Petroleum Co., Inc., Seneca Petroleum Co., Inc. | 12460 S New Ave, Lemont | Chicago Sanitary and Ship Canal | N | N | fuel oil, naphtha, asphalt, asphalt emulsifier, sol. | 708-257-2268 | 708-396-1100 |
| #1079 | Egan Marine Corp., Egan Marine Corp. | 15200 Canal Bank Rd, Lemont | Chicago Sanitary and Ship Canal | N | Y | fuel oil | 630-739-0947 | 630-739-0947 |

Petroleum Pipelines

| Icon | Company Name | Route Name | # Lines | Diameters | Products | Emergency # | Contact # |
|------|----------------------------|---|---------|------------------------------------|------------------|----------------------------|-------------------------|
| PL6 | Lakehead Pipeline Co. | Chicago Crude Line | 1 | 34-inch | Crude Oil | 800-858-5253 | 219-922-3133, ext. 101 |
| PL12 | West Shore Pipeline Co. | Green Bay to Chicago | 2 | 16-inch, 10-inch | Refined Products | 888-625-7310 | 630-257-3742 |
| PL14 | Wolverine Pipeline Co. | Joliet to Lockport | 1 | 16-inch | Refined Products | 888-337-5094 | 616-323-2491, ext. 24 |
| PL18 | Mobil Pipeline Co. | S-232 Lockport to Patoka | 1 | 18-inch | Crude Oil | 888-337-5094 | 815-423-7760 |
| PL19 | CTTGO Lemont Refinery | Feed Lines to Wolverine Lockport Pump Station | 1 | 18-inch | Refined Products | 630-553-6945 | 630-257-7761, ext. 4117 |
| PL20 | Amoco Pipeline Co. | White Oak | 1 | 10-inch, 12-inch, 8-inch | Refined Products | 800-548-6482 | 630-836-5315 |
| PL32 | Equilon Pipeline Co. | Lockport Facility Lines | 4 | 20-inch, 24-inch, 16-inch, 16-inch | Refined Products | 800-634-4325; 713-241-2121 | 708-563-6373 |
| PL47 | Chicap/Unocal Pipeline Co. | Monroe St to CTTGO | 2 | 16-inch, 12-inch | Crude Oil | 800-285-8744 | 708-479-9260 |

Continued on next page

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Title 24, continued

Petroleum Pipelines, continued

| Icon | Company Name | Route Name | # Lines | Diameters | Products | Emergency # | Contact # |
|-------|-------------------------------------|---------------------------------------|---------|-----------|-------------------------|-------------------------------|-----------------------|
| PL155 | Wolverine Pipeline Co. | Lockport to Kennedy Ave | 1 | 16-inch | Refined Products | 888-337-5004 | 616-323-2491, ext. 24 |
| PL169 | Mobil Pipeline Co. | S-199 Lemont Line | 1 | 12-inch | Refined Products | 888-337-5004 | 815-423-7760 |
| PL118 | Texas Eastern Products Pipeline Co. | TEPPCO - Manhattan Junction to Lemont | 1 | 6-inch | Liquified Petroleum Gas | 800-877-3636; 713-759-4765 | 800-877-3636 |
| PL120 | West Shore Pipeline Co. | Lockport to Harlem 10-inch | 1 | 10-inch | Refined Products | 888-625-7310 | 847-439-0270 |
| PL128 | Marathon Ashland Pipeline, LLC | Hammond to Lockport 6" | 1 | 6-inch | Refined Products | 800-537-6644 | 419-421-2121 |

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Title 25

Sensitive Species¹ For a complete listing of all sensitive species mapped in this atlas, please refer to Appendix B.

| Listing | Contact Agency | Emergency Telephone | Contact Telephone |
|---------|---|--|-------------------|
| Federal | USFWS Chicago Field Office, Barrington, IL | 800-890-5923 to page 612-660-9062 (Region 3 Spill Coordinator) | 847-381-2253 |
| State | IL DNR, Natural Heritage Program | 217-782-7860 | 217-785-8774 |
| | IL DNR, Northeast Regional Office (Cook County) | -- | 630-553-0164 |
| | IL DNR, Biologist for Du Page and Kane Counties | -- | 630-553-1372 |
| | IL DNR, Biologist for Will County | -- | 815-423-6370 |

Managed Areas

| Icon | Site Name | Managing Agency | Waterbody | Emergency # | Contact # | Comments |
|-------|---|---------------------------|--|-------------------------------|---------------|----------------------------|
| R5000 | Argonne National Laboratory - Federal Land | U.S. Department of Energy | Des Plaines River, wetlands, streams | 630-252-3316 | 630-252-3912 | Research facility |
| R7556 | Burr Oak - County Forest Preserve | Du Page County FPD | none | 630-942-6061 | 630-790-4900 | |
| R7641 | Messenger Woods - County Forest Preserve | Will County FPD | Spring Creek | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| R7642 | Spring Creek - County Forest Preserve | Will County FPD | Spring Creek | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| R7687 | Salt Creek Division - County Forest Preserve | Cook County FPD | Salt Creek, Des Plaines River | 708-771-1000 | 708-771-1330 | |
| R7695 | Hickory Hills Woods - County Forest Preserve | Cook County FPD | none | 708-771-1000 | 708-771-1330 | |
| R7697 | Tinley Creek Division - County Forest Preserve | Cook County FPD | wetlands, streams, many lakes | 708-771-1000 | 708-771-1330 | |
| R7700 | Cook County - County Forest Preserve | Cook County FPD | ponds, streams, wetlands | 708-771-1000 | 708-771-1330 | |
| R8000 | Columbia Woods - County Forest Preserve | Cook County FPD | Des Plaines River | 708-771-1000 | 708-771-1330; | Remnant native ecosystems. |
| R8005 | Palm-Sag Division Area - County Forest Preserve | Cook County FPD | Cal Sag Channel, Saganshkee & McGinnis Sloughs | 708-771-1000 | 708-771-1330; | Remnant native ecosystems. |
| R8008 | Waterfall Glen - County Forest Preserve | Du Page County FPD | Des Plaines River, wetlands, streams | 630-942-6061 | 630-790-4900 | |

Special Designated Areas

| Icon | Site Name | Designating Agency | Waterbody | Emergency # | Contact # | Comments |
|-------|--|--------------------------------|---|--------------|-------------------------------|--|
| S6920 | Cap Sauer's Holdings - Nature Preserve | IL Nature Preserves Commission | Saganshkee Slough, Cal-Sag Channel (adj.) | 708-771-1000 | 708-771-1330; 217-785-8686 | Owned by Cook Co. Forest Preserve.. |
| S6924 | Cranberry Slough - Nature Preserve | IL Nature Preserves Commission | wetlands | 708-771-1000 | 708-771-1330; 217-785-8686 | Remnant native ecosystems- forest, prairie, and marsh. Owned by Cook County EPD. |

Continued on next page

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Tile 25, continued

| Icon | Site Name | Designating Agency | Waterbody | Emergency # | Contact # | Comments |
|-------|---|--------------------------------|------------------------------|-----------------------|--|--|
| S6940 | Palos Fen - Nature Preserve | IL Nature Preserves Commission | wetlands | 708-771-1000 | 708-771-1330; 217-785-8686 | Remnant native ecosystems - fen, marsh, oak savanna Owned by Cook County FPD. |
| S6942 | Paw Paw Woods - Nature Preserve | IL Nature Preserves Commission | Des Plaines River floodplain | 708-771-1000 | 708-771-1330; 217-785-8686 | Remnant native ecosystems - bluff and floodplain forest. Owned by Cook County FPD. |
| S6948 | Sagawan Canyon - Nature Preserve | IL Nature Preserves Commission | unnamed stream | 708-771-1000 | 708-771-1310; 217-785-8686 | Remnant native ecosystems - canyon and ravine forests, cliff communities. Owned by Cook County FPD. |
| S7367 | Chicago Ridge Prairie - Nature Preserve | IL Nature Preserves Commission | none | 312-903-4632 paper | 708-857-2200; 708-857-2201; 217-785-8686 | Owned by Oak Lawn Park Dist. Emerg#: pages John Baran, Maint. And Safety Dir. Contacts: Maddie Kelly, Dir.; Joel Craig |
| S7392 | Messenger Woods - Nature Preserve | IL Nature Preserves Commission | Spring Creek, unnamed ponds | 815-727-6191 | 815-727-8700; 217-785-8686 | Owned by Will County FPD. Remnant native ecosystems. |
| S7400 | Santa Fe Prairie - Nature Preserve | IL Nature Preserves Commission | Des Plaines River tributary | 217-782-7860 | 217-785-8686 | Recently dedicated Nature Preserve. Site has rare biological/geological resources. |

(b) (3), (b) (7)(F)

| Icon | Facility, Operator | Address | Waterbody | Response Plan | Marine Transfer | Products | Emergency # | Contact # |
|------|---|---|--|---------------|-----------------|--|-------------------------------|--------------|
| #110 | Corn Products Intl., Inc. - Argo Plant, Corn Products Intl., Inc. | 6400 S Archer, Argo | Chicago Sanitary and Ship Canal, Mile 312 | N | N | petroleum and vegetable oils | 708-563-2400 | 708-563-2400 |
| #237 | GATX Terminals Corp., GATX Terminals Corp. | 8500 W 68 th St, Argo | Chicago Sanitary and Ship Canal, Mile 311.2 LDB | Y | Y | Petroleum, tallow, petrochemicals | 708-458-1330 | 708-496-2862 |
| #238 | Equilon Argo Terminal, Equilon Enterprises, LLC | 8600 & 8800 W 71 st St, Bedford Park | Chicago Sanitary and Ship Canal, Mile 310.8 LDB | Y | N | petroleum products, petrochemicals | 708-774-3033; 800-634-4325 | 708-563-6312 |
| #239 | IMTT-Lemont, IMTT | 13589 Main St, Lemont | Chicago Sanitary and Ship Canal, Cal-Sag Channel, Mile 303 | Y | Y | asphalt, tube oil, vegetable oil | 630-257-3796 ext. 3972 | 630-257-3950 |
| #252 | The Valvoline Co., Ashland Petroleum Co. | 84508500 S Willow Springs Rd, Willow Springs | Chicago Sanitary and Ship Canal, Mile 308.5 LDB | Y | N | lubricating oil base stocks, petroleum | 815-436-1766 | 708-579-4660 |

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Title 25, continued

| Icon | Facility, Operator | Address | Waterbody | Response Plan | Marine Transfer | Products | Emergency # | Contact # |
|------|---|---------------------------------------|---|---------------|-----------------|---|----------------------------|--------------|
| #267 | Bodie - Hoover Petroleum Corp., Lyons | 13383 Main St, Lemont | Calumet Saginaw Channel | Y | N | petroleum products, oil-base lubricants | 815-834-0340 (h) | 630-257-7781 |
| #277 | Marathon Willow Springs Terminal, Marathon Oil Co. | 7600 La Grange Rd, Willow Springs | Chicago Sanitary and Ship Canal | Y | N | petroleum products, gasoline | 630-904-2863 | 708-839-5220 |
| #282 | Argo Terminal Co. - Great Lakes Terminal, Argo Terminal Co. | 8800 W 71st St, Bedford Park | Chicago Sanitary and Ship Canal, Mile 310.8 | Y | N | petroleum products, industrial solvents | 773-735-0586 | 773-735-0586 |
| #286 | Unocal - Chicag Pipeline, Union Oil Co. | 18401 S Wolf Rd, Mokena | Marley Creek | Y | N | petroleum products, crude oil | 800-443-7343 ext. 051329 | 708-479-9260 |
| #411 | Osco, Inc., Osco, Inc. | 13351 Main St & Miley St, Lemont | Chicago Sanitary and Ship Canal | Y | N | fuel oil, gasoline, diesel | 630-257-8000 | 630-257-8000 |
| #419 | 3M Tape Division, Minnesota Mining & Manufacturing | 6850 S Harlem Ave, Summit Argo | Chicago Sanitary and Ship Canal | Y | N | fuel & mineral oil | 708-496-6666 | 708-496-6500 |
| #527 | Ashland Chemical Co., Ashland Chemical Co. | 8500 S Willow Springs, Willow Springs | Des Plaines River, Chicago Sanitary and Ship Canal, Mile 0.25 | Y | N | hexanes, mineral seal oil, JP5 | 708-579-0241 | 708-588-2900 |
| #536 | Central Blacktop Co., Inc., Central Blacktop Co., Inc. | 6301 S East Ave, Hodgkins | Des Plaines River | N | N | petr. asphalt, distillates, redicote 95-5 | 708-257-7479 | 708-482-9660 |
| #567 | Houghton Int'l, Inc., Houghton Int'l, Inc. | 6600 S Nashville Ave, Bedford Park | Chicago Sanitary and Ship Canal, Mile 309 | N | N | kerosene, mineral oil | 708-458-5533; 312-767-6760 | 773-767-7670 |
| #568 | IKO Chicago, Inc., IKO Chicago, Inc. - Chicago Plant | 6600 S Central, Bedford Park | None | N | N | petroleum asphalt | 708-496-2800 | 708-496-2800 |
| #582 | Mobil Mokena Station, Mobil Oil Corp. | 10915 W 183rd, Mokena | Ditches | N | N | crude oil (sweet) | 214-658-2369 | 708-479-2677 |
| #589 | Nalco Chemical Co., Nalco Chemical Co. | 6216 W 66th Pl, Chicago | Chicago Sanitary and Ship Canal, Mile 309 | N | N | #2 diesel fuel, aromatics, proc. oil, mineral oil | 708-496-5247 | 708-496-5000 |
| #595 | Occidental Chemical Corp., Occidental Chemical Corp. | 4201 W 69th St, Chicago | None | N | N | #6 fuel oil | 773-284-0079 | 773-284-0079 |
| #615 | The C.P. Hall Co., The C.P. Hall Co. | 5851 W 73rd St, Bedford Park | Chicago Sanitary and Ship Canal | N | N | soybean oil, tall oil | 708-594-5980 | 708-594-5077 |
| #633 | Yellow Freight System, Inc., Yellow Freight System, Inc. | 10301 S Harlem Ave, Chicago Ridge | Stony Creek | N | Y | waste oil, motor, gear oil, diesel fuel #2 | 708-636-4601 | 913-344-3615 |

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Title 25, continued

| Icon | Company Name | Route Name | # Lines | Diameters | Products | Emergency # | Contact # |
|-------|-------------------------------------|--|---------|--------------------------|------------------|-------------------------------|------------------------|
| PL1 | Chicago/Unocal Pipeline Co. | Monroe Station to Blue Island Refinery | 1 | 12-inch | Crude Oil | 800-285-8744 | 708-479-9260 |
| PL2 | West Shore Pipeline Co. | Canal to Des Plaines 16-inch | 1 | 16-inch | Refined Products | 888-625-7310 | 847-439-0270 |
| PL3 | Chicago/Unocal Pipeline Co. | Panoka to Mokena | 1 | 26-inch | Crude Oil | 800-285-8744 | 708-479-9260 |
| PL6 | Lakehead Pipeline Co. | Chicago Crude Line | 1 | 34-inch | Crude Oil | 800-858-5253 | 219-922-3133, ext. 101 |
| PL12 | West Shore Pipeline Co. | Green Bay to Chicago | 2 | 16-inch, 10-inch | Refined Products | 888-625-7310 | 630-257-3742 |
| PL20 | Amoco Pipeline Co. | White Oak | 1 | 10-inch, 12-inch, 8-inch | Refined Products | 800-548-6482 | 630-836-5315 |
| PL46 | Chicago/Unocal Pipeline Co. | Mokena St to Monroe St | 1 | 12-inch | Crude Oil | 800-285-8744 | 708-479-9260 |
| PL47 | Chicago/Unocal Pipeline Co. | Monroe St to Cigo | 2 | 16-inch, 12-inch | Crude Oil | 800-285-8744 | 708-479-9260 |
| PL48 | Chicago/Unocal Pipeline Co. | Mokena St to Clark Refinery | 1 | 14-inch | Crude Oil | 800-285-8744 | 708-479-9260 |
| PL49 | Texas Eastern Products Pipeline Co. | TEPPCO - Chicago GATX to Allied Oil | 1 | 14-inch | | 800-877-3636; 713-759-4765 | 800-877-3636 |
| PL50 | Texas Eastern Products Pipeline Co. | TEPPCO - Cargo GATX to Shell | 1 | 14-inch | Refined Products | 800-877-3636; 713-759-4765 | 800-877-3636 |
| PL51 | Texas Eastern Products Pipeline Co. | TEPPCO - Seymour, IN to Chicago GATX | 1 | 14-inch | Refined Products | 800-877-3636; 713-759-4765 | 800-877-3636 |
| PL55 | Wolverine Pipeline Co. | Lockport to Kennedy Ave | 1 | 16-inch | Refined Products | 888-337-5004 | 616-323-2491, ext. 24 |
| PL68 | Mobil Pipeline Co. | S-175 Panoka to Mokena | 1 | 30-inch | Crude Oil | 888-337-5004 | 815-423-7760 |
| PL72 | Equilon Pipeline Co. | Footone to Argo | 1 | 14-inch | Refined Products | 800-634-4325; 713-241-2121 | 708-563-6373 |
| PL74 | Equilon Pipeline Co. | Argo to Des Plaines | 1 | 14-inch | Refined Products | 800-634-4325; 713-241-2121 | 708-563-6373 |
| PL97 | Texas Eastern Products Pipeline Co. | TEPPCO - Mokena Junction to Mokena | 1 | 14-inch | | 800-877-3636; 713-759-4765 | 800-877-3636 |
| PL98 | Texas Eastern Products Pipeline Co. | TEPPCO - Orland Park to Blue Island Bulfinch | 1 | 14-inch | Refined Products | 800-877-3636; 713-759-4765 | 800-877-3636 |
| PL119 | West Shore Pipeline Co. | East Chicago to Madison 12-inch | 1 | 12-inch | Refined Products | 888-625-7310 | 847-439-0270 |
| PL120 | West Shore Pipeline Co. | Lockport to Harlem 10-inch | 1 | 10-inch | Refined Products | 888-625-7310 | 847-439-0270 |
| PL128 | Marathon Ashland Pipeline, LLC | Hammond to Lockport 6" | 1 | 6-inch | Refined Products | 800-537-6644 | 419-421-2121 |
| PL131 | Marathon Ashland Pipeline, LLC | Willow Springs 14" Product Lateral | 1 | 14-inch | Refined Products | 800-537-6644 | 419-421-2121 |

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Title 26

Sensitive Species¹ For a complete listing of all sensitive species mapped in this atlas, please refer to Appendix B.

| Listing | Contact Agency | Emergency Telephone | Contact Telephone |
|---------|---|--|-------------------|
| Federal | USFWS Chicago Field Office, Barrington, IL | 800-890-5923 to page 612-600-9662 (Region 3 Spill Coordinator) | 847-381-2253 |
| State | IL DNR, Natural Heritage Program | 217-782-7860 | 217-785-8774 |
| | IL DNR, Northeast Regional Office (Cook County) | - | 630-553-0164 |

Managed Areas

| Icon | Site Name | Managing Agency | Waterbody | Emergency # | Contact # | Comments |
|-------|--|-------------------------------------|---|--------------|--------------|----------|
| R7696 | Calumet Division - County Forest Preserve | Cook County FPD | Grand Calumet, Little Calumet Rivers, Wolf Lake | 708-771-1000 | 708-771-1330 | |
| R7697 | Tinley Creek Division - County Forest Preserve | Cook County FPD | wetlands, streams, many lakes | 708-771-1000 | 708-771-1330 | |
| R7703 | Thorn Creek Division - County Forest Preserve | Cook County FPD | Thorn Creek, Calumet River, wetlands, lakes | 708-771-1000 | 708-771-1330 | |
| S6755 | William W. Powers - State Conservation Area | IL DNR, Division of Land Management | | 217-782-7860 | 773-646-3270 | |

Special Designated Areas

| Icon | Site Name | Designating Agency | Waterbody | Emergency # | Contact # | Comments |
|-------|--|--------------------------------|-----------------------|------------------|--------------------------------|--|
| S845 | Geasburg-Markham Prairie - Nature Preserve | IL Nature Preserves Commission | wetlands | 708-687-6028 (h) | 708-687-6028 (h); 217-785-8686 | Land owned by Northeastern Illinois University, ITC, and others. Contacts: Rob Paizer, Land Manager & IL Nature Preserves Commission |
| S6931 | Jurgenson Woods - Nature Preserve | IL Nature Preserves Commission | wetlands | 708-771-1000 | 708-771-1330; 217-785-8686 | Owned/managed by Cook County FPD |
| S6930 | Sand Ridge - Nature Preserve | IL Nature Preserves Commission | Green Lake, wetlands | 708-771-1000 | 708-771-1330; 217-785-8686 | Remnant native ecosystems - sand dunes, prairie, savanna |
| S6956 | Thornton-Lansing Road - Nature Preserve | IL Nature Preserves Commission | creek, lake, wetlands | 708-771-1000 | 708-771-1330; 217-785-8686 | Owned/managed by Cook County FPD |
| S7403 | Dropsed Prairie - Nature Preserve | IL Nature Preserves Commission | none | 217-782-7860 | 217-785-8686 | Remnant native ecosystems - marsh, woodland |
| S7404 | Painbrush Prairie - Nature Preserve | IL Nature Preserves Commission | none | 217-782-7860 | 217-785-8686 | Recently dedicated Nature Preserve. Site has rare biological/geological resources |
| | | | | 217-782-7860 | 217-785-8686 | Recently dedicated Nature Preserve. Site has rare biological/geological resources |

¹ 2000 Illinois Natural Heritage Data copyrighted and provided by the Illinois Department of Natural Resources, Division of Natural Heritage. To simplify the maps, rare species and most natural communities are represented at "point locations". As such, the hexagons DO NOT represent the full extent of any species or community occurrence. In particular, it should be assumed that mobile species likely occur throughout suitable habitat in the vicinity of the point representation.

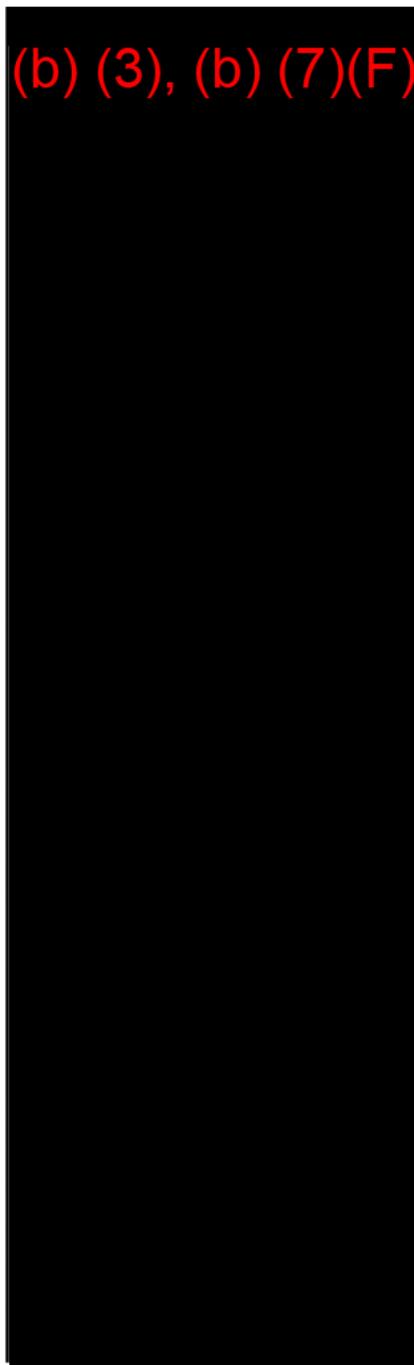
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| Icon | Marina Name | Address | Waterbody | Slips | Fuel Pump | Emergency # | Contact # |
|-------|--|---------------------------------------|---------------------------------|-------|-----------|------------------|--------------|
| M0287 | Croissant Marina | 14002 S Croissant Dr, Burnham IL | Little Calumet River, 325.5 LDB | 40 | N | 708-891-0400 | 708-891-0400 |
| M0295 | Pier 11 Marina | 826 E 138th St, Chicago IL | Little Calumet River, 323.2 LDB | 134 | N | 773-415-1359 | 773-468-9605 |
| M0296 | Reimer's Marine Service | 13515 S Forest Ave, Chicago IL | Little Calumet River, 322.7 LDB | 5 | N | 708-614-7656 (b) | 773-468-3776 |
| M0299 | Windjammer Marina | 13701 S Hoxie Ave, Chicago IL | Calumet River, 326.2 LDB | 45 | N | none | 773-646-2077 |
| M0338 | Skipper's Marina | 13421 S Vernon Ave, Riverdale IL | Little Calumet River, 322.8 RDB | 25 | Y | 312-928-5291 | 773-928-5290 |
| M0339 | Triplex Marina | 131st St and Halsted St, Riverdale IL | Little Calumet River, 320.0 LDB | 40 | Y | 708-849-2200 | 708-849-2200 |
| M0505 | Marine Services Corp. / Dolton Yacht Basin | 140 Cottage Grove Ave, Dolton IL | Little Calumet River, 334.0 LDB | Y | N | 847-699-0188 | 708-841-5660 |
| M0506 | Riley's Marina | 14042 Croissant Dr, Burnham IL | Little Calumet River, 325.2 LDB | 40 | N | none | 708-868-0567 |
| M6655 | Riverside Marina & Lounge | 13603 S Calhoun Ave, Chicago IL | Little Calumet River | Y | | none | 773-646-5300 |

Navigation Locks and Dams

| Icon | Lock and Dam | Address | Waterbody | Emergency # | Contact # |
|------|------------------------|-----------------------------------|-----------------------|--------------|--------------|
| LD38 | Thomas J. O'Brien Lock | 134th & Calumet River, Chicago IL | Illinois River, 326.5 | 312-646-2183 | 312-646-2183 |



(b) (3), (b) (7)(F)

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(b) (3), (b) (7)(F)

| Icon | Facility, Operator | Address | Waterbody | Response Plan | Marine Transfer | Products | Emergency # | Contact # |
|------|--|---|--|---------------|-----------------|--|-----------------------------------|-------------------------------|
| #243 | Stochaven Chicago Inc., Stolt-Neilsen Terminals, Inc. | 12200 S Stony Island Ave, Chicago | Lake Calumet, Mile 327.9 LDB | Y | Y | Petrochemicals, animal fats, vegetable oils | 708-429-7554 (h); 312-349-4304 | 773-646-4440; 773-646-8147 |
| #244 | Cargill, Inc., Cargil, Inc. | 12200 S Torrence Ave, Chicago | Calumet River, Mile 328.8 RDB | Y | N | soybean oil | 773-375-7353; 312-343-1686 | 773-375-7255; 219-755-0135 |
| #247 | S.T. Services, Support Terminal Services, Inc. | 3210 W 131 st St, Blue Island | Calumet Saginaw Channel, Mile 316.5 RDB | Y | N | petroleum products, natural gas, oil | 708-388-5891 | 708-388-5801 |
| #248 | Premcor Blue Island Refinery, Premcor Refining Group | 13100 S Kedzie Ave, Blue Island | Calumet Saginaw Channel, Mile 316.8 RDB | Y | Y | petroleum products, asphalt, crude oil | 708-385-5000 ext. 205 | 708-385-5000 ext. 223 |
| #249 | LTV Steel Co., LTV Steel Co. | 11600 S Burielgh Ave, Chicago | Calumet River, Mile 329.2 LDB | Y | N | petroleum products | 773-933-4237 | 773-933-4108 |
| #279 | PM Ag Products, Inc., PM Ag Products, Inc. | 13550 S Indiana Ave, Riverdale | Little Calumet River, Mile 322.3 LDB | Y | Y | sunflower oil | 708-849-9220 | 708-849-9220 |
| #380 | James Towing, James Towing | 400 E Sibley Blvd, Harvey | Calumet River | Y | N | petroleum products | | 708-596-7722 |

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| Icon | Facility, Operator | Address | Waterbody | Response Plan | Marine Transfer | Products | Emergency # | Contact # |
|------|--|-------------------------------------|------------------------------------|---------------|-----------------|---|----------------------------|--------------------------------------|
| #384 | Calumet Lubricants Co., Calumet Lubricants Co. | 14000 Mackinaw Ave, Chicago | Grand Calumet River | Y | N | lubricating oils | 219-923-7716 (h) | 708-862-9100 |
| #401 | Ford Motor Co., Ford Motor Co. | 12600 S Torrence Ave, Chicago | Calumet River | Y | N | fuel and hydraulic oil & gasoline | 773-646-7200 | 773-646-7472 |
| #403 | Johnson Products Co., Inc., Carson Products | 8522 S Lafayette Ave, Chicago | None | Y | N | mineral oil | 773-483-4100 ext. 736 | 773-483-4100 ext. 736 |
| #407 | Ingersoll Products Co., Ingersoll Products Co. | 1000 W 120th St, Chicago | MSD Sewers | Y | N | quench oil | 773-264-7800 | 773-264-7800 ext. 172 |
| #413 | Republic Engineered Steels, Inc., Republic Engineered Steels, Inc. | 11610 S Ave O, Chicago | Calumet River, Mile 329 | Y | N | fuel, motor, hydraulic, and lubricating oil | 312-933-4444 | 773-933-4554 |
| #500 | Union Pacific Railroad, Union Pacific Railroad Co. | 147th & Indiana Ave, Dohon | Victory Lake | Y | N | Diesel, kerosene, lube oil, waste oil | 800-893-1293 | 402-271-5767 |
| #520 | Acme Steel Co., Acme Steel Co. | 13500 S Perry Ave, Riverdale | Little Calumet River, Mile 321-322 | N | N | #1 & #2 diesel fuel, hydraulic fluid | 708-849-2500 | 708-841-8383 ext. 2438; 708-849-2500 |
| #521 | Acme Steel Co., Acme Steel Co. | 11236 S Torrence Ave, Chicago | Calumet River, Mile 329 | N | N | coal tar, #2 fuel oil, distillates, bulk oil | 708-849-2500 | 708-841-8383 ext. 2438; 773-933-5000 |
| #526 | Ashland Chemical Co., Ashland Chemical Co. | 142nd St & Paxton Ave, Calumet City | Little Calumet River, Mile 325 | N | N | hexane isomers, benzene solvent, duplicating fluid | 708-891-8230 | 708-891-8230 |
| #538 | Chicago Specialties, Inc., Chicago Specialties, Inc. | 735 E 115th St, Chicago | Lake Calumet | N | N | linseed oil, ortho & para cresol, hydrocol, aniline | 773-660-4000 | 773-660-4017 |
| #542 | Clean Harbors Services, Inc., Clean Harbors Services, Inc. | 11800 S Stony Island Ave, Chicago | Lake Calumet | N | N | #2 fuel oil, waste oil | 312-646-6202; 773-646-6202 | 312-646-6202; 773-646-6202 |
| #548 | CSX Transportation- Barr Yard, CSX Transportation | 135th St & Perry Ave, Riverdale | Little Calumet River, Mile 320 | N | N | #1 & #2 fuel oil, gasoline, used oil, diol 20W-40 | 904-359-7551 | 708-201-5126; 708-201-5174 |
| #550 | Calumet TSS-150 Peakers, Midwest Generation, LLC | 3200 E 106th St, Chicago | Calumet River, Mile 332 | N | N | diesel fuel, mineral oil, turbine oil | 815-942-4500 ext.2289 | 815-942-4500 ext.2202 |
| #593 | Norfolk Southern Railway Co., Norfolk Southern Railway Co. | 2040 E 106th St, Chicago | Calumet River, Mile 330 | N | N | gasoline, kerosene, lub. oil, diesel fuel | 312-933-8090 | 773-933-8014 |
| #605 | Jays Foods Inc., Jays Foods, Inc. | 825 E 99th St, Chicago | Near Lake Calumet, Mile 3.0 | N | N | vegetable oil | 773-731-8400 | 773-731-8400 |

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Title 26, continued

Oil Storage Facilities, continued

| Item | Facility, Operator | Address | Waterbody | Response Plan | Marine Transfer | Products | Emergency # | Contact # |
|------|---|------------------------|--------------------------------|---------------|-----------------|--|--------------|--------------|
| #606 | Safety Kleen Corp., Safety-Kleen Corp. | 633 E 138th St, Dolton | Little Calumet River, Mile 0.2 | N | N | aromatics, pyroiodane, lacquer thinner, rms. sp. | 708-849-4850 | 708-849-4850 |
| #613 | Texas Eastern Products, TE Products Pipeline Co. LP | 3645 W 131st St, Alsip | Calumet Saginaw Channel | N | N | jet-A, kerosene | 812-522-3715 | 708-534-6266 |

Petroleum Pipelines

| Item | Company Name | Route Name | # Lines | Diameters | Products | Emergency # | Contact # |
|-------|-------------------------------------|--|---------|------------------|------------------------|-------------------------------|--------------|
| PL1 | Chicago/Unocal Pipeline Co. | Monsee Station to Blue Island Refinery | 1 | 12-inch | Crude Oil | 800-285-8744 | 708-479-9260 |
| PL12 | West Shore Pipeline Co. | Green Bay to Chicago | 2 | 16-inch, 10-inch | Refined Products | 888-625-7310 | 630-257-3742 |
| PL44 | Amoco Pipeline Co. | Chicago Xylene Line | 1 | 8-inch | Highly Volatile Liquid | 800-588-6482 | 630-836-5315 |
| PL48 | Chicago/Unocal Pipeline Co. | Mokena St to Clark Refinery | 1 | 14-inch | Crude Oil | 800-285-8744 | 708-479-9260 |
| PL98 | Texas Eastern Products Pipeline Co. | TEPPCO - Orland Park to Blue Island | 1 | 14-inch | Refined Products | 800-877-3636; 713-759-4765 | 800-877-3636 |
| PL99 | Texas Eastern Products Pipeline Co. | TEPPCO - Blue Island Bullpoin to Blue Island | 1 | 14-inch | Refined Products | 800-877-3636; 713-759-4765 | 800-877-3636 |
| PL115 | Texas Eastern Products Pipeline Co. | TEPPCO - Blue Island to West Shore | 1 | 14-inch | Refined Products | 800-877-3636; 713-759-4765 | 800-877-3636 |
| PL119 | West Shore Pipeline Co. | East Chicago to Madison | 1 | 12-inch | Refined Products | 888-625-7310 | 847-439-0270 |
| PL128 | Marathon Ashland Pipeline, LLC | Hammond to Lockport 6" | 1 | 6-inch | Refined Products | 800-537-6644 | 419-421-2121 |
| PL129 | Marathon Ashland Pipeline, LLC | Wabash 12" Products | 2 | 12-inch | Refined Products | 800-537-6644 | 419-421-2121 |

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Appendix B. Sensitive Species and Natural Communities

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 5 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 6 | Aquatic/Riparian Zone Vascular Plants | - | X | - | X |
| 7 | Aquatic/Riparian Zone Vascular Plants | - | X | X | - |
| 9 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 11 | Aquatic/Riparian Zone Vascular Plants | X | - | X | - |
| 13 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 14 | Aquatic/Riparian Zone Vascular Plants | X | X | - | X |
| 15 | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| 21 | Upland Zone Vascular Plants | - | X | - | - |
| 23 | Upland Zone Vascular Plants | - | X | X | - |
| 25 | Upland Zone Vascular Plants | X | - | - | - |
| 29 | Upland Zone Vascular Plants | X | X | - | - |
| 37 | Aquatic/Riparian Zone Birds | - | X | - | - |
| 41 | Aquatic/Riparian Zone Birds | X | - | - | - |
| 45 | Aquatic/Riparian Zone Birds | X | X | - | - |
| 53 | Terrestrial Zone Birds | - | X | - | - |
| 57 | Terrestrial Zone Birds | X | - | - | - |
| 69 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| 73 | Aquatic/Riparian Zone Amphibians and Reptiles | X | - | - | - |
| 77 | Aquatic/Riparian Zone Amphibians and Reptiles | X | X | - | - |
| 105 | Aquatic/Riparian Zone Mammals | X | - | - | - |
| 133 | Aquatic/Riparian Zone Invertebrates | - | X | - | - |
| 134 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| 137 | Aquatic/Riparian Zone Invertebrates | X | - | - | - |
| 141 | Aquatic/Riparian Zone Invertebrates | X | X | - | - |
| 150 | Terrestrial Zone Invertebrates | - | X | - | X |
| 165 | Fish | - | X | - | - |
| 169 | Fish | X | - | - | - |
| 173 | Fish | X | X | - | - |
| 177 | Aquatic Natural Communities | - | - | - | - |
| 193 | Terrestrial Zone Natural Communities | - | - | - | - |
| 1006 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | X | X | - | - |
| | Fish | X | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1010 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1011 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1016 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1017 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1024 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1028 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | X | X | - | - |
| 1032 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1035 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---------------------------------------|------------------|------------------|--------------------|--------------------|
| 1037 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Fish | X | X | - | - |
| 1040 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Fish | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1041 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Fish | - | X | - | - |
| 1043 | Upland Zone Vascular Plants | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1045 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1046 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1048 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | X | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1059 | Aquatic/Riparian Zone Birds | X | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1073 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1081 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1085 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1088 | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1089 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1093 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1094 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1097 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | X | - | - | - |
| 1107 | Terrestrial Zone Birds | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1108 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1109 | Aquatic/Riparian Zone Amphibians and Reptiles | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Fish | X | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1115 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1123 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1124 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1127 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Fish | - | X | - | - |
| 1128 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1129 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1137 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1143 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Fish | X | - | - | - |
| 1146 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Fish | X | - | - | - |
| 1166 | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1170 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Fish | - | X | - | - |
| 1171 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1186 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1192 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1196 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1200 | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1217 | Aquatic/Riparian Zone Amphibians and Reptiles | X | - | - | - |
| | Aquatic/Riparian Zone Birds | X | - | - | - |
| 1222 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1225 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1231 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1232 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1234 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |

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Sensitive Species and Natural Communities, continued

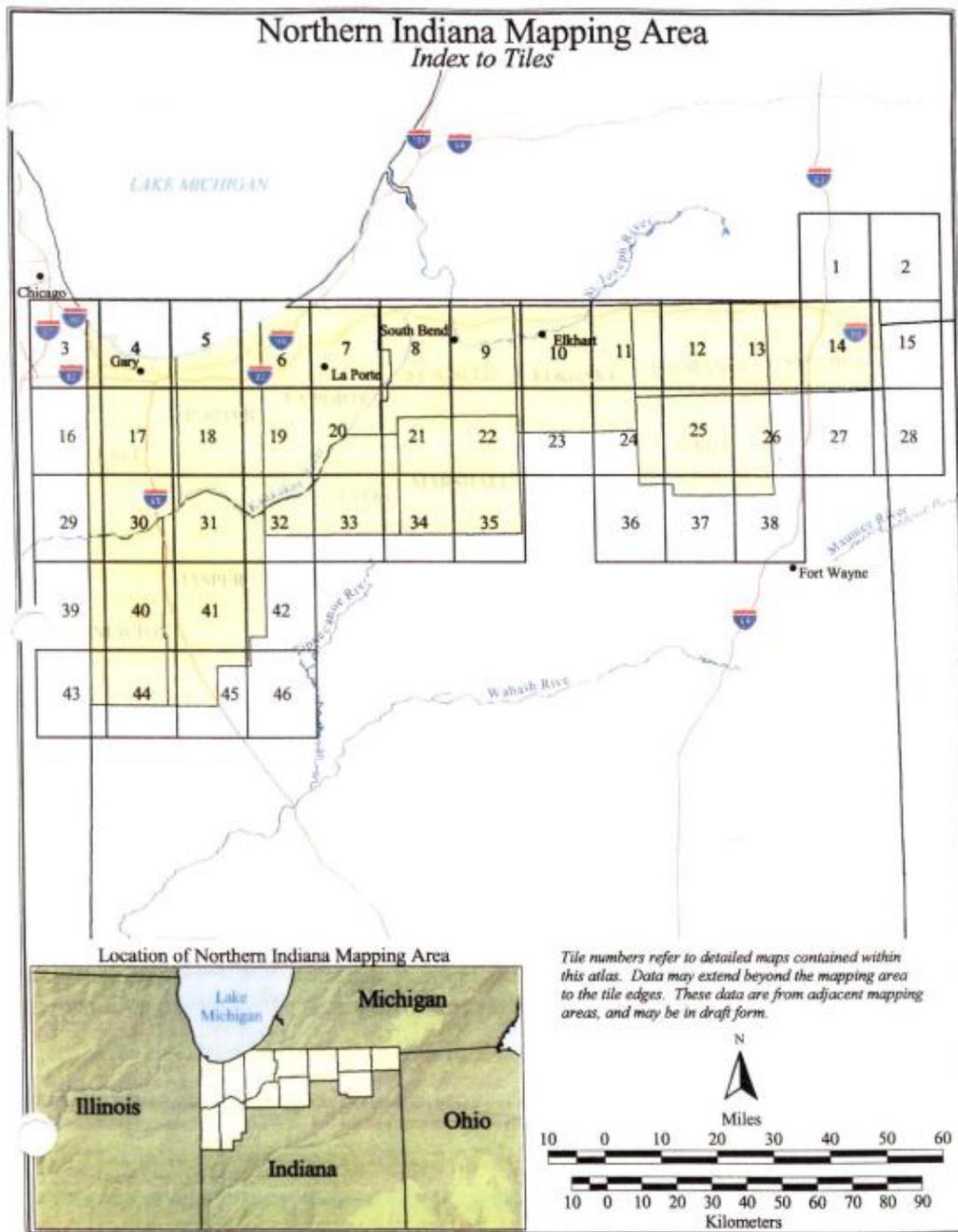
| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1237 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1238 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1239 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Fish | - | X | - | - |
| 1245 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1262 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1271 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | X | - |
| 1272 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1276 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1278 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1283 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1284 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1287 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1289 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1290 | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1295 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1301 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | X | - | - | - |
| | Terrestrial Zone Invertebrates | X | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1305 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1309 | Aquatic/Riparian Zone Vascular Plants | - | X | X | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1311 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1319 | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1326 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1384 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1385 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1393 | Aquatic/Riparian Zone Amphibians and Reptiles | X | - | - | - |
| | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |

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Chicago Sub-area*

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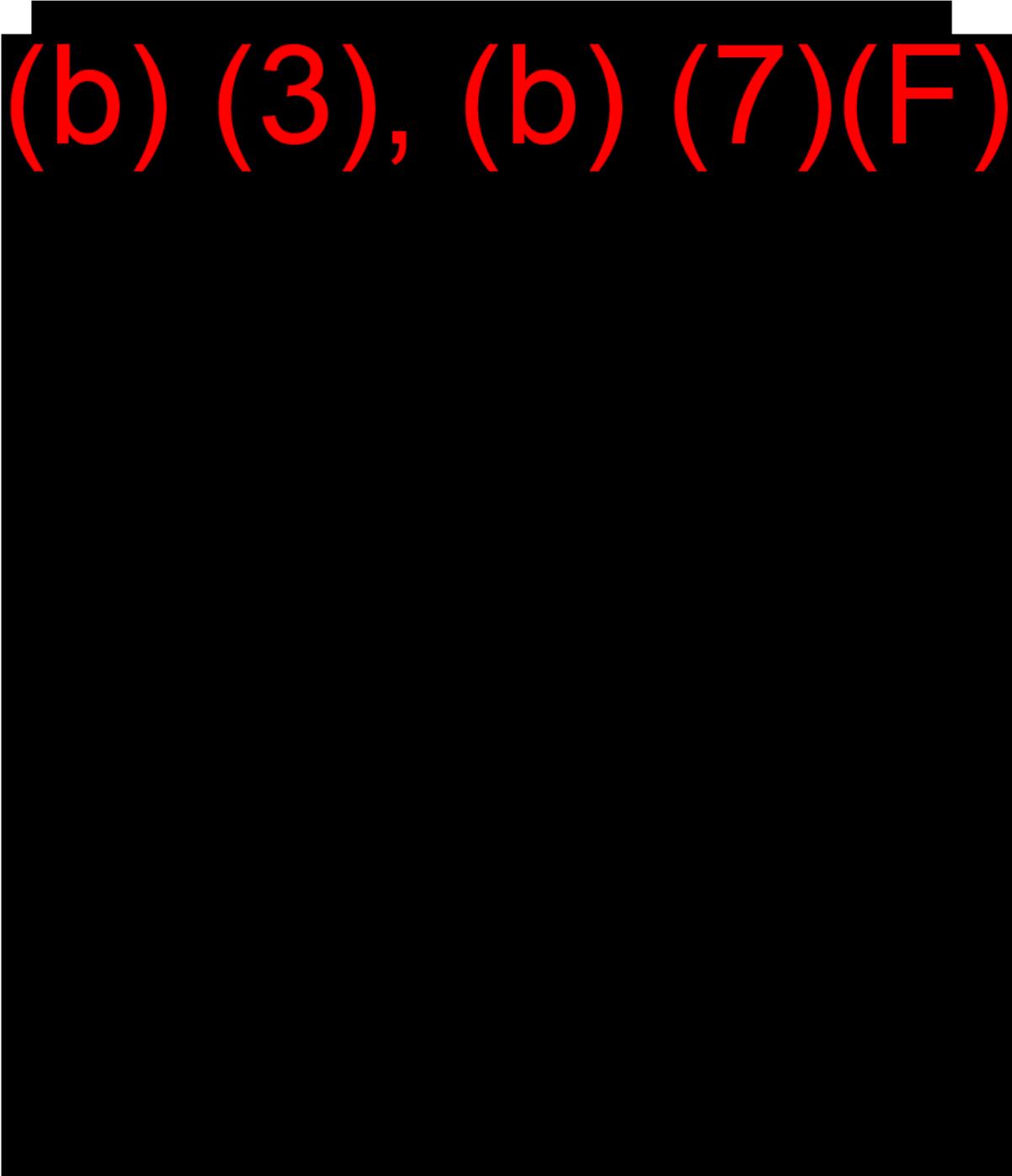
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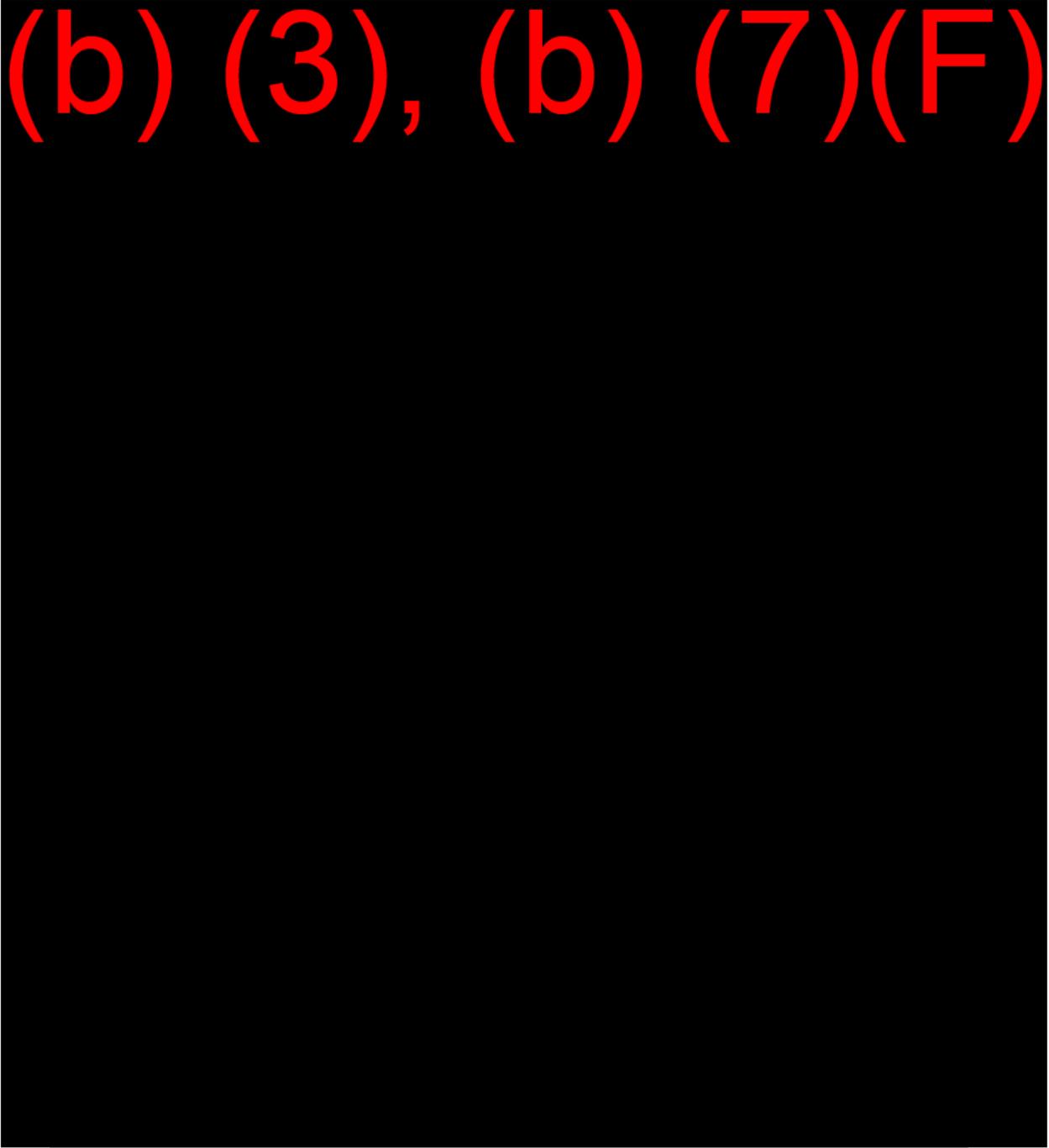
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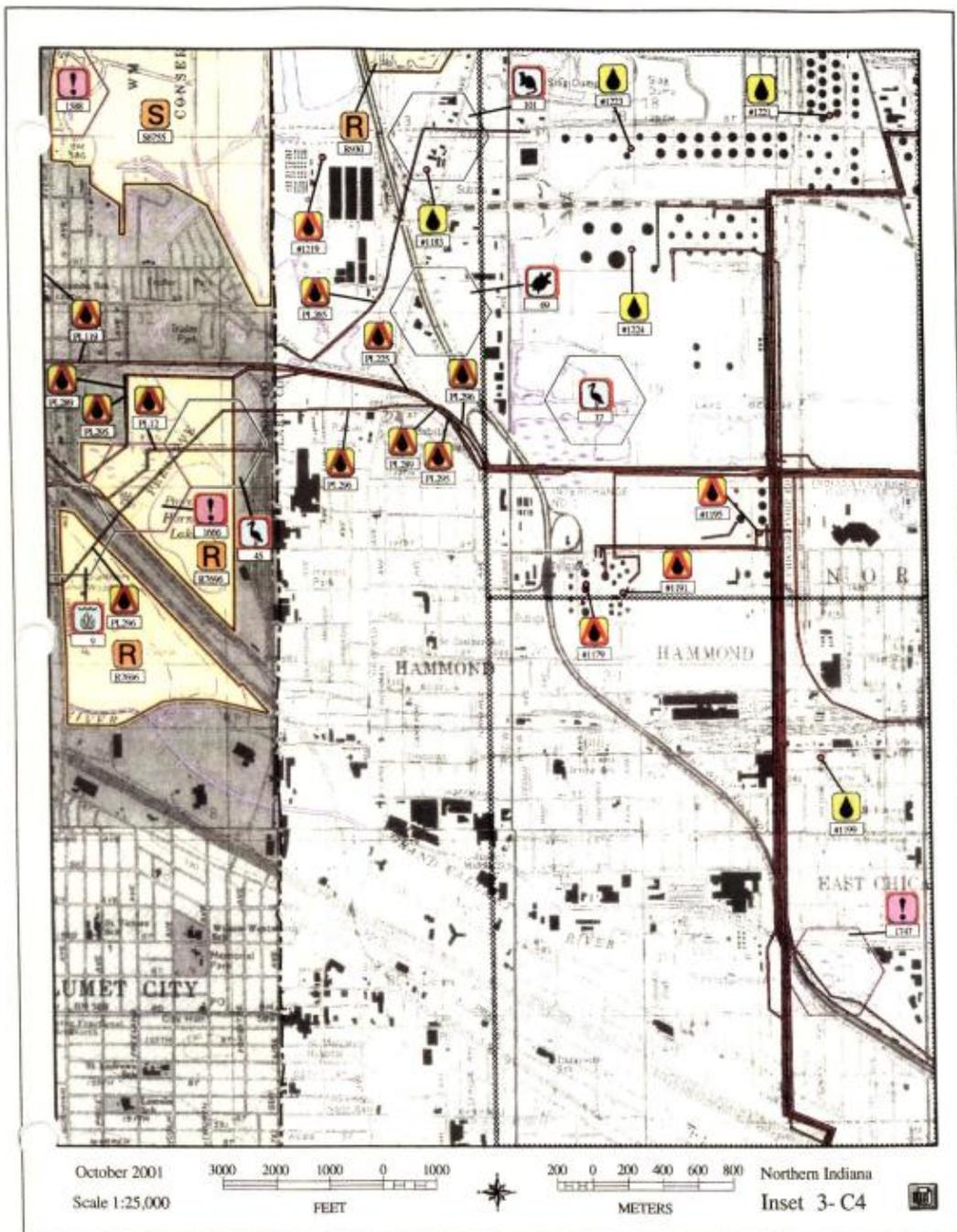


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Northern Indiana Atlas - Tile 3

Sensitive Species*

| Listing | Contact Name | Emergency Phone | Contact Phone |
|-------------------|--|-----------------|---------------|
| Federal (Indiana) | U.S. Fish and Wildlife Service, Bloomington Field Office | 800-800-6923 | 812-334-4261 |
| (Illinois) | U.S. Fish and Wildlife Service, Barringtona Field Office | 800-800-6923 | 847-381-2253 |
| State | Illinois DNR Division of Fish and Wildlife | None | 317-232-4040 |
| | Illinois DNR Division of Natural Heritage | 217-783-7860 | 217-785-8774 |

Managed Areas

| Icon Number | Name | Category | Managing Agency | Waterbody | Emergency Phone | Contact Phone | Comments |
|-------------|---------------------------|-------------------------|-------------------------------------|--|-----------------|---------------|------------------------------|
| R929 | Wicker Memorial Park | City Park | City of Highland | Little Calumet | 219-755-3300 | 219-838-9833 | |
| R930 | Wolf Lake Park | City Park | City of Hammond, Parks Department | Wolf Lake | 318-755-3300 | 219-851-6378 | |
| R954 | Wilaha Beach County Park | County Park | Lake County Parks and Recreation | Lake Michigan | 219-755-3300 | 219-755-3685 | jur. 41.6889, long. -87.6989 |
| R7696 | Calumet Divisions CFP | County Forest Preserve | Cook County FPD | Grand Calumet, Little Calumet Rivers, Wolf Lake, | 708-771-1000 | 708-771-1330 | |
| R7697 | Timley Creek Division CFP | County Forest Preserve | Cook County FPD | Wetlands, streams, many lakes | 708-771-1000 | 708-771-1330 | |
| R7783 | Thorn Creek Division CFP | County Forest Preserve | Cook County FPD | Thorn Creek, Calumet River, wetlands, lakes | 708-771-1000 | 708-771-1330 | |
| S6755 | William W. Powers | State Conservation Area | IL DNR, Division of Land Management | | 317-782-7860 | 773-646-3270 | |

Special Designated Areas

| Icon Number | Designated Area Name | Designation Program or Category | Designating Agency | Waterbody | Emergency Phone | Contact Phone | Comments |
|-------------|--------------------------|---------------------------------|--------------------------------|-----------|------------------|------------------|---|
| S845 | Carthage-Markham Prairie | Nature Preserve | IL Nature Preserves Commission | wetlands | 708-687-6028 (h) | 708-687-6028 (h) | Land owned by Northeastern Illinois University, DNC, and others. Contacts: Ron Peszer, Land Manager & IL Nature Preserves Commission. |
| S6931 | Jurgenson Woods | Nature Preserve | IL Nature Preserves Commission | wetlands | 708-771-1330 | 708-771-1600 | Owled/managed by Cook County FPD. 24-hour emergency in Forest Preserve District Police. |

* 2001 Indiana Natural Heritage Data provided by the Indiana Department of Natural Resources, Division of Fish and Wildlife.
 2001 Illinois Natural Heritage Data provided by the Illinois Department of Natural Resources, Division of Natural Heritage.

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Northern Indiana Atlas - Tile 3 (Continued)

Special Designated Areas (Continued)

| Icon Number | Designated Area Name | Designation Program or Category | Designating Agency | Waterbody | Emergency Phase | Contact Phone | Comments |
|-------------|-----------------------|---------------------------------|--------------------------------|-----------------------|-----------------|----------------------------|--|
| S6950 | Sand Ridge | Nature Preserve | IL Nature Preserves Commission | Green Lake, wetlands | 708-771-1008 | 708-771-1330; 217-785-8686 | Remnant native ecosystems - sand dunes, prairie, savanna. 24-hour emergt in Forest Preserve District Police. Owned/managed by Cook County FPD. |
| S6956 | Thornton-Lanning Road | Nature Preserve | IL Nature Preserves Commission | creek, lake, wetlands | 708-771-1000 | 708-771-1330; 217-785-8686 | Remnant native ecosystems - marsh, woodland. Owned/managed by Cook County FPD. 24-hour emergt in Forest Preserve District Police. |
| S7403 | Dropsed Prairie | Nature Preserve | IL Nature Preserves Commission | none | 217-782-7660 | 217-785-8686 | Recently dedicated Nature Preserve. Site has rare biological/geological resources. |
| S7404 | Paintbrush Prairie | Nature Preserve | IL Nature Preserves Commission | none | 217-782-7660 | 217-785-8686 | Recently dedicated Nature Preserve. Site has rare biological/geological resources. |

Marinas

| Icon Number | Name | Street Address | Waterbody | River Mile | Stops | Fuel Available | Emergency Phase | Contact Phone |
|-------------|---|------------------------------------|----------------------|------------|-------|----------------|------------------|---------------|
| M6287 | Crossant Marina | 14062 S Crossant Dr, Burnham | Little Calumet River | 325.5 LDB | 40 | No | 708-891-0400 | 708-891-0400 |
| M6295 | Pier 11 Marina | 826 E 138th St, Chicago | Little Calumet River | 323.2 LDB | 134 | No | 773-415-1359 | 773-468-8605 |
| M6296 | Rentier's Marine Service | 13515 S Forest Ave, Chicago | Little Calumet River | 322.7 LDB | 5 | No | 708-614-7656 (h) | 773-668-3776 |
| M6299 | Windjammer Marina | 13701 S Hoic Ave, Chicago | Calumet River | 326.2 LDB | 45 | No | none | 773-646-2071 |
| M6338 | Skupper's Marina | 13421 S Vernon Ave, Riverdale | Little Calumet River | 322.8 LDB | 25 | Yes | 312-928-5291 | 773-928-5290 |
| M6339 | Triplets Marina | 13141 St and Halsted St, Riverdale | Little Calumet River | 320.0 LDB | 40 | Yes | 708-849-2200 | 708-849-2200 |
| M6505 | Marine Services Corp. / Dehon Yacht Basin | 140 Cottage Grove Ave, Dolton | Little Calumet River | 324.0 LDB | Yes | No | 847-499-0188 | 708-841-5660 |
| M6506 | Riley's Marina | 14062 Crossant Dr, Burnham | Little Calumet River | 325.2 LDB | 40 | No | none | 708-868-0567 |
| M63015 | Hammond Marina | 701 Congress Drive, Hammond | Lake Michigan | N/A | 982 | Yes | 219-6597678 | 219-659-7678 |
| M63017 | Illiana Yacht Club | 2012 114th Avenue, Whiting | Wolf Lake | N/A | 1 | No | 219-755-3300 | 219-659-9002 |
| M6535 | Riverside Marina & Lounge | 13603 S Calhoun Ave, Chicago | Little Calumet River | N/A | Yes | Yes | none | 773-646-5100 |

Navigation Locks and Dams

| Icon Number | Name | Street Address | Waterbody | River Mile | Emergency Phase | Contact Phone |
|-------------|------------------------|---------------------------------|----------------|------------|-----------------|---------------|
| LDBR | Thomas J. O'Brien Lock | 1340th & Calumet River, Chicago | Illinois River | 326.5 | 312-646-2183 | 312-646-2183 |

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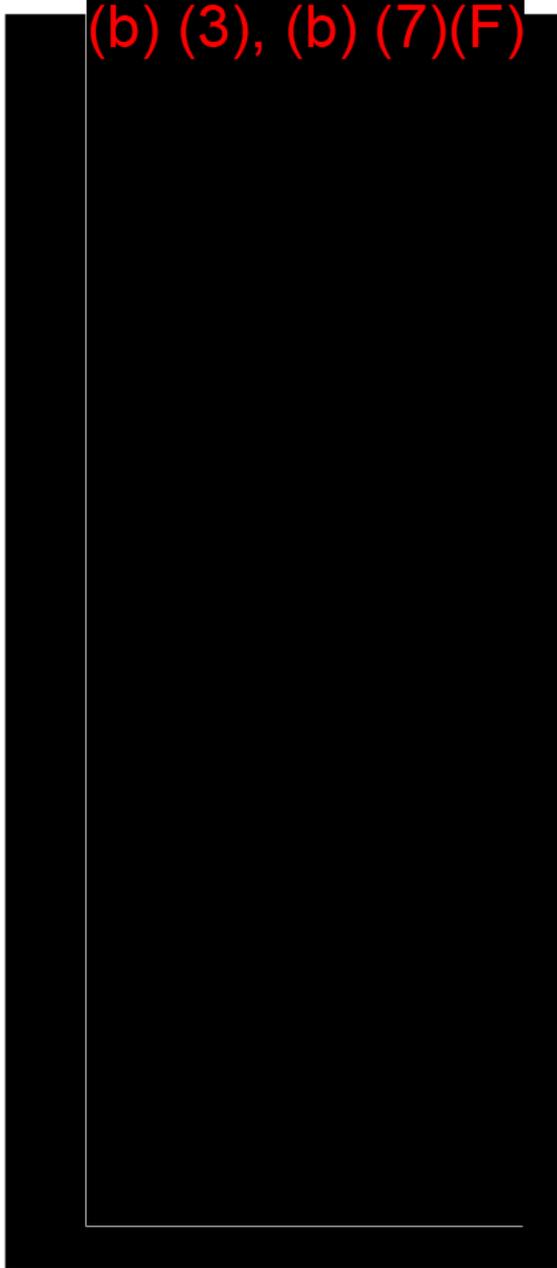


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(b) (3), (b) (7)(F)



| Icon Number | Name | Operator | Street Address | Waterbody | River Mile | Facility Response Plan | Marine Transfer Facility | Products Handled | Emergency Phone | Contact Person |
|-------------|------------------------|-------------------------------|-----------------------------------|---------------|------------|------------------------|--------------------------|--|--------------------------------|----------------------------|
| #243 | Strohaven Chicago Inc. | Stroh-Neilson Terminals, Inc. | 12200 S Stony Island Ave, Chicago | Lake Calumet | 327.9 LDB | Yes | Yes | petrochemicals/animal fats/vegetable oil | 708-438-7554 (h); 312-349-4304 | 773-646-4440; 773-646-8147 |
| #243 | Strohaven Chicago Inc. | Stroh-Neilson Terminals, Inc. | 12200 S Stony Island Ave, Chicago | Lake Calumet | 327.9 LDB | Yes | Yes | petrochemicals/animal fats/vegetable oil | 708-438-7554 (h); 312-349-4304 | 773-646-4440; 773-646-8147 |
| #244 | Cargill, Inc. | Cargill, Inc. | 12200 S Tourette Ave, Chicago | Calumet River | 128.8 RDB | Yes | No | soybean oil | 773-375-7353; 312-343-1686 | 773-375-7255; 219-755-0135 |

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Northern Indiana Atlas - Tile 3 (Continued)

Oil Storage Facilities (Continued)

| Item Number | Facility Name | Operator | Street Address | Waterbody | River Mile | Facility Response Plan | Marine Transfer Facility | Products Handled | Emergency Phone | Contact Phone |
|-------------|----------------------------------|----------------------------------|-------------------------------------|-------------------------|------------|------------------------|--------------------------|--|-----------------------|--------------------------------------|
| #247 | S.T. Services | Support Terminal Services, Inc. | 3210 W 131st St, Blue Island | Calamet Saginaw Channel | 316.5 RDB | Yes | No | petroleum products, natural gas, oil | 708-388-5881 | 708-388-5801 |
| #248 | Premcor Blue Island Refinery | Premcor Refining Group | 13100 S Kedzie Ave, Blue Island | Calamet Saginaw | 316.8 RDB | Yes | Yes | Petroleum products, asphalt, crude oil | 708-385-5000 ext. 205 | 708-385-5000 ext. 223 |
| #248 | Premcor Blue Island Refinery | Premcor Refining Group | 13100 S Kedzie Ave, Blue Island | Calamet Saginaw | 316.8 RDB | Yes | Yes | Petroleum products, asphalt, crude oil | 708-385-5000 ext. 205 | 708-385-5000 ext. 223 |
| #248 | Premcor Blue Island Refinery | Premcor Refining Group | 13100 S Kedzie Ave, Blue Island | Calamet Saginaw | 316.8 RDB | Yes | Yes | Petroleum products, asphalt, crude oil | 708-385-5000 ext. 205 | 708-385-5000 ext. 223 |
| #249 | LTV Steel Co. | LTV Steel Co. | 11660 S Baileigh Ave, Chicago | Calamet River | 329.2 LDB | Yes | No | petroleum products | 773-933-4337 | 773-933-4108 |
| #279 | PM Ag Products, Inc. | PM Ag Products, Inc. | 13550 S Indiana Ave, Riverdale | Little Calumet River | 322.3 LDB | Yes | Yes | sunflower oil | 708-849-9220 | 708-849-9220 |
| #380 | James Towing | James Towing | 400 E Sibley Blvd, Harvey | Calamet River | | Yes | No | petroleum products | 708-596-7722 | 708-596-7722 |
| #384 | Calumet Lubricants Co. | Calumet Lubricants Co. | 14000 Mackinaw Ave, Chicago | Grand Calumet River | | Yes | No | lubricating oils | 219-923-7716 | 708-862-9100 |
| #401 | Ford Motor Co. | Ford Motor Co. | 12600 S Torrence Ave, Chicago | Calamet River | | Yes | No | fuel and hydraulic oil & gasoline | 773-646-7200 | 773-646-7472 |
| #403 | Jehason Products Co., Inc. | Carson Products | 8522 S Lafayette Ave, Chicago | None | | Yes | No | mineral oil | 773-483-4100 ext. 359 | 773-483-4100 ext. 706 |
| #407 | Ingersoll Products Co. | Ingersoll Products Co. | 1000 W 120th St, Chicago | MSD Sewers | | Yes | No | quench oil | 773-266-7800 | 773-266-7800 |
| #413 | Republic Engineered Steels, Inc. | Republic Engineered Steels, Inc. | 11610 S Ave O, Chicago | Calamet River | 329 | Yes | No | fuel, motor, hydraulic, and lubricating oil | 312-933-4444 | 773-933-4554 |
| #500 | Union Pacific Railroad Co. | Union Pacific Railroad Co. | 147th & Indiana Ave, Dolton | Victory Lake | | Yes | No | diesel/kerosene/tube oil/waste oil | 890-892-1293 | 402-271-5767 |
| #520 | Acme Steel Co. | Acme Steel Co. | 13500 S Perry Ave, Riverdale | Little Calumet River | 321-322 | No | No | #1 & #2 diesel fuel, hydraulic fluid | 708-849-2500 | 708-841-8383 ext. 2438; 708-849-2500 |
| #521 | Acme Steel Co. | Acme Steel Co. | 11236 S Torrence Ave, Chicago | Calamet River | 329 | No | No | soal tar, #2 fuel oil, distillates, lusk oil | 708-849-2500 | 708-841-8383 ext. 2438; 773-933-5000 |
| #526 | Ashland Chemical Co. | Ashland Chemical Co. | 142nd St & Paxton Ave, Calumet City | Little Calumet River | 325 | No | No | brass isomers, heptane solvent, displacing fluid | 708-891-8230 | 708-891-8230 |

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Northern Indiana Atlas - Tile 3 (Continued)

Oil Storage Facilities (Continued)

| Icon Number | Name | Operator | Street Address | Waterbody | River Mile | Facility Response Plan | Marine Transfer Facility | Products Handled | Emergency Phone | Contact Phone |
|-------------|--|---|--------------------------------------|-------------------------|------------|------------------------|--------------------------|---|-------------------------------|-------------------------------|
| #538 | Chicago Specialties, Inc. | Chicago Specialties, Inc. | 735 E. 115th St, Chicago | Lake Calumet | | No | No | linseed oil, oriso & peracrossol, hydrosol, aniline | 773-660-4000 | 773-660-4017 |
| #542 | Clean Harbors Services, Inc. | Clean Harbors Services, Inc. | 11800 S Stony Island Ave, Chicago | Lake Calumet | NA | No | No | #2 fuel oil, waste oil | 312-646-6202; 773-646-6202 | 312-646-6202; 773-646-6202 |
| #548 | CSX Transportation-Barr Yard | CSX Transportation | 135th St & Perry Ave, Riverdale | Little Calumet River | 320 | No | No | #1 & #2 fuel oil, gasoline, used oil, diol 20W-40 | 994-359-7551 | 708-201-5126; 708-201-5174 |
| #550 | Calumet TSS-150 Peablers | Midwest Generation, LLC | 3200 E 106th St, Chicago | Calumet River | 332 | No | No | direct fuel, mineral oil, turbine oil | 815-942-4500 ext.2289 | 815-942-4500 ext.2202 |
| #593 | Norfolk Southern Railway Co. | Norfolk Southern Railway Co. | 2040 E 106th St, Chicago | Calumet River | 330 | No | No | gasoline, kerosene, lhb, oil, diesel fuel | 312-933-8090 | 773-933-8014 |
| #665 | Jays Foods Inc. | Jays Foods, Inc. | 825 E 99th St, Chicago | Near Lake Calumet | 3.0 | No | No | vegetable oil | 773-731-8400 | 773-731-8400 |
| #666 | Safety Kleen Corp. | Safety Kleen Corp. | 633 E 131th St, Dolton | Little Calumet River | 0.2 | No | No | aromatics, pyrolytic, laquer thinner, mineral sp. | 708-849-4850 | 708-849-4850 |
| #613 | Texas Eastern Products | TE Products Pipeline Co., LP | 3645 W 131st St, Alton | Calumet Saginaw Channel | | No | No | jet-a-kerosene | 812-522-3715 | 708-534-6266 |
| #1172 | Ceresar USA, Inc | Ceresar USA, Inc. | 1100 Indianapolis Boulevard, Hammond | WOLF Lake/Lake Michigan | N/A | No | No | Mineral, vegetable, lubricating, No.6 fuel oil | 219-659-2000 | 219-658-2000 |
| #1173 | Whiting Refinery, Amoco Petroleum Products | Amoco Petroleum Products, Refining Business Group | 2815 Indianapolis Boulevard, Whiting | Lake Michigan | N/A | Yes | Yes | LP distillate, slop wax, diesel fuel, gas oil. | 219-473-7700 | 219-473-3356 |
| #1179 | Clark Oil & Refining | Clark Oil & Refining | 1020 141st Street, Hammond | Lake George Canal | N/A | Yes | No | Gasoline, kerosene, fuel oil | 219-755-3300 | 219-933-3390 |
| #1183 | Ferro | Ferro | 3000 Sheffield Avenue, Hammond | Wolf Lake | N/A | No | No | Com, soybeans, distilled tall, neutral & lard oil. | 219-931-2630 | 219-931-2630 |
| #1191 | Marathon Ashland Petroleum LLC | Marathon Ashland Petroleum LLC | 4206 Columbia Avenue, Hammond | Lake George | N/A | Yes | No | No.1 Kerosene, No.2 high & low sulfur fuel oil. | 877-627-5521 | 219-932-1024 |

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Northern Indiana Atlas - Tile 3 (Continued)

Oil Storage Facilities (Continued)

| Item Number | Facility Name | Operator | Street Address | Waterbody | River Mile | Facility Response Plan | Marine Transfer Facility | Products Handled | Emergency Phone | Contact Phone |
|-------------|--|---|--|---------------------------------------|------------|------------------------|--------------------------|---|-----------------|---------------|
| #1195 | Mobil Oil - Hammond Terminal | Mobil Oil Corporation | 1527 141st Street, Hammond | Lake George/Indiana Harbor Ship Canal | N/A | Yes | No | Gasoline, No.1 low sulfur diesel, ethanol. | 219-933-6654 | 219-933-6050 |
| #1199 | Peoples, Inc. | George Collins | 1312 W. Chicago Avenue, Hammond | Indiana Harbor Canal | N/A | No | No | N/A | 219-755-3300 | 219-932-0293 |
| #1218 | Witham Sales & Service, Inc. | Jim Witham | 6435 Howard Avenue, Hammond | Little Calumet River | N/A | No | No | Gasoline, petroleum, distillates. | 219-932-0352 | 219-932-0352 |
| #1219 | Wolf Lake Terminals, Inc. | Wolf Lake Terminals, Inc. | 2800 Sheffield Avenue, Hammond | Wolf Lake | N/A | Yes | No | White oils, lube oils, base oils, used oils. | 219-755-7980 | 219-937-4300 |
| #1221 | Indiana Tank Field, Whiting Refinery, | Amoco Petroleum Products, Refining Business Group | SR 912 at SR 20 (Indianapolis Blvd), Whiting | Grand Calumet River | N/A | Yes | No | LP distillates, slop wax, diesel fuel, gas oil. | 219-473-7700 | 219-473-3356 |
| #1223 | Lake George Tank Field, Whiting Refinery, Amoco | Amoco Petroleum Products, Refining Business Group | 129th Street at Calumet Ave., Whiting | Wolf Lake | N/A | Yes | No | LP distillates, slop wax, diesel fuel, gas oil. | 219-473-7700 | 219-473-3356 |
| #1224 | J & L Tank Field, Whiting Refinery, Amoco Petrol | Amoco Petroleum Products, Refining Business Group | SR 912 at Calumet Ave., Whiting | Indiana Harbor Canal | N/A | Yes | No | LP distillates, slop wax, diesel fuel, gas oil. | 219-473-7700 | 219-473-3356 |

Pipelines

| Item Number | Company Name | Route Name | Number of Pipes in Route | Diameters | Products Carried in Line | Emergency Phone | Contact Phone |
|-------------|-------------------------------------|---|--------------------------|-----------|--------------------------|-----------------|---------------|
| PL1 | Chicago/Unocal Pipeline Co. | Monroe Station to Blue Island Refinery | 1 | 12" | Crude | 800-285-8744 | 708-479-9260 |
| PL12 | West Shore Pipe Line Company | Green Bay to Chicago | 2 | 10" | Refined | 888-635-7310 | 630-257-3742 |
| PL48 | Chicago/Unocal Pipeline Co. | Mohena St to Clark Refinery | 1 | 14" | Crude | 800-285-8744 | 708-479-9260 |
| PL58 | Texas Eastern Products Pipeline Co. | TEPPCO - Orland Park to Blue Island | 1 | 14" | Refined | 800-877-3636 | 800-877-3636 |
| PL59 | Texas Eastern Products Pipeline Co. | TEPPCO - Blue Island Bullpen to Blue Island | 1 | 14" | Refined | 800-877-3636 | 800-877-3636 |
| PL115 | Texas Eastern Products Pipeline Co. | TEPPCO - Blue Island to West Shore | 1 | 14" | Refined | 800-877-3636 | 800-877-3636 |

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Northern Indiana Atlas - Tile 3 (Continued)

Pipelines (Continued)

| Icon Number | Company Name | Route Name | Number of Pipes in Route | Diameters | Products Carried in Line | Emergency Phone | Contact Phone |
|-------------|------------------------------|--|--------------------------|--------------|--------------------------|-------------------------------|--------------------------------------|
| PL119 | West Shore Pipe Line Company | East Chicago to Madison, 12" | 1 | 12" | Refined | 888-625-7310 | 847-439-0270 |
| PL173 | BP Pipeline North America | Freeport, MO to Manhattan, IL | 1 | 20" | Crude | 800-548-6482 | 918-600-4363; 918-607-4363 (cell) |
| PL225 | West Shore Pipe Line Company | Hammond Station to Bell | 1 | 16" | Refined | 888-625-7310 | 630-257-3742 |
| PL226 | West Shore Pipe Line Company | Hammond Station to Phillips | 1 | 16" | Refined | 888-625-7310 | 630-257-3742 |
| PL227 | West Shore Pipe Line Company | Hammond Station to Clegg | 1 | 16" | Refined | 800-806-3449 | 630-257-3742 |
| PL228 | West Shore Pipe Line Company | Hammond Station to Shell | 1 | 16" | Refined | 888-625-7310 | 630-257-3742 |
| PL229 | West Shore Pipe Line Company | Hammond Station to Amoco | 1 | 16" | Refined | 888-625-7310 | 630-257-3742 |
| PL230 | West Shore Pipe Line Company | Hammond Station to MT | 1 | 16" | Refined | 888-625-7310 | 630-257-3742 |
| PL231 | West Shore Pipe Line Company | Hammond Station to Mobil Tank Farm | 1 | 16" | Refined | 888-625-7310 | 630-257-3742 |
| PL237 | Buckeye Pipe Line Company | 010 | 1 | 10" | Refined | 800-331-4115 | 800-523-9420 |
| PL242 | Explorer Pipeline Company | Hammond Station - East Chicago Meter | 3 | 14" | Refined | 888-876-0036; 918-493-5100 | 918-493-5143; 219-989-8250 |
| PL246 | Explorer Pipeline Company | E. Chicago Junction to Clark Facility 14 | 1 | 14" | Refined | 888-876-0036; 918-493-5100 | 918-493-5143; 219-989-8250 |
| PL250 | West Shore Pipe Line Company | Amoco Refinery to East Chicago | 1 | 17" | Refined | 888-625-7310 | 773-625-7310 |
| PL251 | West Shore Pipe Line Company | East Chicago to Crawl Junction | 1 | 12" | Refined | 888-625-7310 | 773-625-7310 |
| PL256 | Wolverine Pipe Line Company | Clark Marathon Feeder Line | 2 | 16" | Refined | 888-337-5004; 219-844-9510 | 616-323-2891 ext. 24 |
| PL257 | Wolverine Pipe Line Company | Kennedy to White Oak 16" | 2 | 16" | Refined | 888-337-5004; 219-844-9510 | 616-323-2891 ext. 24 |
| PL262 | TransMontaigne Pipeline Inc. | Lake George Line | 2 | 8" | Refined | 800-732-8140 | 800-732-8140 ext. 5 |
| PL263 | TransMontaigne Pipeline Inc. | Lake George Line | 2 | 8" | Refined | 800-732-8140 | 800-732-8140 ext. 5 |
| PL265 | BP Pipeline North America | Whiting - Decatur Xylene Line | 1 | 8" | Refined | 800-548-6482 | 216-586-2103 |
| PL266 | BP Pipeline North America | White Oak | 1 | 8", 10", 12" | Refined | 800-548-6482 | 216-586-2103 |
| PL267 | BP Pipeline North America | Whiting-Doboque | 1 | 8", 10", 12" | Refined | 800-548-6482 | 216-586-2103 |
| PL268 | BP Pipeline North America | Chicago Crude 16" | 1 | 16" | Crude | 800-548-6482 | 216-586-2103 |
| PL269 | BP Pipeline North America | Chicago Crude 18" | 1 | 18" | Crude | 800-548-6482 | 216-586-2103 |
| PL271 | BP Pipeline North America | Whiting - Indianapolis | 1 | 8" | Refined | 800-548-6482 | 216-586-2103 |
| PL277 | BP Pipeline North America | Chicago 22" CCPS Crude Line | 1 | 22" | Crude | 800-548-6482 | 216-586-2103 |

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Northern Indiana Atlas - Tile 3 (Continued)

Pipelines (Continued)

| Line Number | Company Name | Route Name | Number of Pipes in Route | Diameters | Products Carried in Line | Emergency Phone | Contact Phone |
|-------------|--------------------------------|-----------------------------------|--------------------------|-----------|--------------------------|-----------------|---------------|
| PL281 | Marathon Ashland Pipe Line LLC | Hammond - INMI State Line | 1 | 6" | Refined | 800-537-6644 | 419-421-3587 |
| PL287 | Marathon Ashland Pipe Line LLC | Phillips Jet - Badger Jet #2-12in | 1 | 12" | Refined | 800-537-6644 | 419-421-3587 |
| PL288 | Marathon Ashland Pipe Line LLC | Badger Jet - Mobil Jet #2-12in | 2 | 12" | Refined | 800-537-6644 | 419-421-3587 |
| PL289 | Marathon Ashland Pipe Line LLC | Mobil Jet - Hammond #2-12in | 2 | 12" | Refined | 800-537-6644 | 419-421-3587 |
| PL293 | Marathon Ashland Pipe Line LLC | Phillips Jet - Badger Jet #1-12in | 1 | 12" | Refined | 800-537-6644 | 419-421-3587 |
| PL294 | Marathon Ashland Pipe Line LLC | Badger Jet - Mobil Jet #1-12in | 2 | 12" | Refined | 800-537-6644 | 419-421-3587 |
| PL295 | Marathon Ashland Pipe Line LLC | Mobil Jet - Hammond #1-12in | 2 | 12" | Refined | 800-537-6644 | 419-421-3587 |
| PL296 | Marathon Ashland Pipe Line LLC | Hammond - Lockport | 1 | 6" | Refined | 800-537-6644 | 419-421-3587 |

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(b) (3), (b) (7)(F)

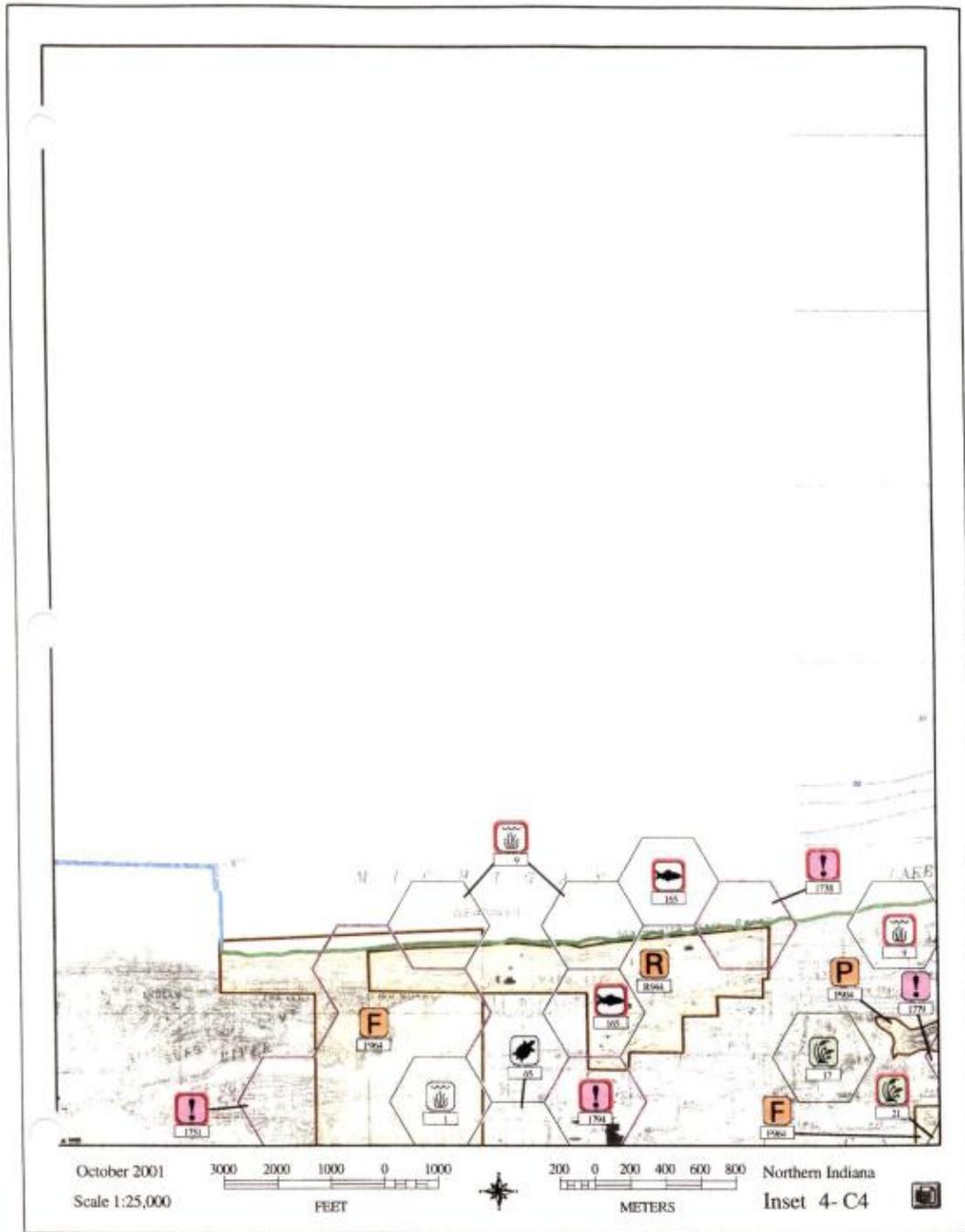


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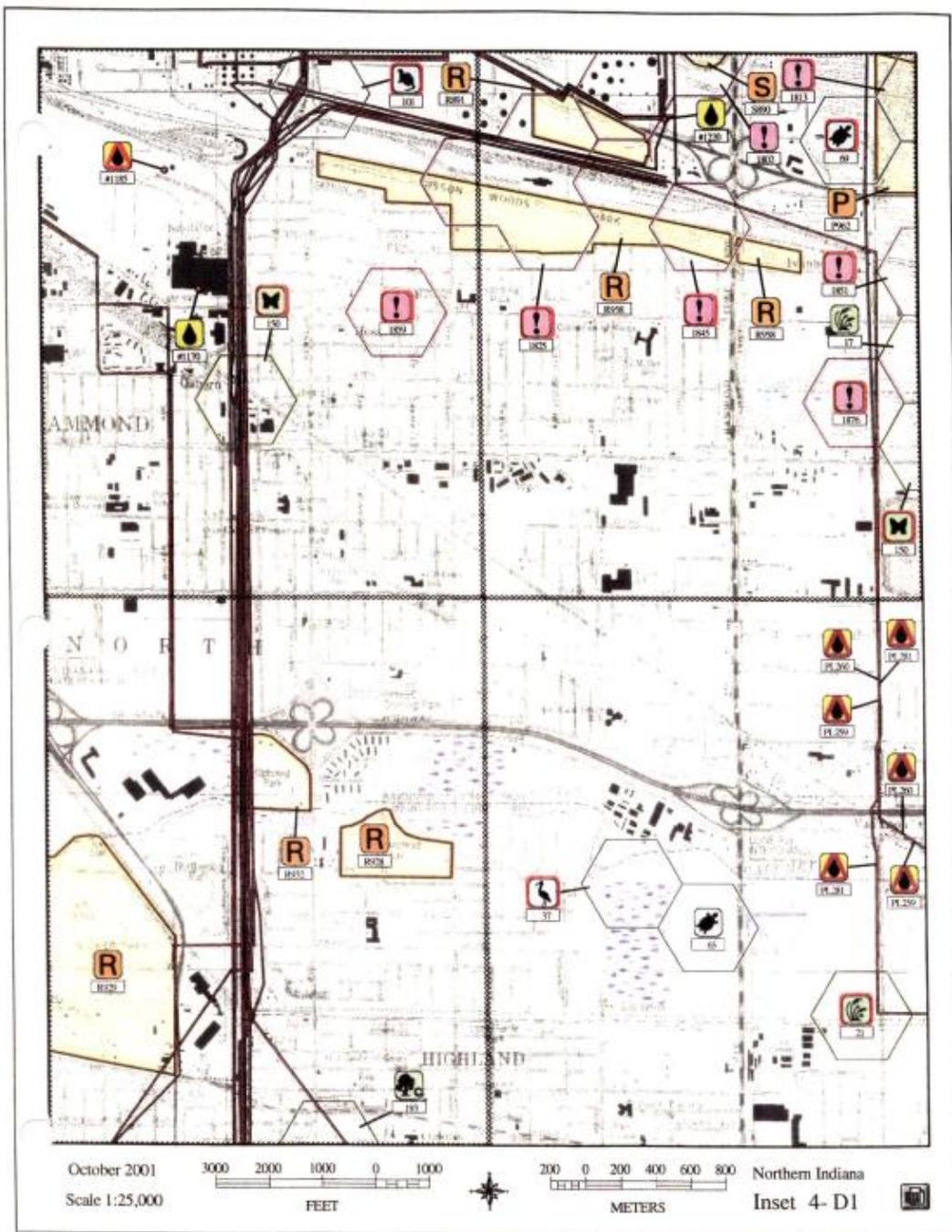
(b) (3), (b) (7)(F)



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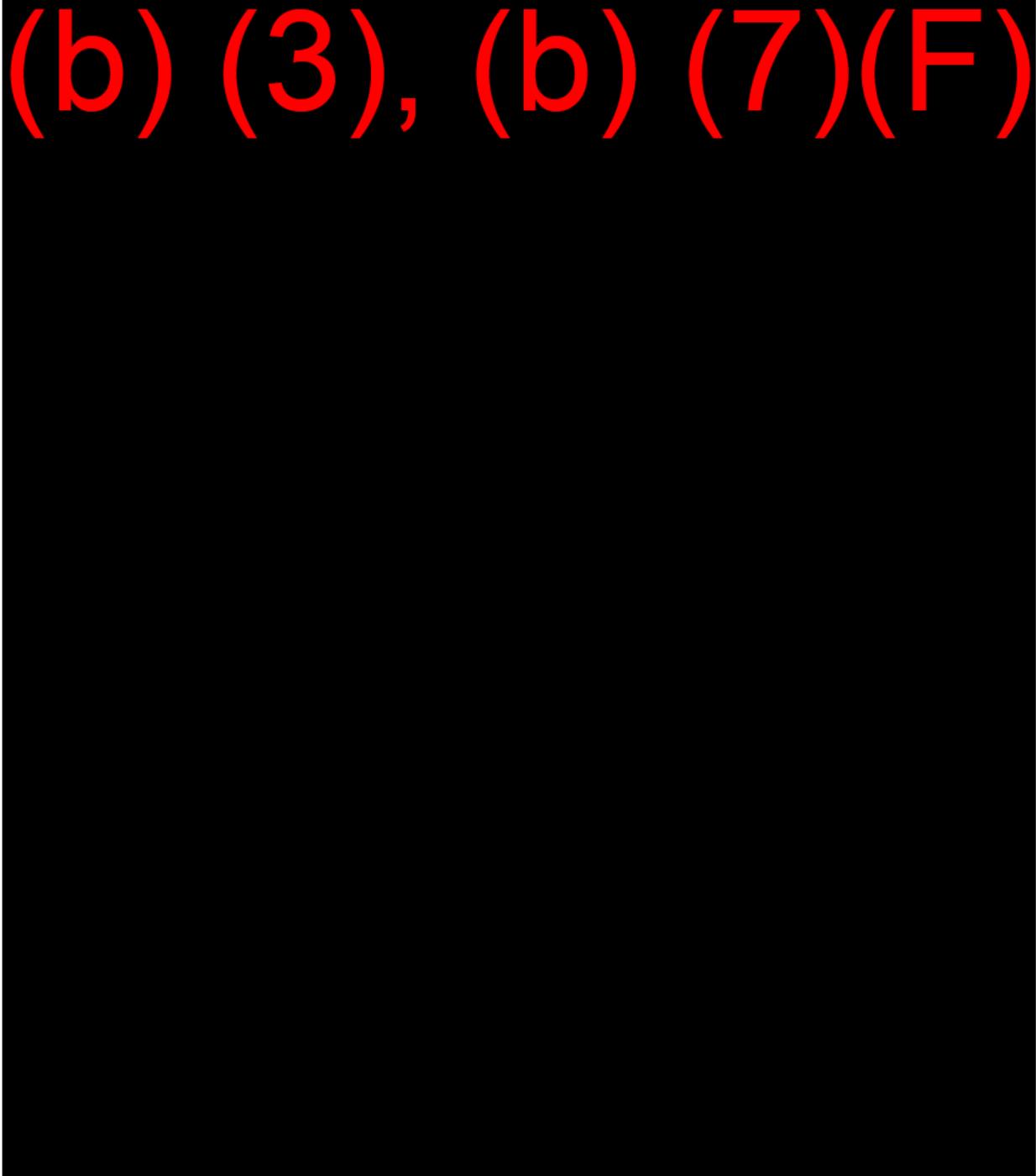


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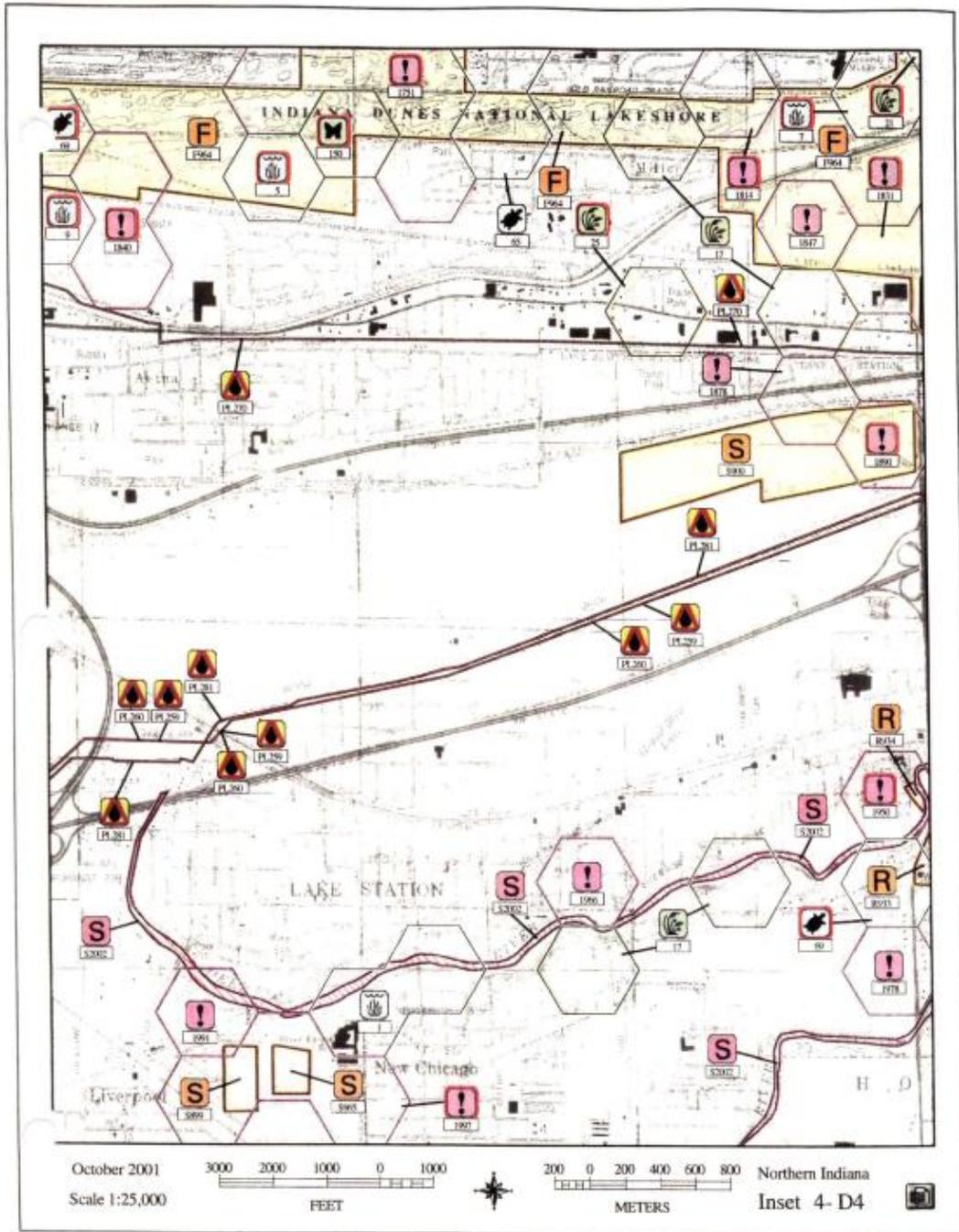


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(b) (3), (b) (7)(F)



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Sensitive Species*

| Listing | Contact Name | Emergency Phone | Contact Phone |
|-------------------|--|-----------------|---------------|
| Federal (Indiana) | U.S. Fish and Wildlife Service, Restoration Field Office | 800-800-5923 | 812-334-9261 |
| State | Indiana DNR Division of Fish and Wildlife | None | 317-232-6680 |

Managed Areas

| Item Number | Name | Category | Managing Agency | Waterbody | Emergency Phone | Contact Phone | Comments |
|-------------|---|-----------------------|---|----------------------|-----------------|-----------------------|---|
| 8904 | Indiana Dunes National Lakeshore | National Park | National Park Service | Lake Michigan | 219-755-3300 | 219-926-7561 ext. 335 | 10605 acres, lat: 41.6164, long: -87.0758 |
| 8903 | Shirley Heinz Foundation - Cullbert Tract | Nature Preserve | Shirley Heinz Foundation | Unnamed Pond | 219-755-3300 | 219-879-4725 | 10 acres, lat: 41.5542, long: -87.3097 |
| 8904 | Lakewood Dune Forest | Nature Preserve | The Nature Conservancy | Lake Michigan | 219-755-3300 | 317-923-7547 | 7.5 acres, lat: 41.6156, long: -87.2386 |
| 8902 | Ivanhoe Dunes and Swale Natural Area | Nature Preserve | The Nature Conservancy | Grand Calumet River | 219-755-3300 | 317-923-7547 | 11.5 acres, lat: 41.6061, long: -87.4194 |
| 8891 | Tollerton Ridge Nature Preserve | Nature Preserve | Lake County Parks and Recreation | Grand Calumet River | 219-755-3300 | 219-755-3685 | 38.89 acres, lat: 41.6050, long: -87.4428 |
| 8928 | Homestead Park | City Park | City of Highland | Little Calumet | 219-755-3300 | 219-838-9833 | |
| 8929 | Wicker Memorial Park | City Park | City of Highland | Little Calumet | 219-755-3300 | 219-838-9833 | |
| 8931 | Glenon Park | City Park | City of Gary Park Board | Little Calumet River | 219-886-3621 | 219-886-7102 | |
| 8932 | Optimist Park | City Park | City of Hammond, Parks Department | Little Calumet | 219-755-3300 | 219-853-6378 | |
| 8933 | Riverside Park | City Park | City of Lake Station Parks Department | Deep River | 219-755-3300 | 219-962-7508 | |
| 8934 | Blenheim Park | City Park | City of Lake Station Parks Department | Deep River | 219-755-3300 | 219-962-7508 | |
| 8943 | Lake Elta County Park | County Park | Lake County Parks and Recreation | Little Calumet River | 219-755-3300 | 219-755-3685 | 80 acres, lat: 41.5619, long: -87.3983 |
| 8944 | Marquette Park | City Park | Gary Indiana Park Board | Lake Michigan | 219-755-3300 | 219-938-7362 | lat: 41.6189, long: -87.2636 |
| 8958 | Gilboa Woods Nature Preserve | Nature Preserve | Lake County Parks and Recreation | Grand Calumet River | 219-755-3300 | 219-844-3188 | 120 acres, lat: 41.6006, long: -87.4639 |
| 8990 | Clint Avenue Dune and Swale Nature Preserve | State Nature Preserve | Indiana DNR, Division of Nature Preserves | Grand Calumet River | 219-755-3300 | 317-232-4052 | 7 acres, lat: 41.6681, long: -87.4353 |
| 8999 | Liverpool Nature Preserve | Nature Preserve | Indiana DNR, Division of Nature Preserves | Deep Run | 219-755-3300 | 317-232-4052 | 18.42 acres, lat: 41.5569, long: -87.2667 |

* 2001 Indiana Natural Heritage Data provided by the Indiana Department of Natural Resources, Division of Fish and Wildlife.

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Managed Areas (Continued)

| Icon Number | Name | Category | Managing Agency | Waterbody | Emergency Phone | Contact Phone | Comments |
|-------------|-------------------------------|-----------------------|---|---------------------------|-----------------|---------------|---|
| S900 | Calumet Prairie | State Nature Preserve | Indiana DNR, Division of Nature Preserves | Burns Ditch | 219-755-3300 | 317-232-4052 | 118.70 acres, lat: 41.5903, long: 87.2389. In an emergency also notify National Parks Service at 219-926-7561, ext. 333 |
| S961 | Clark and Pim Nature Preserve | State Nature Preserve | Indiana DNR, Division of Nature Preserves | Grand Calumet River | 219-755-3300 | 317-232-4052 | 294 acres, lat: 41.6303, long: 87.3906 |
| S965 | Gifford Sand Prairie | State Nature Preserve | Indiana DNR, Division of Nature Preserves | Unnamed Creek, Deep River | 219-755-3300 | 317-232-4052 | NOTE: Exact location not known, contact DNR. |

Special Designated Areas

| Icon Number | Designated Area Name | Designation Program or Category | Designating Agency | Waterbody | Emergency Phone | Contact Phone | Comments |
|-------------|------------------------------------|---------------------------------|---|---|----------------------------|---------------|--|
| S2002 | Deep River State Outstanding River | State Outstanding River | Indiana Department of Natural Resources | Deep River, Little Calumet River, Lake Michigan | 219-466-1515; 219-755-3300 | 877-928-3755 | State designated canoe floating route. |

Marinas

| Icon Number | Name | Street Address | Waterbody | River Mile | Slips | Fuel Available | Emergency Phone | Contact Phone |
|-------------|--------------------------|---------------------------------|----------------------|------------|-------|----------------|-----------------|---------------|
| M3011 | Robert A. Patrick Marina | 3301 Aldis Avenue, East Chicago | Lake Michigan | N/A | 254 | Yes | 219-755-3300 | 219-391-4462 |
| M3012 | Indiana Harbor Boat Club | 3406 Aldis Avenue, East Chicago | Lake Michigan | N/A | 1 | No | 219-755-3300 | 219-398-1224 |
| M3014 | Shoreboat Marina | 400 Chicago Ave, East Chicago | Indiana Harbor Canal | N/A | 1 | No | 219-755-3300 | 219-378-3000 |



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Oil Storage Facilities

| Isen Number | Name | Operator | Street Address | Waterbody | River Mile | Facility Response Plan | Marine Transfer Facility | Products Handled | Emergency Phone | Contact Phone |
|-------------|---------------------------------------|--------------|-----------------------------------|---------------------|------------|------------------------|--------------------------|---|-----------------|---------------|
| #1170 | Sigan Containers Corp., Hammond Plant | Ed Scarfer | 2301 165th Street, Hammond | Grand Calumet River | N/A | No | | Gasoline, kerosene, fuel oil, motor oil | 219-755-3300 | 219-845-1500 |
| #1180 | Combustion Engineering | J. R. Bixman | 435 W. 151st Street, East Chicago | Grand Calumet River | N/A | No | | N/A | 219-755-3300 | |

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Northern Indiana Atlas - Tile 4 (Continued)

Oil Storage Facilities (Continued)

| Icon Number | Name | Operator | Street Address | Waterbody | River Mile | Facility Response Plan | Marine Transfer Facility | Products Handled | Emergency Phone | Contact Phone |
|-------------|---|-----------------------------------|---|---|------------|------------------------|--------------------------|--|-----------------|---------------|
| #1182 | Eggen/Johas/Eastern (RJE) Railway Company | Transier, Inc. | One North Buchanan, Gary | Lake Michigan/Grand Calumet River | N/A | No | No | Diesel fuel, gasoline, lube oil, jet fuel. | 219-883-4214 | 815-740-6900 |
| #1184 | Gary Chicago Airport | Lavell Caterwood | 6001 West Industrial Highway, Gary | Grand Calumet River | N/A | No | No | Jet fuel | 219-949-9722 | 219-949-9722 |
| #1185 | L. H. B. Railroad | I H B Railroad Company | 2721 161st Street, Hammond | Grand Calumet River | N/A | Yes | No | Fuel oil | 219-989-4892 | 219-989-4905 |
| #1186 | Inland Steel/Indiana Harbor Works | Inland Steel Company | 3210 Waring Street, East Chicago | Lake Michigan/Indiana Harbor Ship Canal | N/A | Yes | Yes | No. 6 fuel oil, diesel, hydraulic & lube oils. | 219-399-3226 | 219-399-4194 |
| #1190 | LTV Steel Company | LTV Steel Company | 3001 Dickey Road, Chicago | Lake Michigan | N/A | Yes | Yes | No. 6 fuel oil, diesel, waste, lube, hydraulic oil | 219-391-2434 | 219-391-2571 |
| #1194 | Mobil Oil Corporation | Mobil Oil Corporation | 3821 Indianapolis Boulevard, East Chicago | Lake George Canal | N/A | Yes | Yes | Gasoline, kerosene, fuel oil | 219-755-3300 | 219-397-1950 |
| #1200 | Phillips Pipe Line Company | Phillips Pipe Line Company | 400 East Columbus Drive, East Chicago | Indiana Harbor Canal | N/A | Yes | No | No.2 high & low sulfur distillate, gasoline | 219-397-6666 | 219-397-6666 |
| #1202 | Pollution Control Industries of America | Tin Lagrarias | 4343 Kennedy Avenue, East Chicago | Indiana Harbor Canal | N/A | No | No | N/A | 219-755-3300 | 219-397-5951 |
| #1205 | Republic Engineered Steels | Dave Bantos | 2800 East Dunes Highway, U.S. 12, Gary | Storm Sewers | N/A | No | No | Diesel, hydraulic & lube oils | 219-755-3300 | 219-886-8100 |
| #1206 | Safety-Kleen Oil Recovery Company | Safety-Kleen Oil Recovery Company | 601 Riley Road, East Chicago | Indiana Harbor Ship Canal | N/A | Yes | Yes | Asphaltic bottoms, fuel oil, lube oil. | 800-468-1760 | 219-397-1131 |
| #1207 | Equilon Enterprises LLC | Equilon Enterprises LLC | 2400 Michigan Street, Hammond | Calumet River | N/A | Yes | Yes | Gasoline, diesel, jet fuel, ethanol. | 219-989-8695 | 219-989-8605 |
| #1208 | Solar Environmental, Inc. | Janet Saat | 6988 Chicago Avenue, Gary | Grand Calumet | N/A | No | No | Used crankcase oil. | 815-725-1854 | 219-944-1230 |
| #1211 | Travel Centers of America | Travel Centers of America | 2510 Burr Street, Gary | Calumet River | N/A | No | No | Diesel, gasoline, automobile oil. | 219-793-8921 | 219-845-3721 |
| #1212 | U.S. Reduction Company | Richard Newfield | 4610 Kennedy Avenue, East Chicago | Lake Michigan | N/A | No | No | N/A | 219-755-3300 | 219-392-8002 |

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Northern Indiana Atlas - Tile 4 (Continued)

Oil Storage Facilities (Continued)

| Icon Number | Company Name | Operator | Street Address | Waterbody | River Mile | Facility Response Plan | Marine Transfer Facility | Products Handled | Emergency Phone | Contact Phone |
|-------------|--|---|--|----------------------|------------|------------------------|--------------------------|--|-----------------|---------------|
| #1213 | U.S. Steel Gary Works | USX Corporation | 1 North Broadway, Gary | Lake Michigan | N/A | Yes | Yes | Lubricating oil, fuel oil. | 219-888-4511 | 219-888-3029 |
| #1214 | Praxair | Praxair, Inc. | 4400 Kennedy Avenue, East Chicago | Indiana Harbor Canal | N/A | No | No | Diesel fuel, motor oil, gasoline. | 219-598-3700 | 219-598-3700 |
| #1217 | Wills Oil Company, Inc. | William Garrison | 3830 W. 4th Avenue, Gary | Grand Calumet River | N/A | No | No | Contact indicates NO above ground storage tanks. | 219-949-3545 | 219-949-6611 |
| #1220 | Wolverine Pipeline Company | Dave Davis | 3737 Michigan Avenue, Hammond | Grand Calumet River | N/A | No | No | Refined Oil Products | 219-755-3300 | 219-844-0355 |
| #1222 | South Tank Field, Whiting Refinery, Amoco Petrol | Amoco Petroleum Products, Refining Business Group | SR 912 at SR 20 (Indianapolis Blvd), Whiting | Grand Calumet River | N/A | Yes | No | LP distillate, shop wax, diesel fuel, gas oil. | 219-473-7760 | 219-473-3356 |
| #4170 | CTGO Petroleum Corporation | CTGO Petroleum Corporation | 2500 East Chicago Avenue, East Chicago | Lake Michigan | N/A | Yes | No | Gasoline, turbine fuel, kerosene, butane. | 219-738-7494 | 219-398-0734 |

Pipelines

| Icon Number | Company Name | Route Name | Number of Pipes in Route | Diameter | Products Carried in Line | Emergency Phone | Contact Phone |
|-------------|------------------------------|--|--------------------------|----------|--------------------------|-------------------------------|-------------------------------|
| PL226 | West Shore Pipe Line Company | Hammond Station to Phillips | 1 | 16" | Refined | 888-625-7310 | 630-257-3742 |
| PL227 | West Shore Pipe Line Company | Hammond Station to Cigo | 1 | 16" | Refined | 800-806-2449 | 630-257-3742 |
| PL228 | West Shore Pipe Line Company | Hammond Station to Shell | 1 | 16" | Refined | 888-625-7310 | 630-257-3742 |
| PL237 | Buckeye Pipe Line Company | 010 | 1 | 10" | Refined | 800-331-4115 | 800-523-9420 |
| PL238 | Explorer Pipeline Company | Wood River to Hammond Station | 1 | 24" | Refined | 888-576-0036; 918-493-5100 | 918-493-5143; 219-989-8250 |
| PL239 | Explorer Pipeline Company | Hammond Station - Wolverine Pipeline | 1 | 16" | Refined | 888-576-0036; 918-493-5100 | 918-493-5143; 219-989-8250 |
| PL240 | Explorer Pipeline Company | Hammond Station - Cities Service | 3 | 14" | Refined | 888-576-0036; 918-493-5100 | 918-493-5143; 219-989-8250 |
| PL241 | Explorer Pipeline Company | Hammond Station - Cities Service Spine | 3 | 16" | Refined | 888-576-0036; 918-493-5100 | 918-493-5143; 219-989-8250 |
| PL242 | Explorer Pipeline Company | Hammond Station - East Chicago Meter | 3 | 14" | Refined | 888-576-0036; 918-493-5100 | 918-493-5143; 219-989-8250 |

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Pipelines (Continued)

| Iron Number | Company Name | Route Name | Number of Pipet in Route | Diameters | Products Carried in Line | Emergency Phone | Contact Phone |
|-------------|-------------------------------|--|--------------------------|--------------|--------------------------|-------------------------------|-------------------------------|
| PL243 | Explorer Pipeline Company | Hammond Station - Shell - West Shore South | 1 | 16" | Refined | 888-876-0036; 918-493-5100 | 918-493-5143; 219-989-8250 |
| PL244 | Explorer Pipeline Company | Hammond Station - Shell - West Shore North | 1 | 16" | Refined | 888-876-0036; 918-493-5100 | 918-493-5143; 219-989-8250 |
| PL245 | Explorer Pipeline Company | Hammond Station - Phillips - Phillips | 1 | 16" | Refined | 888-876-0036; 918-493-5100 | 918-493-5143; 219-989-8250 |
| PL251 | West Shore Pipe Line Company | East Chicago to Canal Junction | 1 | 12" | Refined | 888-632-7310 | 773-623-7310 |
| PL253 | Wolverine Pipe Line Company | Lockport to Kennedy Ave 18" | 1 | 18" | Refined | 888-337-5004; 219-844-9510 | 616-323-2491 ext. 24 |
| PL254 | Wolverine Pipe Line Company | Joliet to Kennedy Ave 18" | 1 | 18" | Refined | 888-337-5004; 219-844-9510 | 616-323-2491 ext. 24 |
| PL255 | Wolverine Pipe Line Company | Cigo Feeder 16" | 1 | 16" | Refined | 888-337-5004; 219-844-9510 | 616-323-2491 ext. 24 |
| PL256 | Wolverine Pipe Line Company | Clark Marathon Feeder Line | 2 | 16" | Refined | 888-337-5004; 219-844-9510 | 616-323-2491 ext. 24 |
| PL257 | Wolverine Pipe Line Company | Kennedy to White Oak 16" | 2 | 16" | Refined | 888-337-5004; 219-844-9510 | 616-323-2491 ext. 24 |
| PL258 | Wolverine Pipe Line Company | Shell Feeder 16" | 1 | 16" | Refined | 888-337-5004; 219-844-9510 | 616-323-2491 ext. 24 |
| PL259 | Wolverine Pipe Line Company | Kennedy to Niles Main Line | 1 | 16" | Refined | 888-337-5004; 219-844-9510 | 616-323-2491 ext. 24 |
| PL260 | Wolverine Pipe Line Company | Kennedy to Niles Loop Line | 1 | 16" | Refined | 888-337-5004; 219-844-9510 | 616-323-2491 ext. 24 |
| PL262 | TransMontaigne Pipeline Inc. | Lake George Line | 2 | 8" | Refined | 800-732-8140 | 800-732-8140 ext. 5 |
| PL263 | TransMontaigne Pipeline Inc. | Lake George Line | 2 | 8" | Refined | 800-732-8140 | 800-732-8140 ext. 5 |
| PL267 | BP Pipeline North America | Whiting-Dubuque | 1 | 8", 10", 12" | Refined | 800-548-6482 | 216-586-2103 |
| PL268 | BP Pipeline North America | Chicago Crude 16" | 1 | 16" | Crude | 800-548-6482 | 216-586-2103 |
| PL269 | BP Pipeline North America | Chicago Crude 18" | 1 | 18" | Crude | 800-548-6482 | 216-586-2103 |
| PL270 | BP Pipeline North America | Whiting - River Rouge | 1 | 12" | Crude | 800-548-6482 | 216-586-2103 |
| PL271 | BP Pipeline North America | Whiting - Indianapolis | 1 | 8" | Refined | 800-548-6482 | 216-586-2103 |
| PL275 | Equilon Pipeline Company, LLC | East Chicago Leg | 1 | 14" | Refined | 800-634-4325 | 708-665-6363 |
| PL277 | BP Pipeline North America | Chicago 22" CCPS Crude Line | 1 | 22" | Crude | 800-548-6482 | 216-586-2103 |

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Pipelines (Continued)

| Icon Number | Company Name | Route Name | Number of Pipes in Route | Diameters | Products Carried in Line | Emergency Phone | Contact Phone |
|-------------|--------------------------------|--|--------------------------|-----------|--------------------------|-------------------------------|---------------|
| PL278 | Phillips Pipe Line Company | Kankakee, IL to East Chicago, IN #2, Gold Line | 2 | 8" | Refined | 800-766-8238; 918-461-4550 | 918-661-5532 |
| PL281 | Marathon Ashland Pipe Line LLC | Hammond - IN/MI State Line | 1 | 6" | Refined | 800-537-6644 | 419-421-3387 |
| PL284 | Marathon Ashland Pipe Line LLC | Griffith - Shell Jet, IN 16in | 1 | 16" | Refined | 800-537-6644 | 419-421-3387 |
| PL285 | Marathon Ashland Pipe Line LLC | Shell Jet, IN - Cingo Jet #9-12in | 1 | 12" | Refined | 800-537-6644 | 419-421-3387 |
| PL286 | Marathon Ashland Pipe Line LLC | Cingo Jet - Phillips Jet #2-12in | 1 | 12" | Refined | 800-537-6644 | 419-421-3387 |
| PL287 | Marathon Ashland Pipe Line LLC | Phillips Jet - Badger Jet #2-12in | 1 | 12" | Refined | 800-537-6644 | 419-421-3387 |
| PL290 | Marathon Ashland Pipe Line LLC | Griffith - Shell Jet, IN 12in | 1 | 12" | Refined | 800-537-6644 | 419-421-3387 |
| PL291 | Marathon Ashland Pipe Line LLC | Shell Jet, IN - Cingo Jet #1-12in | 1 | 12" | Refined | 800-537-6644 | 419-421-3387 |
| PL292 | Marathon Ashland Pipe Line LLC | Cingo Jet - Phillips Jet #1-12in | 1 | 12" | Refined | 800-537-6644 | 419-421-3387 |
| PL293 | Marathon Ashland Pipe Line LLC | Phillips Jet - Badger Jet #1-12in | 1 | 12" | Refined | 800-537-6644 | 419-421-3387 |
| PL296 | Marathon Ashland Pipe Line LLC | Hammond - Lockport | 1 | 6" | Refined | 800-537-6644 | 419-421-3387 |

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Appendix B. Sensitive Species and Natural Communities

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 5 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 7 | Aquatic/Riparian Zone Vascular Plants | - | X | X | - |
| 9 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 11 | Aquatic/Riparian Zone Vascular Plants | X | - | X | - |
| 13 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 15 | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| 17 | Upland Zone Vascular Plants | - | - | - | - |
| 21 | Upland Zone Vascular Plants | - | X | - | - |
| 23 | Upland Zone Vascular Plants | - | X | X | - |
| 25 | Upland Zone Vascular Plants | X | - | - | - |
| 29 | Upland Zone Vascular Plants | X | X | - | - |
| 33 | Aquatic/Riparian Zone Birds | - | - | - | - |
| 37 | Aquatic/Riparian Zone Birds | - | X | - | - |
| 39 | Aquatic/Riparian Zone Birds | - | X | X | - |
| 41 | Aquatic/Riparian Zone Birds | X | - | - | - |
| 45 | Aquatic/Riparian Zone Birds | X | X | - | - |
| 49 | Terrestrial Zone Birds | - | - | - | - |
| 53 | Terrestrial Zone Birds | - | X | - | - |
| 65 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| 69 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| 71 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | X | - |
| 77 | Aquatic/Riparian Zone Amphibians and Reptiles | X | X | - | - |
| 81 | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| 85 | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| 89 | Terrestrial Zone Amphibians and Reptiles | X | - | - | - |
| 97 | Aquatic/Riparian Zone Mammals | - | - | - | - |
| 101 | Aquatic/Riparian Zone Mammals | - | X | - | - |
| 102 | Aquatic/Riparian Zone Mammals | - | X | - | X |
| 113 | Terrestrial Zone Mammals | - | - | - | - |
| 117 | Terrestrial Zone Mammals | - | X | - | - |
| 129 | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| 133 | Aquatic/Riparian Zone Invertebrates | - | X | - | - |
| 134 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| 137 | Aquatic/Riparian Zone Invertebrates | X | - | - | - |
| 141 | Aquatic/Riparian Zone Invertebrates | X | X | - | - |
| 142 | Aquatic/Riparian Zone Invertebrates | X | X | - | X |
| 145 | Terrestrial Zone Invertebrates | - | - | - | - |
| 150 | Terrestrial Zone Invertebrates | - | X | - | X |
| 153 | Terrestrial Zone Invertebrates | X | - | - | - |
| 161 | Fish | - | - | - | - |
| 165 | Fish | - | X | - | - |
| 169 | Fish | X | - | - | - |
| 173 | Fish | X | X | - | - |
| 177 | Aquatic Natural Communities | - | - | - | - |
| 193 | Terrestrial Zone Natural Communities | - | - | - | - |
| 1038 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| 1045 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1047 | Aquatic/Riparian Zone Amphibians and Reptiles | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1050 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1051 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1052 | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Terrestrial Zone Birds | X | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1053 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1061 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1064 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1068 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1069 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1075 | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| 1078 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1081 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1082 | Terrestrial Zone Invertebrates | X | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1084 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| 1094 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1098 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1101 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1102 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1103 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | X | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1105 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1109 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1111 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1113 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | X | - | X |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1117 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1118 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1123 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1126 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1127 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1128 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1130 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Fish | - | - | - | - |
| 1131 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1133 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1136 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1137 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1139 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1141 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1147 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1148 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1149 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1150 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1153 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1154 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1162 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1167 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1174 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1178 | Aquatic/Riparian Zone Vascular Plants | - | X | X | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1179 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Fish | - | - | - | - |
| 1185 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1188 | Aquatic Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1189 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1194 | Aquatic/Riparian Zone Mammals | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1199 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Fish | - | - | - | - |
| 1201 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | X | X | - | X |
| 1211 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1212 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1214 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| 1215 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1216 | Aquatic Natural Communities | - | - | - | - |
| | Fish | - | - | - | - |
| 1220 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Fish | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1224 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1225 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1228 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | - | - | - |
| 1234 | Aquatic Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1238 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1239 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| 1248 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Fish | - | X | - | - |
| 1259 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1261 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1271 | Aquatic/Riparian Zone Invertebrates | - | X | - | - |
| | Fish | - | X | - | - |
| 1273 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1275 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1278 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Mammals | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1280 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1281 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1287 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| 1289 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1291 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Fish | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1302 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1303 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Fish | - | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1306 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| 1308 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1310 | Aquatic/Riparian Zone Mammals | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| 1312 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 1314 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1317 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1322 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1329 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | - | - | - |
| 1332 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1334 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1338 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1339 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1360 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1361 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1362 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | X |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| | Terrestrial Zone Invertebrates | X | X | - | - |
| | Terrestrial Zone Mammals | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1363 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Mammals | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1365 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| 1371 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1373 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 1375 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1385 | Aquatic/Riparian Zone Vascular Plants | X | - | X | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1387 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1388 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1391 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1393 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1394 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1401 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1404 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| 1405 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1409 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1423 | Aquatic Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1427 | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | - |
| 1429 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1434 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | X | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1436 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1437 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1441 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1446 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| 1454 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| 1457 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| 1460 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1462 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1465 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Terrestrial Zone Birds | - | X | - | - |
| | Terrestrial Zone Mammals | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1470 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| 1479 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1488 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1494 | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1496 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1498 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Mammals | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1499 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1507 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1508 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | X | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1512 | Terrestrial Zone Birds | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1518 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1519 | Terrestrial Zone Invertebrates | - | X | - | X |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1524 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Terrestrial Zone Birds | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1525 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1527 | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1533 | Aquatic Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1535 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | X |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1537 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1543 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1545 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1546 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | X | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1550 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1557 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1558 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1560 | Aquatic/Riparian Zone Birds | X | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1561 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1562 | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1565 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1568 | Aquatic Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1575 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| | Terrestrial Zone Invertebrates | X | X | - | X |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1578 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1581 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1583 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| 1588 | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1589 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1597 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1598 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1601 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1608 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1610 | Terrestrial Zone Birds | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1614 | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1622 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1625 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1627 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1630 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1633 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1637 | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1646 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1647 | Terrestrial Zone Birds | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1651 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1652 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1653 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1655 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1657 | Terrestrial Zone Birds | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1660 | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1666 | Aquatic Natural Communities | - | - | - | - |
| | Fish | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1667 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1683 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1684 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1689 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1691 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1694 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Fish | - | - | - | - |
| 1696 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1699 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1702 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | X | - | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1703 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1704 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1706 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1707 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1708 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1711 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1712 | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1716 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | X | - |
| | Terrestrial Zone Invertebrates | X | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1717 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1718 | Aquatic/Riparian Zone Vascular Plants | X | - | X | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1719 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1720 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1723 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1738 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1740 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1741 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |

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| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1742 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Fish | - | X | - | - |
| 1747 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| 1749 | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| 1751 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1755 | Upland Zone Vascular Plants | X | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Invertebrates | X | X | - | X |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1756 | Upland Zone Vascular Plants | X | X | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1761 | Terrestrial Zone Birds | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1764 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| 1766 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | - | - | - |
| 1773 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| 1776 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| 1779 | Terrestrial Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1790 | Upland Zone Vascular Plants | - | - | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |

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| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|--------------------------------------|---|------------------|------------------|--------------------|--------------------|
| 1791 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1792 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1794 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1798 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| 1799 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| 1802 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1805 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1806 | Terrestrial Zone Invertebrates | - | X | - | X |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1807 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| 1808 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1809 | Upland Zone Vascular Plants | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| 1811 | Terrestrial Zone Birds | - | X | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1813 | Upland Zone Vascular Plants | X | X | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| Terrestrial Zone Natural Communities | - | - | - | - | |
| 1814 | Upland Zone Vascular Plants | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |

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| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1825 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Invertebrates | X | X | - | X |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1827 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1831 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1832 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1833 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| 1840 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1845 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1847 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1850 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | - | - | - |
| 1851 | Terrestrial Zone Invertebrates | - | X | - | X |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1852 | Aquatic/Riparian Zone Invertebrates | X | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| 1853 | Aquatic/Riparian Zone Invertebrates | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1855 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1856 | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1859 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | - |
| 1864 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1866 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1876 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |

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| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1877 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1878 | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1879 | Aquatic Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1890 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1896 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Fish | - | - | - | - |
| 1898 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Fish | - | - | - | - |
| 1908 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1910 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1911 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Fish | - | - | - | - |
| 1921 | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1927 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1933 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1934 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Fish | - | - | - | - |
| 1935 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1945 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| 1949 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1950 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1954 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Fish | - | - | - | - |
| 1959 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1965 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1966 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1978 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |

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| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1979 | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| 1980 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1984 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |
| 1991 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1994 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1995 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | - | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 1996 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1997 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 2002 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| 2004 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| 2014 | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| 2015 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | - | - | - |
| 2019 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 2036 | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 2037 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2040 | Upland Zone Vascular Plants | - | - | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2054 | Upland Zone Vascular Plants | X | - | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 2058 | Upland Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2062 | Upland Zone Vascular Plants | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Terrestrial Zone Birds | - | - | - | - |

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| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 2084 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Invertebrates | X | X | - | X |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 2085 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2087 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| 2096 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 2097 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 2108 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2109 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| 2110 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 2111 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2115 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 2120 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 2121 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 2123 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Upland Zone Vascular Plants | X | X | - | - |
| 2124 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| 2135 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 2140 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2156 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2161 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2172 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Birds | - | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 2178 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2196 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2197 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2215 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2217 | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 2238 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2250 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | - | - | - |
| 2251 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| 2254 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 2260 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2265 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 2276 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2282 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2286 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 2288 | Aquatic/Riparian Zone Invertebrates | - | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Invertebrates | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | X | - |
| 2295 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 2314 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Fish | - | - | - | - |
| 2317 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2338 | Aquatic Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 2353 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 2355 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2372 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2373 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2376 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 2383 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 2385 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 2389 | Aquatic/Riparian Zone Vascular Plants | - | X | X | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2397 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 2399 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 2400 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2402 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 2407 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2411 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 2420 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 2423 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 2426 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2433 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2439 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Fish | - | - | - | - |
| 2441 | Aquatic Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2445 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | X | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2450 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| 2454 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2456 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Fish | - | - | - | - |
| 2457 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 2464 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Fish | - | - | - | - |

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| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 2485 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| 2496 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 2504 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Fish | - | - | - | - |
| 2509 | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 2513 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 2517 | Terrestrial Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 2518 | Upland Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2519 | Upland Zone Vascular Plants | - | - | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 2531 | Fish | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| 2544 | Aquatic/Riparian Zone Mammals | - | X | - | X |
| | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 2546 | Fish | - | - | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| 2564 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| 2566 | Terrestrial Zone Birds | - | - | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 2573 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2574 | Terrestrial Zone Invertebrates | - | X | - | X |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2575 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2581 | Terrestrial Zone Invertebrates | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2586 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 2587 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 2593 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Terrestrial Zone Birds | - | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 2595 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 2598 | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | X | - |
| 2603 | Aquatic/Riparian Zone Mammals | - | X | - | X |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2605 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| 2622 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| 2626 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2630 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| 2632 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Fish | - | - | - | - |
| 2637 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2643 | Terrestrial Zone Mammals | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2651 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2652 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2666 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2672 | Aquatic Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2678 | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2683 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| | Terrestrial Zone Invertebrates | X | - | - | - |
| | Terrestrial Zone Mammals | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 2698 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 2699 | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 2702 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2705 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 2706 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 2712 | Aquatic/Riparian Zone Invertebrates | X | - | - | - |
| | Fish | X | X | - | - |
| 2726 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2727 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2728 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 2729 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 2736 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 2737 | Terrestrial Zone Mammals | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 2739 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Fish | - | - | - | - |
| 2744 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Mammals | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 2749 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Fish | - | X | - | - |
| 2754 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| 2756 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 2761 | Terrestrial Zone Mammals | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2764 | Terrestrial Zone Invertebrates | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2773 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| 2789 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Fish | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 2791 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 2800 | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 2815 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Fish | - | - | - | - |
| 2824 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Fish | - | X | - | - |
| 2826 | Terrestrial Zone Birds | - | X | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 2832 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2834 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Fish | - | X | - | - |
| 2846 | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |
| 2861 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Fish | - | X | - | - |
| 2864 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2871 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2889 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2890 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | X | X | - | - |
| | Terrestrial Zone Invertebrates | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2953 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2965 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 2966 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2968 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| 2975 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| 2978 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | - | - | - |
| 2982 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2988 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| | Terrestrial Zone Mammals | - | - | - | - |
| 2998 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 3006 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 3009 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 3041 | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 3046 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 3055 | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 3057 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | X | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 3080 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 3081 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 3083 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 3104 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |

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FACILITY RESPONSE PLAN

Premcor Hammond Terminal



Prepared for:

**The Premcor Pipeline Company
One Valero Way
San Antonio, Texas 78249**

Prepared by:

O'Brien's Response Management Inc.
6620 Cypresswood Drive, Suite 200
Spring, TX 77379
Phone: (281) 320-9796 | Fax: (281) 320-9700
www.obriensrm.com

| GENERAL INFORMATION | |
|---|--|
| Owner/Operator of Facility: | The Premcor Pipeline Company |
| Owner/Operator's Address: | One Valero Way San Antonio, Texas 78249 |
| Owner/Operator's Telephone Numbers: | (708) 259-4265 |
| Facility Name: | Premcor Hammond Terminal |
| Facility's Physical Address: | 1020 141st Street Hammond, Indiana 46320 |
| Facility's Phone Number: | (708) 259-4265 |
| (b) (3), (b) (7)(F) | |
| Dun & Bradstreet Number: | 10-691-7730 |
| North American Industry Classification System (NAICS): | 424710 |
| Number of Aboveground Oil Storage Tanks: | 15 (Aboveground Storage Tanks) 0 (Buried Storage Tanks) 0 (Other Sources) |
| Capacity of Largest Aboveground Oil Storage Tank: | (b) (3), (b) (7)(F) |
| Maximum Oil Storage Capacity: | (b) (3), (b) (7)(F) (Aboveground Storage Tanks) 0 (Gal) (Buried Storage Tanks) 0 (Gal) (Other sources) |
| Worst Case Oil Discharge Amount: | (b) (3), (b) (7)(F) |
| Facility Distance to Navigable Water: | <input type="checkbox"/> 0 - 1/4 mile <input type="checkbox"/> 1/2 - 1 mile <input type="checkbox"/> 1/4 - 1/2 mile <input checked="" type="checkbox"/> >1 mile |

| CERTIFICATION OF THE APPLICABILITY OF THE EPA SUBSTANTIAL HARM CRITERIA | |
|---|--|
| FACILITY NAME: | Premcor Hammond Terminal |
| FACILITY ADDRESS: | 1020 141st Street Hammond, Indiana 46320 |
| 1. Does the facility transfer oil over water to or from vessels <u>and</u> does the facility have a total oil storage capacity greater than or equal to 42,000 gallons? | Yes _____ No <input checked="" type="checkbox"/> _____ |
| 2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons <u>and</u> does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area? | Yes _____ No <input checked="" type="checkbox"/> _____ |
| 3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons <u>and</u> is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to 40 CFR Part 112 or a comparable formula ¹) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (59 FR 14713, March 29, 1994) and the applicable Area Contingency Plan. | Yes _____ No <input checked="" type="checkbox"/> _____ |
| 4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons <u>and</u> is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to 40 CFR Part 112 or a comparable formula ¹) such that a discharge from the facility would shut down a public drinking water intake? | Yes _____ No <input checked="" type="checkbox"/> _____ |
| 5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons <u>and</u> has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years? | Yes _____ No <input checked="" type="checkbox"/> _____ |
| 1. If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form. | |
| 2. For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c). | |
| I certify: | |
| <ul style="list-style-type: none"> Under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete. To the United States Coast Guard that the Company has ensured, by contract or other approved means as described in section 154.1028(a), the availability of the necessary private personnel and equipment to respond, to the maximum extent practicable to a worst case discharge or substantial threat of such a discharge from the Facility and that the plan meets the requirements of Subpart F to Part 154. | |
|  | Sr. Area Manager |
| Signature | Title |
| Andy Szabo | 08/09/2010 |
| Name (please type or print) | Date |

NOTE: The information and procedures in this Plan must be treated as guidelines only. The user should determine to what extent it is practical and advisable to follow them. This decision may involve considerations not discussed in this Plan. O'Brien's Response Management Inc. (O'Brien'sRM) provided consulting and plan development services in the preparation of this plan utilizing data provided by the owner/operator and/or the Facility. O'Brien'sRM assumes no liability for injury, loss, or damage of any kind resulting directly or indirectly from the use of the regulatory interpretation, response planning, or information contained in this plan.

OPERATOR'S STATEMENT - SIGNIFICANT AND SUBSTANTIAL HARM AND CERTIFICATION OF RESPONSE RESOURCES

FACILITY NAME: Premcor Hammond Terminal

FACILITY ADDRESS: 1020 141st Street
Hammond, Indiana 46320

1. Is the pipeline greater than 6 and 5/8 inches (168 mm) in outside nominal diameter, greater than 10 miles (16 km) in length? and
 Yes _____ No _____
2. Has any line section experienced a release greater than 1,000 barrels (159 cu. meters) within the previous five years? or
 Yes _____ No _____
3. Has any line section experienced two or more reportable releases, as defined in Sec. 195.50, within the previous five years? or
 Yes _____ No _____
4. Does any line section contain any electric resistance welded pipe, manufactured prior to 1970 and operates at a maximum operating pressure established under Sec. 195.406 that corresponds to a stress level greater than 50 percent of the specified minimum yield strength of the pipe? or
 Yes _____ No _____
5. Is any line located within a 5-mile (8 km) radius of potentially affected public drinking water intakes and could reasonably be expected to reach public drinking water intakes? or
 Yes _____ No _____
6. Is any line located within a 1-mile (8 km) radius of potentially affected environmentally sensitive areas and could reasonably be expected to reach these areas?
 Yes _____ No _____

Based on the following criteria per 49 CFR Part 194, the Facility can be classified as non-significant but, substantial harm.

The Premcor Pipeline Company hereby certifies to the Pipeline and Hazardous Materials Safety Administration of the Department of Transportation that we have identified and ensured, by contract or by other means, the availability of personnel and equipment to respond, to the maximum extent practicable, to a worst case discharge.



Sr. Area Manager

Signature

Title

Andy Szabo

08/09/2010

Name (please type or print)

Date

NOTE: It is the responsibility of the holder of this Plan to ensure that all changes and updates are made. The Plan Holder must:

- Remove and discard obsolete pages.
- Replace obsolete pages with the updated pages.

| REVISION RECORD | | |
|------------------------|--------------------------------|----------------------------------|
| CHANGE DATE | AFFECTED PAGE NUMBER(S) | DESCRIPTION OF CHANGE(S) |
| June, 2011 | | Shared Contact has been updated. |
| August, 2011 | | Shared Contact has been updated. |
| August, 2011 | | Shared Contact has been updated. |
| August, 2011 | | Shared Contact has been updated. |

| DISTRIBUTION LIST | |
|---------------------------|--|
| COPY NUMBER | PLAN HOLDER |
| 1-2 | Casey McConnell Terminal Manager 1020 141st Street Hammond, Indiana 46320 |
| 3, 3a (electronic copies) | Melanie Barber Office of Pipeline Safety East Building, 2nd Floor 1200 New Jersey Ave., SE-E-22-321 Washington, District Of Columbia 20590 |
| 4 | Alex Tzallas, FRP Coordinator, USEPA Oil Planning & Response Section (SE-5J) 77 W. Jackson Blvd. Chicago, Illinois 60604 |
| 5 | Andy Szabo Area Manager 201 E. Hawthorne Street Hartford, Illinois 62048 |
| 6 | Pipelines & Terminals Director One Valero Way San Antonio, Texas 78249 |
| 7 | O'Brien's Response Management Inc. Compliance Services 6620 Cypresswood Drive, Ste. 200 Spring, Texas 77379 |

NOTE: The Distribution of this Plan is controlled by the Copy Number located on the front cover or CD label. The Plan Distribution Procedures provided in Section 1.3 and the Plan Review and Update Procedures provided in Section 1.4 should be followed when making any and all changes.



1.0 INTRODUCTION AND PLAN CONTENT

- 1.1 [Plan Purpose/Objectives](#)
- 1.2 [Format and Scope of Plan](#)
- 1.3 [Plan Distribution Procedures](#)
- 1.4 [Plan Review and Update Procedures](#)
- 1.5 [Regulatory Compliance](#)

Figure 1.1 [Facility Information](#)

1.1 PLAN PURPOSE/OBJECTIVES

The purpose of this Facility Response Plan ("Plan") is to assist the Premcor Hammond Terminal ("Facility") personnel prepare for and respond quickly and safely to an incident at the Facility. The Plan provides techniques and guidelines for achieving an efficient, coordinated and effective response to an incident which may occur at the Facility.

The specific objectives of the Plan are to:

- Establish an Emergency Response Team, assign individuals to fill the positions on the team and define the roles and responsibilities of team members.
- Define notification, activation, and mobilization procedures to be followed when an incident occurs.
- Define organizational lines of responsibility to be adhered to during a response operation.
- Ensure compliance with certain federal, state, and local regulatory requirements. A summary of the applicable regulations addressed by this plan is provided in Section 1.5.
- Ensure consistency with the National Contingency Plan and Area Contingency Plan(s) for the area of operation.

1.2 FORMAT AND SCOPE OF PLAN

This Plan has been developed under the general guidance published in the Federal Register by the EPA entitled "The National Response Team's Integrated Contingency Plan" (61 FR 28642). The NRT guidance was developed in conjunction with the Environmental Protection Agency, Department of Transportation (U.S. Coast Guard, Research and Special Programs Administration, replaced by PHMSA), Department of the Interior (Minerals Management Service, replaced by BOEMRE), and the Department of Labor (Occupational Safety and Health Administration). This guidance also provides for state and local contingency planning requirements to be incorporated into the Plan.

This Plan contains prioritized procedures for Facility personnel to mitigate or prevent any discharge resulting from the operations of the Facility. A description of the operations conducted at the Facility is provided in Figure 1.1 with additional information provided in the "Hazard Evaluation" located in Appendix C.

1.3 PLAN DISTRIBUTION PROCEDURES

Distribution will be handled in the following manner:

- This plan is designed to be electronically based. Access to the Plan will be through an interactive computer interface, which will provide efficient and straightforward guidance for the response team.
- In the event that the electronic plan is inaccessible, bound copies of the plan are available to the response team for their use during an emergency incident.
- Distribution of copies of the Plan is controlled by the number on the front cover. A Distribution List is provided in the Foreword to facilitate control.
- Company personnel who may be called upon to provide assistance during emergency response activities will have access to the Plan for their use and training.
- Certain individuals will be assigned to maintain bound copies of the Plan. It is the responsibility of any person holding a copy of the Plan to ensure that the copy is transferred to their replacement in the event of reassignment or change in responsibility.
- Copies of the Plan will also be distributed to various regulatory agencies. The list of agencies and control numbers is provided in the Distribution List.

1.4 PLAN REVIEW AND UPDATE PROCEDURES

Annual Review/Update

The Facility will coordinate the following Plan review and update procedures.

- Annually review the relevant portions of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and applicable Area Contingency Plan(s) and, if necessary, revise the FRP to ensure consistency.
- At least once each year, review and make appropriate revisions as required by operational or organizational changes.
- At least once each year, review and make appropriate revisions as required by changes in the names and telephone numbers detailed in Section 2.0.
- Opportunities may occur during response team tabletop exercises or actual emergency responses which may initiate Plan review/update.

Federal Agency Review/Revision Requirements

| AGENCY TIMING REQUIREMENTS | EPA | DOT/PHMSA |
|---|--|--|
| Timing for Plan reviews. | Periodically but not to exceed five (5) years. | Periodically but not to exceed five (5) years. |
| Timing for submission of significant Plan revisions as detailed in the table below. | 60 days | 30 days |

EPA Requires any significant changes (see below) that materially may affect the response to a Worst Case Discharge to be submitted within 60 days of the change to the EPA's Regional Office. If the Facility is a significant and substantial harm facility, the Facility will review the Plan at least every five years from the date of Plan approval and resubmit changed portions of the Plan. [40 CFR 112.20(d)(1)]. If the Plan is still current, the Agency will accept a letter which serves as the resubmitted plan for EPA to review for completeness.

DOT/PHMSA The Facility shall revise and resubmit changes to the Pipeline Response Plans Officer within 30 days for new or different operating conditions or information which will substantially affect the implementation of the response plan [49 CFR 194.121]. For a substantial harm facility, the Facility will review the Plan at least every five years of the most recent date of submission and resubmit changed portions of the Plan. For a significant and substantial harm facility, the review will be conducted within 5 years of the date of approval. If the Plan is still current, the Agency will accept a letter which serves as the resubmitted plan for PHMSA to review for completeness.

The Facility shall revise and resubmit revised portions of the Plan for each change that may materially affect the response to a Worst Case Discharge, including:

| CONDITIONS REQUIRING CHANGES | EPA | DOT/ PHMSA |
|---|-----|---------------|
| Material change in the Facility's spill prevention and emergency response procedures. | ✓ | ✓ |
| Change in the Facility's configuration that materially alters the information included in the Plan. | ✓ | ✓ |
| Change in the type of oil handled, stored, or transferred that materially alters the required response resources. | ✓ | ✓ |
| A change in the name of the Oil Spill Removal Organization (OSRO). | ✓ | ✓ |
| Material change in capabilities of the Oil Spill Removal Organization(s) (OSROs) that provide equipment and personnel. | ✓ | ✓ |
| Any other changes that materially affect the implementation of the Plan. | ✓ | ✓ |
| A change in the listings of economically important or environmentally sensitive areas identified in the applicable ACP in effect six (6) months prior to the plan review. | | ✓ |
| Relocation or replacement of portions of the Facility (including the Pipeline) which in any way substantially affect the information included in the Plan, such as a change to the Worst Case Discharge Volume. | | ✓ |
| Emergency response procedures. | | ✓ |
| An extension of the existing pipeline or construction of a new pipeline in a response zone not covered by the previously approved plan. | | ✓ |
| The qualified individual. | | ✓ |
| A change in the NCP or an ACP that has significant impact on the equipment appropriate for response activities. | | ✓ |

1.5 REGULATORY COMPLIANCE

The development, maintenance, and utilization of this Plan implements company policy and addresses the following regulatory requirements and guidelines:

- Federal Oil Pollution Act of 1990: U.S. EPA Final Rule for Non-Transportation Related On-shore Facilities as published in 40 CFR Part 112.20.
- Federal Oil Pollution Act of 1990: U.S. DOT Final Rule for Transportation Related On-shore Facilities as published in 49 CFR 194.
- OSHA's HAZWOPER Regulation as published in 29 CFR 1910.120.
- OSHA's Emergency Action Plan Regulation as published in 29 CFR 1910.38(a), as applicable.

This Plan is consistent with the most recent version of the applicable Area Contingency Plans (ACPs). The applicable ACPs for the Facility are:

- EPA Region 5 Oil and Hazardous Substances Pollution/Area Contingency Plan

This Plan is consistent with the most recent version of the National Contingency Plan (NCP). The NCP for the Facility is:

- U.S. Environmental Protection Agency; National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule.

**FIGURE 1.1
FACILITY INFORMATION**

| GENERAL INFORMATION | | |
|--------------------------------------|--|---|
| Facility Name: | Premcor Hammond Terminal | |
| | Physical Address | Mailing Address |
| | 1020 141st Street Hammond, Indiana 46320 | 1020 141st Street Hammond, Indiana 46320 |
| 24 hr Telephone #: | (708) 259-4265 | |
| Fax #: | (219) 931-2739 | |
| EPA FRP #: | 0500327 | |
| DOT OPS Tracking: | 1462 | |
| NAICS: | 424710 | |
| (b) (3), (b) (7)(F) | | |
| Dunn & Bradstreet Number: | 10-691-7730 | |
| Company: | Owner: Physical Address | Operator: Physical Address |
| | The Premcor Pipeline Company One Valero Way San Antonio, Texas 78249 | Valero Terminating and Distribution One Valero Way San Antonio, Texas 78249 |

| FACILITY LOCATION | | | |
|--|--|----------------|-------------------------------------|
| County: | Lake | | |
| Area Map: | See Appendix G | | |
| Facility Diagram: | See Appendix G | | |
| Wellhead Protection Area: | N/A | | |
| Facility Distance to Navigable Water: | <input type="checkbox"/> | 0 - 1/4 mile | <input type="checkbox"/> |
| | <input type="checkbox"/> | 1/4 - 1/2 mile | <input checked="" type="checkbox"/> |
| | | | 1/2 - 1 mile |
| | | | >1 mile |
| Landside Directions: | O'Hare Airport: Take I-294 (Toll), S toward Indiana. After the 163rd St. Toll booth, SB I-294 merges into EB I-80. Continue E on I-80. After I-80 passes the interchange with I-94, the road becomes I-80/94. Midway Airport: Turn S on Cicero Ave. (the N/S street that passes in front of the airport). Proceed S until Cicero meets I-294 (Toll). Take I-294 S toward Indiana. After the 163rd St. Toll booth, SB I-294 merges into EB I-80. Continue E on I-80. After I-80 passes the interchange with I-94, the road becomes I-80/94. From the West: Take I-80/94 E into Indiana. Take the N. Calumet Ave. exit, proceed N on N. Calumet Ave. to 141st St. Make a R turn, go over the toll road. The first bldg. on the R is the main Terminal Ofc. From the East: Take I-80/94 W toward Chicago. Take the N. Calumet Ave. exit, proceed N on N. Calumet Ave. to 141st St. Make a R turn, go over the toll road. The first bldg. on the R is the main Terminal Ofc. | | |
| Waterside Directions: | N/A | | |

QUALIFIED INDIVIDUAL

Certification:

The Company grants full authority to the designated Qualified and Alternate Qualified Individuals to implement the Facility Response Plan and to:

- Activate and engage in contacting with oil spill removal organizations,
- Act as liaison with the pre-designated Federal On-Scene Coordinator (OSC), and
- Obligate funds required to carry out response activities.

Qualified Individual:

Casey McConnell

Manager Terminal

17082594265 (24 Hr.)

(b) (6)

Alt. Qualified Individual:

Andy Szabo

Sr Mgr Area Terminal

13145752852 (24 Hr.)

(b) (6)

Glenn Hodge

Pipeline Operator III

17089323588 (24 Hr.)

(b) (6)

PHYSICAL DESCRIPTION - GENERAL

Description of Operation:

- The Facility stores gasoline, fuel oils, and gasoline additives. The Facility has a total storage capacity of (b) (3), (b) (7)(F) an average storage volume of (b) (3), (b) (7)(F). Daily throughput is approximately 50,000 Bbls. The Facility has a total of 15 aboveground storage tanks and underground storage tanks. Nine (9) of the 15 aboveground storage tanks are regulated by the EPA while eight (8) are used for breakout storage and therefore, are regulated by the DOT. The capacity of the largest tank is (b) (3), (b) (7)(F). Product is received primarily through pipeline and is shipped primarily into pipelines. Gasoline additives are received by tank truck and are injected at the rack as trucks load. The truck rack consists of two (2) loading stations and one (1) unloading station.
- The Facility's total aboveground oil storage capacity is (b) (3), (b) (7)(F) ons. Daily throughput is approximately 50,000 barrels per day.
- There are a total of 15 aboveground storage tanks. The capacity of the largest tank (7) is (b) (3), (b) (7)(F)
- The Facility operates 24/7
- The Facility's Worst Case Discharge amount: (b) (3), (b) (7)(F)

Date of Initial Storage: 1958

Products Handled:

- Petroleum Products
- Fuel Oil
- Ethanol

Note: A Product Specific Response Consideration sheet is provided at the end of Section 3.0. The Facility also maintains MSDS reference information on the products stored.

PHYSICAL DESCRIPTION - DOT/PHMSA OPERATIONS

General Pipeline Operations:

The Hammond Facility consist of the following breakout tanks: Breakout Tanks 1, 2, 3, 5, 6, 7, 8 & 9. The Alsip Facility consist of the following breakout tanks: Breakout Tanks 44, 56, 804, 806. Informational Summary for Pipeline Response Zone: Since all maintenance / operational functions are conducted by Company personnel located at the Facility, a single Response Zone (U.S. DOT PHMSA response planning requirement under OPA 90) has been developed. The Response Zone includes Cook County, IL and Lake County, IN. Below is the list of lines covered in the single Response Zone.

OneOK

OneOK Clark Kedzie Station to Alsip Distribution Center (6 in)

This Pipeline was constructed in pre 1970

500 ft

Calumet Sag Channel

Alsip Distribution Center to Calument Sag Channel (8 in)

This Pipeline was constructed in pre 1970

517 ft

Robbins

South side of Calument Sag Channel to Harrison Avenue (8 in)

This Pipeline was constructed in pre 1970

5,3 7 ft

Midlothia Creek / Little Calumet River

Harrison Avenue to west side of Ashland Avenue (8 in)

This Pipeline was constructed in pre 1970

8,796 ft

Ashland Avenue

West side of Ashland Avenue to East side of Ashland Avenue (8 in)

This Pipeline was constructed in pre 1970

308 ft

Riverdale / Calumet City

East side of Ashland Avenue to West side of Grand Calumet River (8 in)

This Pipeline was constructed in pre 1970

37, 22 ft

Grand Calumet River

West side of Grand Calumet River to East side of Grand Calumet River (8 in)

This Pipeline was constructed in pre 1970

466 ft

Hammond, IN

East side of Grand Calumet River to Hammond Terminal (8 in)

This Pipeline was constructed in pre 1970

9,699 ft

East Chicago

East side of Hammond Terminal to East Chicago Bull Pen (12 in)

This Pipeline was constructed in pre 1970

6,336 ft

305 Manifold/800 Tank Farm

305 Manifold to 800 Tank Farm (20 in)

This Pipeline was constructed in pre 1970

1,887 ft

PHYSICAL DESCRIPTION - TRUCK AND RAIL TRANSFER**Truck Rack****Description of Operation:**

The Facility is equipped with two (2) loading spots which handle various grades of gasoline and fuel oil. The loading/unloading operations are conducted on a 24 hour/7 day per week basis.

Loading Rate: 550 - 800 gpm (per truck/per loading spot)

Largest Truck Capacity: 9,000 gallons (maximum)

Discharge Prevention:

The sloped and curbed concrete slab drains directly to a below ground spill collection tank.

Methods/Equipment to prevent premature vehicle departure

- Truck Interlock System

Gasoline Additives and Ethanol are unloaded periodically at the Facility across the truck rack.

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS

- **1958:** Added two tanks (Tks 3 & 4).
- **1968:** Added one tank (Tk 5).
- **1970:** Added one tank (Tk 7).
- **1971:** Added one tank (Tk 6).
- **1974:** Added two tanks (Tks 8 & 9) (Tk 10 built in 1953).
- **2004:** Change of owner to the Premcor Pipeline Company, Inc.
- **2005:** Added Tank 11.

OTHER FACILITY DATA

Additional facility data (including storage information) and discharge detection and inspection information is provided in the SPCC. The Certification of the Applicability of the Substantial Harm Criteria and Information contained on the Response Plan Cover required by 40 CFR 112.20 are located in the Foreword Section and Figure 1.1 respectively. Alsip, IL DOT Breakout Tanks associated with DOT Facility Response Plan: (1) Tank ID #44, (b) (3), (b) (7)(F) [REDACTED]; (2) Tank ID #47, Maximum Capacity (Gallons) (b) (3), (b) (7)(F) [REDACTED] (3) Tank ID #56, Maximum Capacity (Gallons) (b) (3), (b) (7)(F) [REDACTED] (4) Tank ID #806, Maximum Capacity (Gallons) (b) (3), (b) (7)(F) [REDACTED]



2.0 NOTIFICATION PROCEDURES

2.1 [Internal Notifications](#)

2.2 [External Notifications](#)

Figure 2.1 [Internal Notification References](#)

Figure 2.2 [Oil Spill Removal Organizations](#)

Figure 2.3 [Notification Data Sheet](#)

Figure 2.4 [External Notification Flowchart](#)

Figure 2.5 [External Notification References](#)

This Section is a guide for notification procedures that should be implemented immediately after discovering an emergency incident. Internal and external notifications are described separately for clarification purposes only. All notifications are of extreme importance and must be completed in a timely manner.

2.1 INTERNAL NOTIFICATIONS

The following internal notifications should be made for each emergency incident to the extent that the incident demands. In no event shall notification be delayed because the immediate supervisor is inaccessible. Authorization is given to bypass management levels if necessary to provide timely notification to appropriate management. The typical notification responsibilities for each person potentially involved in the initial response are listed below.

All emergency incidents will require some notification. The emergency category of the incident will affect the notifications and the initial response to the incident. It is important to properly classify the emergency category to ensure proper notifications and response.

Category 1 or Category 2 Incident - Business units will make appropriate notifications through normal business chains based on the nature and extent of the emergency.

Category 3 or Category 4 Incident -

- Each site will have an individual designated with primary responsibility for making internal notifications following an emergency. This individual should be part of the 24-hour shift organization and have no other emergency roles which would interfere with this assignment.
- Following initial notification of the site's emergency management team, Plant Manager or other key individual, the incident will be reported to the Corporate Executive responsible for the affected business unit (Refining - Regional Vice President, Ethanol Plants - Darrin Baron, Logistics - Paul Brochu, Transportation - Ken Applegate, Retail - Gary Arthur)
- As soon as feasible (typically within 30-minutes), either the site or the responsible corporate executive will notify Central Monitoring at **(800) 964-2210** or **(210) 736-2210**.
- The caller will remain on the line while Central monitoring sends an AlertFind notification to key members of the executive emergency management committee (Operations, HSE, and Corporate Communications) indicating there has been an emergency and inviting them to join a conference call. This process should only take 2-3 minutes.
- The caller will then be connected to the conference call with the emergency management committee in order to provide a briefing of the incident and assist in making decisions regarding additional notifications and/or activation of the corporate emergency operations center.

Central Monitoring

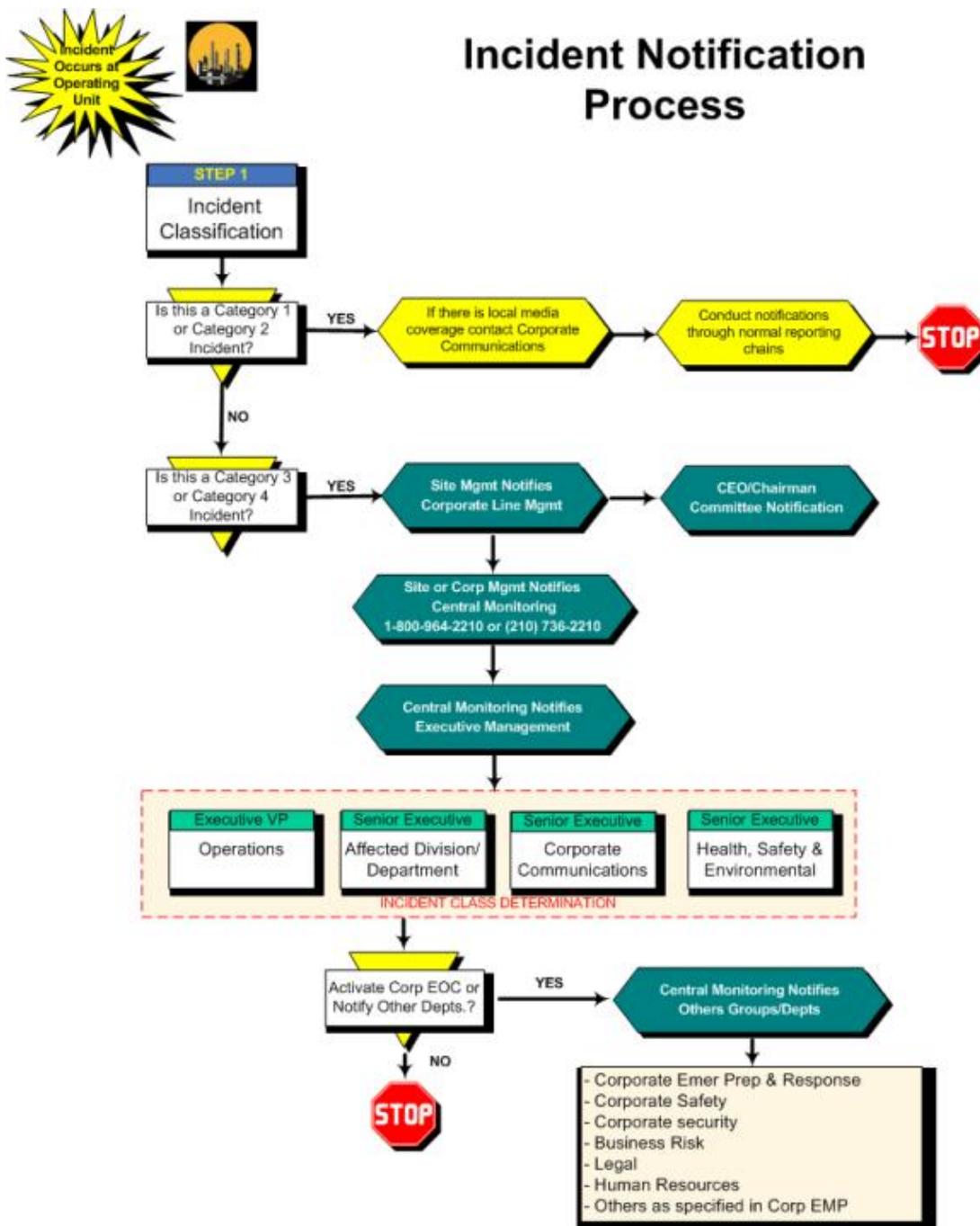
When calling Central Monitoring (CM) to notify Corporate of a Category 3/4 Incident, the caller will need to answer the questions listed below. Once CM has gathered the necessary information, the caller will be joined into a conference call with executive management. Remain on the line while CM places all parties in the conference call, there may be silence before you are joined into the conference call.

Caller needs to be prepared to answer the following and then remain on the line while being placed into the conference call:

- Caller's Name and call back number
- Location of emergency
- Type of Emergency (Category 3/4 Incident or Other)

Emergency/Incident Classification

| Incident Category | CONSIDERATIONS | | | |
|-------------------|---|---|--|----------------------|
| | HEALTH/SAFETY | COMMUNITY IMPACT | ENVIRONMENTAL IMPACT | RELIABILITY IMPACT |
| I | No Onsite Injury to First Aid or No Injury to Public Small Fire - No ERT Response Required | No to Minor Impact to People or No Media Coverage | Minor Spill or Release No Reportable Quantity or No Agency Contact or No Response Needed | \$0 to \$100K |
| II | Onsite Recordable to Lost Time Injury or Nuisance to Public Moderate Fire - ERT Response Required | Community Warning or Local Media Coverage | Moderate Spill or Release Reportable Quantity with Agency Notification or Short Duration Remediation | From \$100K to \$1MM |
| III | Permanent Disabling Injury to Single or Multiple Fatality within the immediate area or Medical Treatment to Public Major Fire or Explosion - Mutual Aid Response Required | Shelter in Place or State to Regional Media Coverage | Major Spill or Release Reportable Quantity with Multi-Agency Involvement or Prolonged Remediation | From \$1MM to \$10MM |
| IV | Multiple Fatalities across the Site or Public Fatality Catastrophic Fire or Explosion | Public Evacuation or National Media Coverage | Catastrophic Spill or Release Agency Intervention or Permanent Environmental Damage | Greater than \$10MM |



Person Discovering the Discharge

- Immediately notify the interim **Control Center** (The Premcor Pipeline Company).
- Notify **Terminal Manager/Maintenance Technician II**.

Terminal Manager/Maintenance Technician II /QI

- Notify local emergency response resources (fire, police, medical, etc.), response contractors, and notify local, state and federal emergency response agencies (Figure 2.5).
- Notify **Senior Area Manager**.

Senior Area Manager

- Notify appropriate **Director Pipelines and Terminals**.

Pipeline Director Pipelines and Terminals

- Notify **Corporate**.

2.2 EXTERNAL NOTIFICATIONS

Depending on the type and level of incident, certain external notification may be necessary. Responsibilities for each person potentially involved in the external notifications are listed below.

Maintenance Technician II (QI)

- National Response Center (NRC);
- Appropriate state agency;
- Local agencies;
- All releases reported to any agency due to special agreement; and
- USCG (as necessary).

The Notification Data Sheet (see Figure 2.3) should be used to begin the external notification process, keeping in mind that there are some strict time limits for making certain calls.

The following are guidelines to be considered when initiating external notifications:

- Receive faxed copy of Notification Data Sheet from Company employee or, at a minimum, gather pertinent incident information from the third party reporting the release.
- Do not report information that has not been verified or confirmed, usually by field personnel.
- Do not speculate as to the cause on an incident or make any statements about liability.
- Do not delay notifications because of incomplete information.
- When making notifications, document:
 - Agency notified, including telephone number
 - Date and time of notification
 - Person notified
 - Content of message
 - Incident number, if applicable

FIGURE 2.1
INTERNAL NOTIFICATION REFERENCES

| INTERNAL NOTIFICATIONS - QUALIFIED INDIVIDUALS | | | | |
|--|------------------|-------------|------------|------------|
| NAME/ POSITION/TITLE | RESPONSE TIME | OFFICE | HOME | OTHER |
| Casey McConnell Manager Terminal | 1 Hour | 12199317410 | (b) | (6) |
| Andy Szabo Sr Mgr Area Terminal | 4-5 Hours | 19019478479 | | |
| Glenn Hodge Pipeline Operator III | 1 Hour | 12199315620 | | |

| INTERNAL NOTIFICATIONS - INCIDENT MANAGEMENT TEAM | | | | |
|---|------------------|-------------|------|-------|
| NAME/ POSITION/TITLE | RESPONSE TIME | OFFICE | HOME | OTHER |
| Andy Szabo Sr Mgr Area Terminal | 4-5 Hours | 19019478479 | (b) | (6) |
| Casey McConnell Manager Terminal | 1 Hour | 12199317410 | | |
| Glenn Hodge Pipeline Operator III | 1 Hour | 12199315620 | | |
| Jay Ross Lead HSE Specialist | 4-5 Hours | 16182555105 | | |

| INTERNAL NOTIFICATIONS - CORPORATE EMERGENCY TEAM STAFF | | | | |
|--|------------------|-------------|----------------|------------|
| NAME/ POSITION/TITLE | RESPONSE TIME | OFFICE | HOME | OTHER |
| David Amosky Director Regional Env & Reg Affairs | >1 Hour | 12103455874 | (b) (6) | (6) |
| Jeremy Bergeron VP Insurance | >1 Hour | 12103452312 | | |
| Bill Day Exec Director Media Relations | >1 Hour | 12103452928 | | |
| Deepak Garg VP Environmental,Regulatory&LogisticsHSE | >1 Hour | 12103452181 | | |
| Theo Guidry SVP Business Risk Management | >1 Hour | 12103452048 | | |
| Eric Honeyman VP Regional Refinery Operations | >1 Hour | 12103453694 | | |
| James Pursell Director Health, Safety & Emergency Prep | >1 Hour | 12103453054 | | |
| Kirk Saffell SVP Health, Safety & Environmental | >1 Hour | 12103452169 | | |

| DEDICATED TELEPHONE PHONE LINES | | |
|---------------------------------|----------------|----------|
| LOCATION | EXTENSION | COMMENTS |
| Main Office | (708) 259-4265 | |

FIGURE 2.2
OIL SPILL REMOVAL ORGANIZATIONS

| USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATIONS (OSRO) | | | |
|---|----------------------|-----------------------|------------------|
| COMPANY | RESPONSE TIME | LOCATION | TELEPHONE |
| National Response Corporation | 1 Hour | Great River, New York | (800) 899-4672 |

| ADDITIONAL RESPONSE RESOURCES | | |
|--|----------------------------|------------------|
| Planning and Incident Support | | |
| COMPANY | LOCATION | TELEPHONE |
| O'Brien's Response Management Inc. | Houston, Texas | (281) 320-9796 |
| Eagle Environmental Services (for vacuum trucks) | Chesterton, Indiana | (219) 763-1111 |
| International Bird Rescue and Research | Cordelia, California | (707) 207-0380 |
| Jarrett Industries | South Roxana, Illinois | (618) 325-8083 |
| Marine Spill Response Corporation (MSRC) | Edison, New Jersey | (800) 259-6772 |
| Onyx Environmental Services (for hazardous materia | East Chicago, Illinois | (219) 391-6705 |
| Onyx Environmental Services (for sludge waste disp | Sauget, Illinois | (618) 271-2804 |
| Premcor Insurance Representative | Old Greenwich, Connecticut | (203) 698-7551 |
| Siebert Engineering, Inc: Pipeline Surveyor | Lombard, Illinois | (630) 268-0020 |
| Waste Management (for lined waste containers) | Chicago, Illinois | (708) 422-2225 |
| Waste Management Laraway (for petroleum contaminat | Elwood, Illinois | (815) 727-6148 |

FIGURE 2.3

| NOTIFICATION DATA SHEET | | |
|---|---|----------------------------|
| Date: _____ | Time: _____ | |
| INCIDENT DESCRIPTION | | |
| Reporter's Full Name: _____ | Position: _____ | |
| Day Phone: _____ | Evening Phone: _____ | |
| Company: Valero Terminating and Distribution | Organization Type: _____ | |
| Facility Address: 1020 141st Street Hammond, Indiana 46320 | Owner's Address: One Valero Way San Antonio, Texas 78249 | |
| Facility Latitude: (b) (3), (b) (7)(F) | _____ | |
| Spill Location (if not at Facility): _____ | | |
| Responsible Party's Name: _____ | Phone Number: _____ | |
| Responsible Party's Address: _____ | | |
| Source and/or cause of discharge: _____ | | |
| Nearest City: Hammond, IN | | |
| County: Lake | State: Indiana | Zip Code: 46320 |
| Section: _____ | Township: _____ | Range: _____ |
| Distance from City: _____ | Direction from City: _____ | |
| Container Type: _____ | Container Storage Capacity: _____ | |
| Facility Oil Storage Capacity: _____ | | |
| Material: _____ | | |
| Total Quantity Released | Water Impact (YES or NO) | Quantity into Water |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| RESPONSE ACTION(S) | | |
| Action(s) taken to Correct, Control, or Mitigate Incident: _____ | | |
| Number of Injuries: _____ | Number of Deaths: _____ | |
| Evacuation(s): _____ | Number Evacuated: _____ | |
| Damage Estimate: _____ | | |
| More information about impacted medium: _____ | | |
| CALLER NOTIFICATIONS | | |
| National Response Center (NRC): | 1-800-424-8802 | |
| Additional Notifications (Circle all applicable): | USCG | EPA State OSHA Other _____ |
| NRC Incident Assigned No.: _____ | | |
| ADDITIONAL INFORMATION | | |
| Any information about the incident not recorded elsewhere in this report: _____ | | |
| _____ | | |
| _____ | | |
| NOTE: DO NOT DELAY NOTIFICATION PENDING COLLECTION OF ALL INFORMATION. | | |

FIGURE 2.4
EXTERNAL NOTIFICATION FLOWCHART

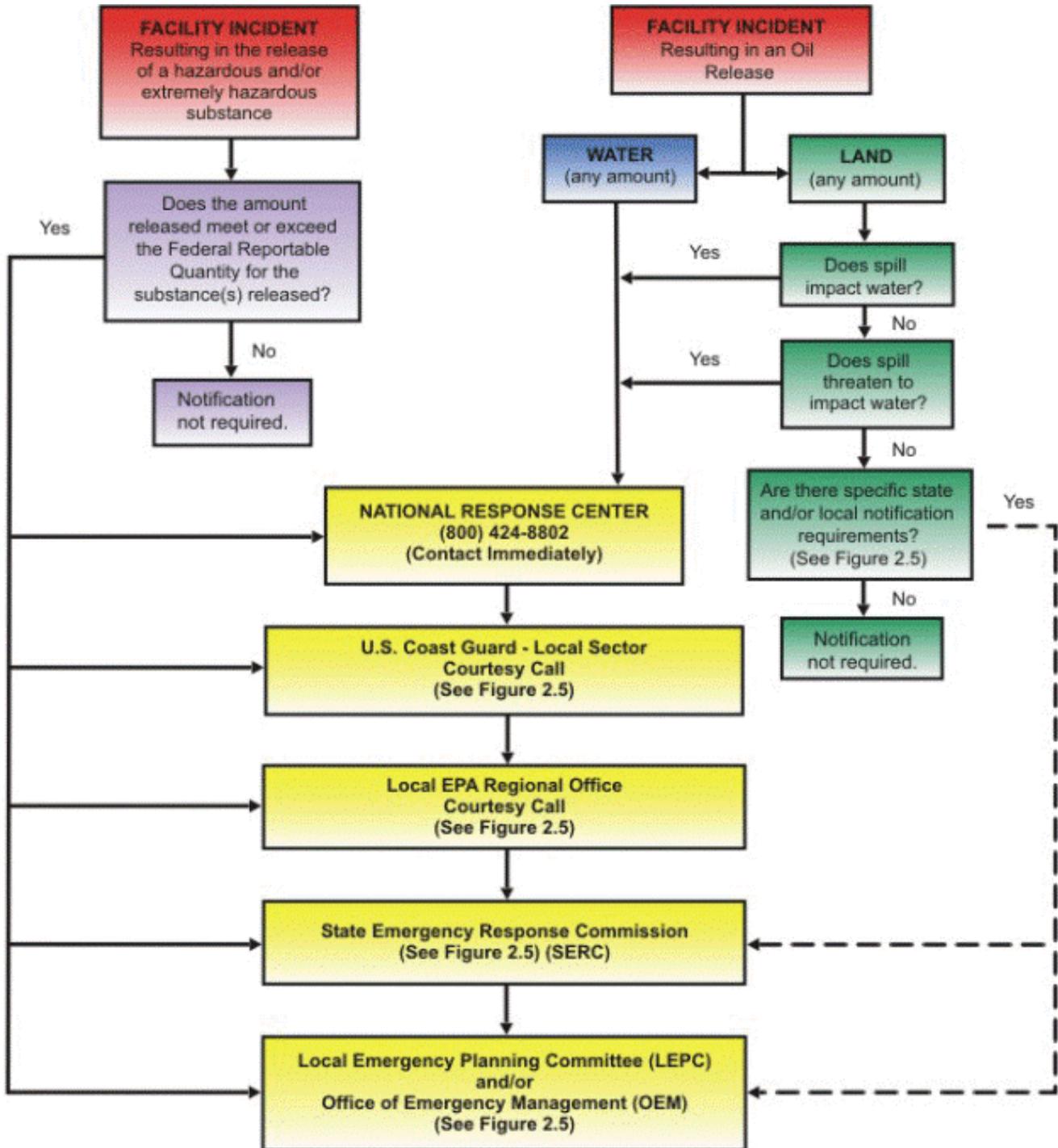


FIGURE 2.5
EXTERNAL NOTIFICATION REFERENCES

| REQUIRED NOTIFICATIONS | |
|--|---|
| National Response Center (NRC) | |
| c/o United States Coast Guard (CG-3RPF-2), 2100 2nd Street Southwest Room 2111-B Washington, District Of Columbia 20593-0001 | (800) 424-8802 (24 Hr.) (202) 267-2675 (Day Phone) |
| REPORTING REQUIREMENTS | |
| TYPE: Any discharge or sighting of oil on navigable waters. | |
| VERBAL: Immediate notification required (within 2 hours). | |
| WRITTEN: Not required. | |
| NOTE: A call to the NRC must also be made for spills or releases of hazardous substances that meet or exceed their RQ. | |
| Cook County Emergency Management Agency | |
| 69 W. Washington, Suite 2630 Chicago, Illinois 60602-1369 | (708) 865-4766 (24 Hr.) (312) 603-8180 (Day Phone) |
| REPORTING REQUIREMENTS | |
| TYPE: Any discharge that leaves Facility property in Cook County, IL. | |
| VERBAL: Immediately | |
| WRITTEN: As the agency may request, depending on circumstances. | |
| NOTE: | |
| Indiana Department of Environmental Management | |
| Indianapolis, Indiana | (888) 233-7745 (24 Hr.) (317) 233-7745 (Day Phone) |
| REPORTING REQUIREMENTS | |
| TYPE: Any discharge that may threaten waters of the state or any petroleum spill to land > 55 gallons released offsite or > 1,000 gallons. | |
| VERBAL: Immediately | |
| WRITTEN: As requested by agency. | |
| NOTE: | |

REQUIRED NOTIFICATIONS (Cont'd)**Indiana Lake County Sheriff Department (LEPC)**

| | |
|---|---|
| 2293 N. Main Street Crown Point, Indiana 46307 | (219) 755-3400 (24 Hr.) (219) 755-3000 (Day Phone) |
|---|---|

REPORTING REQUIREMENTS

TYPE: Any discharge that threatens state waters or any petroleum spill to land > 55 gallons released offsite or > 1,000 gallons and contained onsite in Lake County, IN.

VERBAL: Immediately (within 2 hours).

WRITTEN: As the agency may request, depending on circumstances.

NOTE:

Lake County LEPC

| | |
|---|---|
| 2900 W. 93rd Avenue Crown Point, Indiana 46307 | (219) 923-9876 (24 Hr.) (219) 755-3512 (Day Phone) |
|---|---|

REPORTING REQUIREMENTS

TYPE: Any discharge that may threaten waters of the state.

VERBAL: Immediately.

WRITTEN: As requested by agency.

NOTE:

Occupational Safety & Health Administration (OSHA)

| | |
|---|-------------------------|
| 200 Constitution Avenue Washington, District Of Columbia 20210 | (800) 321-6742 (24 Hr.) |
|---|-------------------------|

REPORTING REQUIREMENTS

TYPE: Fatality from a work related incident or the inpatient hospitalization of three (3) or more employees as a result of a work related incident.

VERBAL: Immediately.

WRITTEN: As requested by the Agency.

NOTE:

| REQUIRED NOTIFICATIONS (Cont'd) | |
|--|---|
| U.S. Department of Transportation (DOT) | |
| Pipeline and Hazardous Materials Safety Administration East Building, 2nd Floor, 1200 New Jersey Ave Washington, District Of Columbia 20590 | (800) 424-8802 (24 Hr.) (202) 366-4433 (Day Phone) |
| REPORTING REQUIREMENTS | |
| TYPE: In addition to the reporting of accidents to the NRC, a written accident report may be required for incidents. | |
| VERBAL: Call to the NRC meets the required verbal notification under DOT reporting requirement. | |
| WRITTEN: As soon as practicable, an accident meeting any of the requisite criteria must be reported on PHMSA Form 7000-1. | |
| NOTE: | |
| U.S. Environmental Protection Agency Region V | |
| 77 W. Jackson Blvd., 5th Floor Chicago, Illinois 60604 | (312) 353-2318 (24 Hr.) (312) 353-2000 (Day Phone) |
| REPORTING REQUIREMENTS | |
| TYPE: Immediately for spills that impact or threaten navigable water or adjoining shoreline. | |
| VERBAL: Notification to the EPA is typically accomplished by the call to the NRC. | |
| WRITTEN: Per SPCC requirements, a written report must be submitted within 60 days for a spill in excess of 1,000 gals (approx 24 Bbls) in a single event or two spill events within a 12 month period. | |
| NOTE: | |

OTHER POTENTIAL REQUIRED NOTIFICATIONS

Illinois Emergency Management Agency (SERC)

| | |
|--|---|
| 110 East Adams Springfield, Illinois 62701-1109 | (800) 782-7860 (24 Hr.) (217) 782-7860 (Day Phone) |
|--|---|

REPORTING REQUIREMENTS

TYPE: Any Discharge or sighting of oil, or hazardous substances exceeding a reportable quantity in Cook County, IL.

VERBAL: Immediately.

WRITTEN: As soon as practicable after the release.

NOTE:

Metropolitan Water Reclamation District (POTW)

| | |
|---|---|
| 100 East Erie Street Chicago, Illinois 60611 | (312) 787-3575 (24 Hr.) (312) 751-3044 (Day Phone) |
|---|---|

REPORTING REQUIREMENTS

TYPE: Within 2 hours for a spill to the ground (not on pavement) in Cook County, IL.

VERBAL: Within 2 hours.

WRITTEN: As the agency may request depending on circumstances.

NOTE:

U.S. Army Corps of Engineers-Emergency Management

| | |
|---|---|
| Chicago District, 111 N. Canal Street, Suite 600 Chicago, Illinois 60606 | (312) 353-6400 (24 Hr.) (312) 353-6310 (Day Phone) |
|---|---|

REPORTING REQUIREMENTS

TYPE: Permits for work in, over, or under navigable waters of the United States.

VERBAL:

WRITTEN:

NOTE: Regional Permit 13 (Cleanup of Toxic and Hazardous Material Projects).

OTHER POTENTIAL REQUIRED NOTIFICATIONS (Cont'd)

USCG - MSO Chicago

215 83rd Street, #D
Burr Ridge, Illinois

(630) 986-2130 (24 Hr.)
(630) 986-2155 (Day Phone)

REPORTING REQUIREMENTS

TYPE: Immediately for spills that impact or threaten navigable water or adjoining shoreline.

VERBAL: Notification to the EPA is typically accomplished by the call to the NRC.

WRITTEN: Per SPCC requirements, a written report must be submitted within 60 days for a spill in excess of 1,000 gals (approx 24 Bbls) in a single event or two spill events within a 12 month period.

NOTE:

National Marine Fisheries Service - NE Region

55 Great Republic Drive
Gloucester, Massachusetts 01930

(978) 281-9332 (24 Hr.)

REPORTING REQUIREMENTS

TYPE: Marine resources and habitat issues.

VERBAL: As soon as practicable.

WRITTEN:

NOTE:

Indiana Department of Natural Resources

402 West Washington Street
Indianapolis, Indiana 46204

(317) 232-4020 (24 Hr.)

REPORTING REQUIREMENTS

TYPE: Fish and Wildlife Issues.

VERBAL:

WRITTEN:

NOTE:

| OTHER POTENTIAL REQUIRED NOTIFICATIONS (Cont'd) | |
|--|-------------------------|
| Indiana Department of Transportation | |
| 7306 W. 15th Avenue Gary, Indiana 46406 | (219) 949-7865 (24 Hr.) |
| REPORTING REQUIREMENTS | |
| TYPE: Problem with Street or Highway. | |
| VERBAL: As soon as practicable. | |
| WRITTEN: | |
| NOTE: | |
| Hammond Sanitary District (Wastewater Treatment) | |
| 5143 Columbia Avenue Hammond, Indiana | (219) 853-6412 (24 Hr.) |
| REPORTING REQUIREMENTS | |
| TYPE: Any discharge that threatens state waters or any petroleum spill to land > 55 gallons released offsite or > 1,000 gallons and contained onsite in Lake County, IN. | |
| VERBAL: Immediately | |
| WRITTEN: As requested by agency. | |
| NOTE: | |
| Illinois EPA - Emergency Response (IEPA) | |
| 1021 N. Grand Ave. E Springfield, Illinois 62702 | (217) 782-3637 (24 Hr.) |
| REPORTING REQUIREMENTS | |
| TYPE: Any oil discharge that has impacted or threatens to impact navigable waters or release of hazardous substances in an amount equal to or greater than the reportable quality. | |
| VERBAL: Notification to the EPA is typically accomplished by the call to the NRC. | |
| WRITTEN: For oil discharge, within 60 days, in accordance with applicable SPCC RQ. | |
| NOTE: Per SPCC requirements, a written report must be submitted within 60 days for a spil lin excess of 1,000 gals (approximately 24 Bbls) in a single event or two spill events within a twelve month period. | |

| OTHER POTENTIAL REQUIRED NOTIFICATIONS (Cont'd) | |
|--|---|
| City of Hammond (Water Intake) | |
| 6505 Columbia Ave. Hammond, Indiana | (219) 853-6439 (24 Hr.) |
| REPORTING REQUIREMENTS | |
| TYPE: Any discharge that threatens the water intake. | |
| VERBAL: Immediately. | |
| WRITTEN: As the agency may request depending on circumstances. | |
| NOTE: | |
| U.S. Fish & Wildlife Service - Region III | |
| Fort Snelling, Minnesota | (612) 713-5360 (24 Hr.) (800) 657-3775 (Day Phone) |
| REPORTING REQUIREMENTS | |
| TYPE: Wildlife protection/rehabilitation. | |
| VERBAL: Immediately, | |
| WRITTEN: As the agency may request depending on circumstances. | |
| NOTE: | |

| FIRE, POLICE, HOSPITALS, AIR MEDICAL SERVICE | | |
|---|------------------------|------------------|
| DIAL 911 for all Police, Fire, and Ambulance Emergencies | | |
| AGENCY | LOCATION | TELEPHONE |
| Calumet City Fire Department | Calumet City, Illinois | (708) 891-8145 |
| Thornton Fire Department | Thornton, Illinois | (708) 977-4459 |
| Dolton Fire Department | Dolton, Illinois | (708) 849-2145 |
| Burnham Fire Department | Burnham, Illinois | (708) 891-9865 |
| Alsip Fire Department | Alsip, Illinois | (708) 385-6902 |
| St. Francis Hospital | Blue Island, Illinois | (708) 597-2000 |
| Hammond Fire Department | Hammond, Indiana | (219) 853-6476 |
| Illinois State Police (HAZMAT Officer) | Des Plaines, Illinois | (312) 814-8367 |
| Indiana State Police | Lowell, Indiana | (800) 552-8917 |
| St. Margaret's Hospital | Hammond, Indiana | (219) 932-2000 |
| St. Catherine Hospital | East Chicago, Indiana | (219) 392-1700 |
| Hammond Police Department | Hammond, Indiana | (219) 853-6490 |
| Indiana Fire Marshall | Indianapolis, Indiana | (317) 232-2222 |
| Midlothian Fire Department | Midlothian, Illinois | (708) 385-5151 |
| Riverdale Fire Department | Riverdale, Illinois | (708) 849-2121 |

| MEDIA NOTIFICATIONS | | |
|---|-------------------|------------------|
| AGENCY | LOCATION | TELEPHONE |
| WGN Channel 9 Independent (Television) | Chicago, Illinois | (312) 883-3430 |
| National Weather Service (Recorded Forecasts) | Chicago, Illinois | (815) 963-8518 |
| WBBM AM 780 | Chicago, Illinois | (312) 297-7800 |
| WBEZ FM 91.5 | Chicago, Illinois | (312) 832-9150 |
| WFMT FM 98.7 | Chicago, Illinois | (773) 279-2000 |
| WJMK FM 104.3 | Chicago, Illinois | (312) 591-9565 |
| WFLD TV 32 (FOX) | Chicago, Illinois | (312) 565-5533 |
| WLS TV 7 (ABC) | Chicago, Illinois | (312) 750-7777 |
| WMAQ TV 5 (NBC) | Chicago, Illinois | (312) 836-5555 |
| WTTW TV 11 (PBS) | Chicago, Illinois | (773) 509-1111 |
| WBBM TV 2 (CBS) | Chicago, Illinois | (312) 899-2222 |

| OTHER PUBLIC/INDUSTRY CONTACTS | | |
|---------------------------------------|-----------------|------------------|
| COMPANY | LOCATION | TELEPHONE |
| Poison Control Center | Illinois | (800) 942-5969 |



3.0 RESPONSE ACTIONS

- 3.1 [Initial Response Actions](#)
- 3.2 [Incident Specific Response Actions](#)
 - [Fire / Explosion Incidents](#)
 - [Hazardous Material Or Oil Spill/Release Incidents](#)
 - [Abnormal Pipeline Operations](#)
 - [Security Incidents](#)
 - [Medical Emergency/Rescue Incidents](#)
- 3.3 [Product Specific Response Considerations](#)
- 3.4 [Air Monitoring](#)
- 3.5 [Decontamination](#)
- 3.6 [Personal Protective Equipment](#)
- 3.7 [Evacuation](#)
- 3.8 [Documentation of Initial Response Actions](#)

3.1 INITIAL RESPONSE ACTIONS

Initial response actions are those actions taken by personnel immediately upon becoming aware of a discharge or emergency incident, before the appropriate Emergency Response Team (ERT) (described in Section 4.0) is formed and functioning. Timely implementation of these initial steps is of the utmost importance because they can greatly affect the overall response operation.

It is important to properly classify the emergency level to ensure a proper response. The emergency level of the incident will affect the notifications and the initial response to the incident.

Emergency/Incident Classification

| Incident Category | CONSIDERATIONS | | | |
|-------------------|---|--|---|----------------------|
| | HEALTH/SAFETY | COMMUNITY IMPACT | ENVIRONMENTAL IMPACT | RELIABILITY IMPACT |
| I | No Onsite Injury to First Aid or No Injury to Public Small Fire - No ERT Response Required | No to Minor Impact to People or No Media Coverage | Minor Spill or Release No Reportable Quantity or No Agency Contact or No Response Needed | \$0 to \$100K |
| II | Onsite Recordable to Lost Time Injury or Nuisance to Public Moderate Fire - ERT Response Required | Community Warning or Local Media Coverage | Moderate Spill or Release Reportable Quantity with Agency Notification or Short Duration Remediation | From \$100K to \$1MM |
| III | Permanent Disabling Injury to Single or Multiple Fatality within the immediate area or Medical Treatment to Public Major Fire or Explosion - Mutual Aid Response Required | Shelter in Place or State to Regional Media Coverage | Major Spill or Release Reportable Quantity with Multi-Agency Involvement or Prolonged Remediation | From \$1MM to \$10MM |
| IV | Multiple Fatalities across the Site or Public Fatality Catastrophic Fire or Explosion | Public Evacuation or National Media Coverage | Catastrophic Spill or Release Agency Intervention or Permanent Environmental Damage | Greater than \$10MM |

It is important to note that **the actions described in this section are intended only as guidelines** . The appropriate response to a particular incident may vary depending on the nature and severity of the incident and on other factors that are not readily addressed. Note that, **without exception, personnel and public safety is first priority** .

INITIAL RESPONSE ACTIONS - SUMMARY

- 1 Assume responsibility and control of the situation.
- 2 Assess the incident - Personnel and Public Safety is first priority.
- 3 Provide immediate aid to the injured.
- 4 Eliminate any sources of ignition.
- 5 Isolate the source of a discharge, eliminate, or minimize further flow.
- 6 Conduct immediate notification to activate the alarm system and mobilize the Spill Management Team or Local Response Team, Fire Department, Oil Spill Response Team, or Hazmat Team as necessary.
- 7 Control the area - Evacuate as needed and prevent personnel from entering the area until trained responders have arrived.

Section 3.2 discusses initial response actions for specific incidents.

The first Company employee on scene will function as the Person-in-Charge until relieved by an authorized supervisor who will assume the role of on-scene Incident Commander. Transfer of command will take place as more senior management respond to the incident.

The person functioning as **Incident Commander** during the initial response period **has the authority to take the steps necessary to control the situation and must not be constrained by these general guidelines**.

3.2 INCIDENT SPECIFIC RESPONSE ACTIONS

Remember, without exception, personnel safety is the first priority, excessive exposure to the vapor and liquid stages of the spilled product should be avoided.

The following figures describe initial response activity for specific types of incidents. They are intended as guidelines. Each individual responsible for a response action must evaluate each action to ensure Personal Safety prior to conducting that action.

Fire / Explosion Incidents

Pipeline Right of Way

- In the event of fire in the absence of a supervisor or the Senior Pipeline Technician, any Company employee on duty may be designated as the individual in charge.
- The individual discovering the fire will adhere to the instructions above:
 - Ensure that the fire department has been notified.
 - Alert all Facility areas of the exact location and extent of the fire.
 - Ensure supervisor is notified by telephone (refer to Figures 2.1 and 2.2).
- Prior to the arrival of a member of a supervisor, the individual will remain in charge and will direct the fire department to the scene of the fire.
- Handle the calls.
- Call the Fire and Police Departments (911).
- Notify the Operations Control and Senior Pipeline Technician.
- Go to the scene of the incident to evaluate the situation.
- Update Operations Control and Senior Pipeline Technician.

Hazardous Material or Oil Spill/Release Incidents

Line Break or Leak

- Notify Operations Control and Senior Pipeline Technician.
- Operations Control will perform shut down procedures outlined in Procedural Manual.
- Obtain all the necessary information to complete the leak report.
- Qualified personnel should use Combustible Gas Indicator, O2 meter, proper colorimetric indicator and/or other air sampling measurements to ensure that areas are safe to enter for continued response operations. Refer to Safety Volume for further guidance.
 - Mitigate spreading of the product, as the situation demands. Potential containment strategies include:
 - Earthen dike/berm
 - Ditching
 - Spreading sorbent material over the spill
 - Prevent the spill from entering the waterways, sewer, etc. to the greatest extent possible.
- Inform local operators such as utilities, telephone company, railway.
- Review the location of socio-economic and environmentally sensitive areas identified in Section 6.0. Determine which of these may be threatened by the spill and direct the response operation to these locations. Initiate protection and recovery actions.
- Determine the direction and expected duration of spill movement.
- Make all necessary repairs.
- Clean up spilled product to eliminate any possible environmental problems. Be alert for underground cables.
- Return the line to service when repairs are complete.
- Complete follow-up and written reporting, as the situation demands.

Abnormal Pipeline Operations

Person Who Discovers the Pipeline Incident

- If operating design limits have been exceeded (increase or decrease pressure or flow) and no emergency condition exists, stop operations and immediately investigate the pipeline.
- Verify whether a true safety problem, equipment malfunction, or operator error is present.
- If the situation is due to malfunctioning equipment, can transfer operations can continue safely? If yes, then bypass the faulty equipment until the completion of the transfer and make appropriate repairs. **Note: In all cases, safety to operations, the general public, and property will govern actions taken.**
- If the transfer can not continue safely, make appropriate repairs before continuing operations. **Note: Corrective action will only be done by qualified personnel to perform the type of work involved.**
- Monitor affected systems until normal operations are resumed.
- Inform local operators such as utilities, telephone, and/or railway.
- Complete follow-up and written reporting, as the situation demands.

Note: Abnormal operations are further detailed in the Company's O&M Manual.

Security Incidents

(b) (3), (b) (7)(F)

Medical Emergency/Rescue Incidents

Person Who Discovers the Medical Emergency

- Apply appropriate first aid for both injury and shock, exercising care not to cause further injury.
- If victim is unconscious and not breathing, immediately apply artificial respiration (if trained in CPR) and continue without interruption until natural breathing is restored or until relieved by another CPR-trained individual or other qualified medical personnel.
- Call for ambulance or other medical evacuation resources, if appropriate.
- Notify hospital of patient arrival and extent of injury.
- Notify victim's immediate family.
- Complete follow-up and written reporting, as the situation demands.

3.3 PRODUCT SPECIFIC RESPONSE CONSIDERATIONS

The following emergency response guides may be used by first responders during the initial phases of a hazardous material incident.

| FLAMMABLE LIQUIDS (Non-Polar/Water-Immiscible) | |
|---|--|
| <p>The following information provides the initial responder(s) with data that may be useful in making quick decisions and executing prompt response actions. <u>The information is intended for guideline purposes only.</u></p> | |
| HEALTH | |
| GUIDE NO. 128 | <ul style="list-style-type: none"> ● Inhalation or contact with material may irritate or burn skin and eyes. ● Fire may produce irritating, corrosive and/or toxic gases. ● Vapors may cause dizziness or suffocation. ● Runoff from fire control or dilution water may cause pollution. |
| FIRST AID | |
| <ul style="list-style-type: none"> ● Move victim to fresh air. ● Call 911 or emergency medical service. ● Give artificial respiration if victim is not breathing. ● Administer oxygen if breathing is difficult. ● Remove and isolate contaminated clothing and shoes. ● In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes. ● Wash skin with soap and water. ● In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin. ● Keep victim warm and quiet. ● Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed. ● Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. | |
| PUBLIC SAFETY | |
| <ul style="list-style-type: none"> ● Isolate spill or leak area immediately for at least 50 meters (150 feet) in all directions. ● Keep unauthorized personnel away. ● Stay upwind. ● Keep out of low areas. ● Ventilate closed spaces before entering. | |
| EVACUATION | <p>Large Spill</p> <ul style="list-style-type: none"> ● Consider initial downwind evacuation for at least 300 meters (1,000 feet). <p>Fire</p> <ul style="list-style-type: none"> ● If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. |
| Information provided by the Emergency Response Guidebook 2008. | |

3.4 AIR MONITORING

During an incident in which oil or hazardous material has been spilled or potentially could affect the response, prior to engaging in any spill response activity, air monitoring should be conducted in the affected area.

It is imperative that all air monitoring equipment is operated and their data interpreted by trained personnel thoroughly familiar with the equipment.

- The air monitoring equipment should be calibrated before and after every use using the equipment manufacturer's recommended procedures and standards.
- Air monitoring measurements which are to be made prior to entry into the spill area include:
 - Lower Explosive Limit (LEL)
 - Oxygen content
- LEL readings above 10% require immediate evacuation of the area and elimination of ignition sources.
- Oxygen readings below 19.5% require the use of air supplied respiratory protection.
- Where unknown and multiple contaminants may be present, instrument readings should be interpreted conservatively.

The Incident Commander is responsible for industrial hygiene monitoring in the post discovery period and may refer to the Safety Officer.

3.5 DECONTAMINATION

Establishing "Exclusion (Hot)", "Decontamination (Decon)", and "Support (Safe)" zones are required to prevent the removal of contaminants from the contaminated area by response personnel and activities as well as unauthorized entry into contaminated areas.

- Regardless of the decontamination facilities available, all efforts to minimize personnel exposure should be taken.
- Decontamination facilities should be positioned prior to employee/ contractor entrance to areas where the potential for exposure to contamination exists. The appropriate Material Safety Data Sheets (MSDS) are available to aid health professionals treating the injured parties. MSDS are separately maintained at the Facility.
- Decontamination facilities should be designed to prevent further contamination of the environment and should have a temporary storage area for items that will be reused in the contaminated area.
- Particular attention should be paid to personal hygiene prior to eating, drinking, or smoking.

Simple Decontamination

Step 1 - Drop tools and equipment which will be utilized during the ongoing response.

Step 2 - Wash responder and equipment with water or cleaning agent.

Step 3 - Apply chemical solution using a long handle brush.

Step 4 - Rinse off all residue of the chemical solution.

Step 5 - Remove boot covers and outer boots.

Step 6 - Change SCBA Tank

- Responder returns to Hot Zone, or
- Continues decontamination

Step 6a - If returning to the Emergency:

- Redress at the Hot Line and re-enter the emergency area.

Step 7 - Rewash personal protective equipment

- Allow PPE to air dry or wipe dry with absorbent pads
- Remove boots, gloves, and outer garments for disposal, additional off-site decontamination, or storage
- Remove SCBA
- Store decontamination gear and equipment for further use.

Step 8 - Field wash

- Redress into work clothes

Step 9 - Receive medical check-up

Clothing - Clothing not completely decontaminated must be placed into plastic bags for further decontamination or placed into disposal drums.

Equipment - All equipment must be decontaminated or be placed into properly labeled disposal drums.

Spent Chemical or Wash Water - All Spent Chemical neutralization solution or wash water must be collected and be disposed of:

- As hazardous waste, or
- Into disposal drums, or
- Through a proper waste water treatment facility.

NOTE: See Appendix E for Disposal Plan.

First Aid Procedure - Emergency Decontamination

If Life Threatening

1. Provide medical attention to stabilize injured workers before decontamination in Life - Threatening situations.

2. Ensure that personnel administering medical assistance are dressed in rubber boots, eye protection, rubber gloves and respirator.
3. All efforts should be made to decontaminate the injured person prior to placement in an ambulance or evacuation vehicle, so long as decontamination does not interfere with the life saving process.
4. Place the injured contaminated worker only in areas covered by plastic sheeting, including the inside of the ambulance or evacuation vehicle.
5. Notify the hospital of the delivery of a contaminated, injured patient so it can take special contamination prevention precautions.

If Non-Life Threatening

1. Perform decontamination on all injured workers in a Non-Life Threatening situation before administering medical attention.

Decontamination Team

Trained Employees - Specific employees have been designated and trained as a decontamination team.

Responsibilities:

- Pre-Plan for decontamination
- Set up the decontamination facility
- Prepare the chemical decon solutions
- Decontaminate each responder
- Dispose of clothing, equipment, chemical rinse
- Clean and restore all decon equipment at the end of activities
- Decontaminate each team member prior to leaving the decon area.
- Collect and manage wastes generated

At Least PPE Level "C" Protection

- Each team member must wear at least level "C" PPE protection:
 - Coveralls
 - Rubber boots
 - Splash goggles
 - Gloves (Elbow Length)
 - Full face respirator
- Wear one level lower of PPE than the level of PPE being worn by the responders being decontaminated.

Large Response Equipment

- Consideration must be given to establishing a decontamination process for large response equipment such as boats, back-hoes, fire apparatus, and boom.
- Locate an area at the edge of the Hot Zone where contaminated equipment can be isolated and the decontamination process can be undertaken.
- Physical barriers must be erected to limit the spread of the contaminants and to allow for collecting the decontamination solution.
- Cleaning solutions should be physically separated and arranged in order of descending contamination, as in personal decontamination.

- Equipment must be physically moved or driven to the next decon station.
- Rinse solution, spent neutralization agent, or other contaminated solutions shall be collected and be stored in drums or be diverted to the process sewer system.
- These materials shall be sampled and tests performed to determine if they meet the definition of regulated hazardous materials or waste.

Electronic Equipment

- Procedures shall be instituted to limit the contamination of electronic equipment such as laptop computers, radios, meters, or other electronic equipment.
- Only necessary or required electronic equipment should enter the Hot Zone.
- If electronic equipment must enter the contaminated area, covering the equipment with plastic prior to entering the Hot Zone will reduce the overall level of contamination.
- An isolation area should be established at the edge of the Hot Zone for electronic equipment such as radios, which may be required in the Hot Zone and are difficult to decontaminate.
- Once the event is completed, contaminated equipment should be decontaminated, if possible, or stored in recovery drums and be considered waste material.

Conclusion of Activities

- Workers - Decontamination workers must decontaminate each other, their tools, and their equipment.
- Stations - Decontamination stations must be washed out and wiped dry using absorbent pads.
- Disposal - Decontamination workers must dispose of their suits and plastic sheeting in disposal drums.
- Store Equipment - Store decontamination equipment for future use.
- Reorder Supplies - Reorder neutralization solutions, brushes, pads, and other supplies for future needs.

3.6 PERSONAL PROTECTIVE EQUIPMENT (PPE)

The following table represents OSHA/EPA designated PPE levels for responding to emergencies, post emergency cleanup sites, and/or Temporary Storage and Disposal (TSD) sites. The responder's PPE should be chosen based on his/her level of training and assigned job duties.

| PERSONAL PROTECTIVE EQUIPMENT (PPE) | |
|---|--|
| <p>LEVEL A</p> <p>Self Contained Breathing Apparatus (SCBA) (worn inside suit) Encapsulated Chemical Protective Suit Chemical Protective Gloves Chemical Protective Boots Hard Hat</p> | <p>LEVEL B</p> <p>SCBA (worn outside suit) Chemical Protective Suit w/Hood Chemical Protective Boots Chemical Protective Gloves Hard Hat</p> |
| <p>LEVEL C</p> <p>Air Purifying Respirator (APR) APR ½ Face / Full Face Hard Hat Glasses (worn with ½ face APR) Chemical Protective Boots Chemical Protective Gloves Chemical Protective Suit/Tyvek</p> | <p>LEVEL D</p> <p>Hard Hat Safety Glasses Work Uniform / Clothes Leather Gloves Safety Boots</p> |
| <p>MODIFIED LEVEL C</p> <p>Same as Level C except no APR requirements</p> | |

3.7 EVACUATION

This evacuation plan shall be implemented in the event of an incident which requires the evacuation of one or more areas of the Facility.

The primary responsibility of the Incident Commander is to account for all employees and visitors in the emergency area.

Evacuation Planning

The primary evacuation routes were developed with the following factors taken into consideration:

- ✓ location of stored materials;
- ✓ hazard imposed by spilled material;
- ✓ spill flow direction;
- ✓ prevailing wind direction and speed;
- ✓ water currents, tides, or wave conditions (if applicable);
- ✓ arrival route of emergency response personnel and response equipment;
- ✓ evacuation routes;
- ✓ alternative routes of evacuation;
- ✓ transportation of injured personnel to nearest emergency medical facility;
- ✓ location of alarm/notification systems;
- ✓ the need for a centralized check-in area for evacuation validation (roll call);
- ✓ selection of a mitigation command center; and
- ✓ location of shelter at the facility as an alternative to evacuation.

All employees and contractors have been trained to evaluate the safety of the primary route prior to using it for evacuation.

The Evacuation Diagram in Appendix G shows the primary evacuation routes throughout the Facility.

Evacuation Response

Isolation of Potential Emergency Site

For all potential emergency situations, isolation of the area affected by employees and the general public will always be an immediate priority. Since each emergency is different, the size of the area to be isolated and the method of isolation will vary on a case by case basis.

In general, fenced pipeline installations such as tank farms, delivery terminals and pump stations can be isolated by controlling traffic at the installation's main gate. For situations on the pipeline right-of-way, the response team must quickly determine the size of the area potentially affected and work closely with local responders to make every effort to control all access to the area by road, rail or footpath.

In general, a potential emergency situation will be most easily isolated through the prompt enlistment of help from local responders (police, fire, etc.) to help control an area other than a fenced Facility. Section 2.0 contains listings of how to contact these personnel.

Facility Evacuations

It is often difficult to determine when the quantity of vapors present constitute a hazard severe enough to warrant shutdown of operations and maintenance and the evacuation of the work site or pipeline, even when hazardous atmosphere detectors are in use.

Employees must ultimately use their own judgment based on the available information, in addition to previous experience and training, in making this decision. In all cases these judgments should be conservative, i.e., they should err on the side of safety and caution.

The protection of human life must always take precedence over the protection of physical property or equipment.

Remote System Locations; Right-of-Way Locations

The Controller or appropriate supervisor responsible for the remote location or line section will immediately shut down the appropriate lines and isolate the location to the extent possible by closing the appropriate remotely controlled block valves.

The Controller or appropriate supervisor will notify the QI to start the response to the event. Dependent on the situation, the QI will send the appropriate personnel to the affected location to investigate. If an event is reported from the right-of-way, the QI will contact the appropriate pipeline operator who will be responsible for closing manual line block valves.

Personnel responding to the affected location should always make an initial assessment of the site at a safe distance from the likely source point of the release. If the source point cannot be isolated without entering a vapor cloud or other hazardous situation, the investigating personnel should stay out of the hazardous area. A call for immediate assistance should be made to the Controller and to the QI to begin notification of the appropriate members of the SMT, who are properly equipped to approach and isolate a release of this nature.

The QI has responsibility for contacting the appropriate local officials for assistance in evacuating and isolating all persons from the affected area and controlling traffic and spectators if needed.

Evacuations Involving the General Public

Specific Procedure

- The Company's acting On-Scene Commander first assesses the incident and determines it is necessary to evacuate the public from the immediate affected area (local officials should be included in this decision making if time permits).
- Coordination of evacuation efforts is the responsibility of the On-Scene Commander, or the person assigned as the SMT's Liaison Officer.
- If the incident involves injured persons, refer to "Medical Emergencies" of Section 3.0.
- Local authorities such as the police, highway patrol and fire departments should be pressed into service assisting an evacuation, with the Company's On-Scene Commander or Liaison Officer acting as direct liaison to these officials.
- All nearby occupied dwellings should then be visited and the inhabitants informed of the dangers as soon as possible. Evacuation instructions to residents must insist that all open flames including pilot lights and gas burners be extinguished if possible.
- Conduct evacuation on foot if necessary.

- Warn all evacuees against activities such as smoking, operating motor vehicles, using spark-producing appliances, etc. The Company should attempt to render whatever assistance is necessary to the evacuees.
- Keep the QI and/or Safety Officer informed of any evacuation efforts so they may pass along the latest information regarding such actions to other support personnel.
- In the interest of safety, the media and other members of the general public may need to be utilized to quickly inform people in the immediate area of an ongoing evacuation effort.
- Members of the press should be advised that electronic equipment such as camera lights and flashes can be potential sources of ignition when explosive vapors are present.

Traffic Control

- If an incident occurs near a road or railroad, local traffic may need to be halted or diverted from the immediate area. The assistance of local authorities should be solicited to enforce any necessary detours of local traffic until the hazardous situation can be stabilized. Railroads should be notified so they can halt rail traffic.

Notification of Public Officials

- The Company must be prepared to coordinate the Company's response to emergencies with public officials as appropriate. The QI or other appointee will interface with public officials on the appropriate seniority levels who are concerned about an emergency response in progress. The QI will meet directly with onsite incident commanders from other agencies in order to best coordinate response efforts. The Liaison Officer will act as Company liaison with various local emergency responders during the incident. The Environmental Situation Chief will act as liaison with federal and state-level environmental responders if necessary. The Safety Officer shall act as liaison with OSHA representatives if necessary.
- In case of an emergency within the Facility that would necessitate evacuation, some or all of the following steps are taken, depending on type of emergency and circumstances:
 - Sound an alarm or give verbal alarm.
 - Call 911.
 - Shut down loading and pipeline receiving operations.
 - Evacuate trucks from facility (provided that a safe operating environment exists).
 - Divert incoming trucks to a safe distance away.
 - Evacuate all personnel to staging area.
- An evacuation diagram is posted in the office and on the following page, showing evacuation routes from different areas of the Facility. However, evacuation routes can be decided upon during a spill if they take the following factors into consideration:
 - Location of Stored Materials - See Facility Diagram for location of storage tanks.
 - Hazard Imposed by the Spilled Material - Excessive exposure to vapors and liquid stages of any spilled product should be avoided.
 - Spill Flow Direction - A discharge originating from the Facility would flow to the north.
 - Prevailing Wind Direction - Prevailing winds in the Hammond area generally come from the southwest (210°) throughout the year with an average wind speed of 10 mph.
- The Terminal Emergency Siren alarm button is located outside the front office building on the southeast corner. A primary evacuation muster point is located outside the office on 141st Street. If appropriate, a roll call would be taken to account for all personnel. Should the need arise, shelter may be taken at the Facility office located on Facility property.

- During a spill, a mitigation command center will be established on or off site depending on conditions. This decision will be made during the initial stages of a spill. The office will more than likely be the onsite location for a command post. The location for an offsite command post will be decided upon based on availability.
- Response personnel and equipment will use emergency and normal exits at the Facility during an emergency at the Facility.

Directions to Hospital

- The nearest hospital is St. Margaret's Mercy Hospital at 5454 Hohman Avenue, Hammond, IN. To get to the hospital from the Facility, go west on 141st Street by turning left. Turn left onto US-41 (Calumet Avenue); turn right onto Fayette Street; turn left onto Sohl Avenue; turn right onto Douglas Street; then turn left onto Hohman Avenue.

Community Evacuation

- Community evacuation would include any residential subdivisions and neighboring business. Community evacuation plans are in place and local agencies will initiate and coordinate these efforts.
- The Community Alert Network provides Lake County emergency notification. Calls start immediately at a rate of 3,000 to 5,000 an hour. It will provide instructions on what residents need to do. This includes "In-Place" Sheltering or evacuation as required.

3.8 DOCUMENTATION OF INITIAL RESPONSE ACTIONS

The Incident Commander, starting with the initial responder, must document the events and communications occurring around an incident. Initially, events and communications may be written in a personal notepad and transcribed to a more formal format at a later time. Once the Incident Management Team is activated, all records are to be kept using the appropriate ICS forms. When recording information during an event, it is important to capture only the pertinent facts as related to response activities.

The criteria for incident documentation varies according to the type of incident. Any incident requiring documentation under applicable Federal and/or State regulations will be documented and maintained as follows:

- Agency notification logs will be filed and be maintained.
- Any follow-up letters required by regulation will be maintained.
- A root cause investigation will be performed for the facility in which the incident occurred. The investigation report as well as records of follow-up actions and activities generated by the investigation will be maintained.
- When a formal response critique occurs, the incident response critique and records of follow-up activities will be maintained.
- If drill or exercise credit under the National Preparedness for Response Exercise Program (PREP) is to be taken for an actual response, the appropriate PREP documentation will be maintained.
- All records of Lessons Learned during actual incidents will also be maintained.

Examples of what to record:

- Record only facts.
- Record the recommendations, instructions, and actions taken by government/regulatory officials.
- Document conversations (telephone or in person) with government/ regulatory officials.
- **Request that government/regulatory officials document and sign their orders or recommendations (especially if Company personnel do not agree with their suggestions, instructions, or actions).**

Examples of what **NOT** to put into the records.

- × Speculations.
- × Criticisms of efforts and/or methods of other people/operations.
- × Skipping lines or making erasures unless an error is made. If an error is made, then line through it, add the correct entry above or below it, and initial the change.

If response to an actual event is to be used for PREP credit, the following information will be included in the documentation:

- The type of response
- Date and time of the response
- A description of the incident and the response
- The Plan components addressed in the response (see Appendix D - Training and Drills)
- The PREP requirements fulfilled by the response
- Lessons learned



4.0 RESPONSE TEAMS

- 4.1 [Introduction](#)
- 4.2 [Qualified Individual](#)
- 4.3 [Emergency Response Team \(ERT\)](#)
- 4.4 [Incident Management Team \(IMT\)](#)
- 4.5 [Corporate Emergency Management Group](#)
- 4.6 [Incident Command System](#)
- 4.7 [Unified Command](#)
- 4.8 [National Response Framework](#)

Figure 4.1 [Response Organization](#)

Figure 4.2 [Federal Representation on National Response Team](#)

Figure 4.3 [U.S. Environmental Protection Agency \(EPA\) Regional Offices](#)

Figure 4.4 [U.S. Coast Guard \(USCG\) Districts](#)

Figure 4.5 [Incident Management Team - Command Structure](#)

Figure 4.6 [ICS Roles and Responsibilities](#)

Figure 4.7 [Emergency Operations Center](#)

4.1 INTRODUCTION

This section describes organizational features and duties of the Qualified Individual and the Premcor Hammond Terminal Incident Command System (ICS).

The Premcor Hammond Terminal ICS is based upon the National Incident Management System and is consistent with the ICS procedures utilized by many agencies and the oil industry around the world.

The Premcor Hammond Terminal Incident Management Organization effectively integrates three elements - the on-scene Emergency Response Team (ERT), an Incident Management Team (IMT) and an Emergency Operations Center (EOC) - into a single organization. Each of these elements has predefined roles and responsibilities summarized below.

- **Emergency Response Team.** Consists of Premcor Hammond Terminal personnel, industrial mutual aid, and environmental contractor's units, operating at the scene of an emergency under the command of the On-Scene Commander. Depending upon the nature of the incident, emergency response team operations could include firefighting, HAZMAT, medical, oil spill response, technical rescue, and scene safety.
- **Incident Management Team (IMT) (e.g., Command Staff, Planning, Logistics, and Finance Sections).** Consists of senior Premcor Hammond Terminal managers and support staff, who are responsible for managing the overall emergency response, addressing corporate, external and governmental notifications, and supporting emergency and process control operations in the field.
- **Corporate Emergency Management Group (EMG)** Consists of senior company personnel that support the IMT on policy and strategy issues related to Crisis Management, Assets, Law, Government/Public Affairs, Human Resources and Digital Business.

The key to an effective emergency response is a rapid, coordinated, tiered response by the affected Unit and the ERT/IMT and the Oil Spill Removal Organization (OSRO), consistent with the magnitude of an incident. OSRO roles and responsibilities will be defined by the Incident Commander through the Unified Command depending on the severity of the incident.

The U.S. Occupational Safety and Health Administration (OSHA) requires that organizations which respond to emergencies involving hazardous materials adopt a nationally recognized Incident Command System [29 CFR 1910.120(q)(3)(i)]. The Incident Management System (IMS) is based upon *The National Incident Management System (NIMS)*, as developed by the Department of Homeland Security. Personnel assigned specific positions on response teams are thoroughly familiar with their roles and responsibilities, and participate in specified training programs and exercises simulating oil spill events.

The NIMS Incident Command System (ICS) is used to manage emergency response activities. Because ICS is a management tool that is readily adaptable to incidents of varying magnitude, it will typically be used for all emergency incidents. Staffing levels will be adjusted to meet specific response team needs based on incident size, severity, and type of emergency.

The USCG Incident Management Handbook (IMH) contains an in-depth description of all ICS positions, ICS development, response objectives and strategies, command responsibilities, ICS specific glossary/acronyms, resource typing, the Incident Action Plan (IAP) process, and meetings.

4.2 QUALIFIED INDIVIDUAL

The Qualified Individual (QI) is responsible for the full implementation of the Facility Response Plan and is trained for these responsibilities. The Designated Alternate provides relief to the QI as needed to ensure that at least one QI is available to respond on a 24 hour basis. The QI/AQI is responsible for implementing response plans, directing response operations, and resolving internal conflicts that arise during response operations either directly or through the use of qualified designees.

It is the responsibility of the Qualified Individual (QI) or his/her designee to coordinate with the Federal On-Scene Coordinator (FOSC) and State On-Scene Coordinator (SOSC) throughout the response.

Vital duties of the Qualified Individual (QI) include:

- Activate internal alarms and hazard communication systems to notify all Facility personnel.
- Notify all response personnel, as needed.
- Identify the character, exact source, amount, and extent of the release, as well as the other items needed for notification.
- Notify and provide necessary information to the appropriate Federal, State, and local authorities with designated response roles, including the National Response Center (NRC), State Emergency Response Commission (SERC), and local response agencies.
- Assess the interaction of the spilled substance with water and/or other substances stored at the Facility and notify response personnel at the scene of that assessment.
- Assess the possible hazards to human health and the environment due to the release. This assessment must consider both the direct and indirect effects of the release (i.e., the effects of any toxic, irritating, or asphyxiating gases that may be generated or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and heat-induced explosion).
- Assess and implement prompt removal actions to contain and remove the substance released.
- Coordinate rescue and response actions as previously arranged with all response personnel.
- Activate and engage in contracting with oil spill removal organizations.
- Use authority to immediately access Company funding to initiate cleanup activities.
- Direct cleanup activities until properly relieved of this responsibility.
- Arrangements will be made to ensure that the Qualified Individual (QI) or the Alternate Qualified Individual (AQI) is available on a 24-hour basis and is able to arrive at the Facility in a reasonable time.
- The AQI shall replace the QI in the event of his/her absence and have the same responsibilities and authority.

4.3 EMERGENCY RESPONSE TEAM (ERT)

The Emergency Response Team (ERT) consists of company personnel throughout the Facility. The ERT is available 24/7 to handle emergencies and is composed of a specialized group of personnel trained to respond to fires, HAZMAT, and spill response. The number of positions/personnel required for any response will depend on the size and complexity of the incident with the purpose of protecting people, property and the environment from the effects of an incident or release.

4.4 INCIDENT MANAGEMENT TEAM (IMT)

The Incident Management Team (IMT) consists of managers, supervisors, engineers, and environmental and safety professionals, who may have managerial duties in case of a release of oil or hazardous material. The IMT is available on a 24-hour basis. A list of IMT personnel is located in the internal notifications in Section 2. The IMT personnel are proficient in NIMS ICS and may be called on to support the ERT, as required.

4.5 CORPORATE EMERGENCY MANAGEMENT GROUP

The Corporate Emergency Management Group consists of senior Company personnel that support the IMT. The EMG is available on a call out basis. A list of team members is located in the Internal Notifications in Section 2. The organization and responsibilities are described in Figure 4.6.

4.6 INCIDENT COMMAND SYSTEM

The Incident Command System is intended to be used as an emergency management tool to aid in mitigating all types of emergency incidents. This system is readily adaptable to very small emergency incidents as well as more significant or complex emergencies. The Incident Command System utilizes the following criteria as key operational factors:

- Assigns overall authority to one individual
- Provides structured authority, roles and responsibilities during emergencies
- The system is simple and familiar and is used routinely at all incidents
- Communications are structured
- There is a structured system for response and assignment of resources
- ICS provides for expansion, escalation, and transfer/transition of roles and responsibilities
- ICS allows for "Unified Command" where agency involvement at the command level is required

Effective establishment and utilization of the Incident Command System during response to all types of emergencies can:

- Provide for increased safety
- Shorten emergency mitigation time by providing more effective and organized mitigation
- Cause increased confidence and support from local, state, federal and public sector emergency response personnel
- Provide a solid cornerstone for emergency planning efforts

The Incident Command structure for the Premcor Hammond Terminal, including incident specific Operations Section command structure is shown in Figure 4.5. A description of each ICS position, the primary responsibilities, and pre-emergency planning activities are provided in Figure 4.6.

4.7 UNIFIED COMMAND

As a component of an ICS, the Unified Command (UC) is a structure that brings together the Incident Commanders of all major organizations involved in the incident to coordinate an effective response while still meeting their own responsibilities. The UC links the organizations responding to the incident and provides a forum for the Responsible Party and responding agencies to make consensus decisions. Under the UC, the various Federal, State and Local jurisdictions and/or agencies and responders may blend together throughout the organization to create an integrated response team. The ICS process requires the UC to set clear objectives to guide the on-scene response resources.

Multiple jurisdictions may be involved in a response effort utilizing Unified Command. These jurisdictions could be represented by any combination of:

- Geographic boundaries
- Government levels
- Functional responsibilities
- Statutory responsibilities

The participants of Unified Command for a specific incident will be determined taking into account the specifics of the incident and existing response plans and/or decisions reached during the initial meeting of the UC. The UC may change as an incident progress in order to account for changes in the situation.

The UC is responsible for overall management of an incident. The UC directs incident activities and approves and releases resources. The UC structure is a vehicle for coordination, cooperation and communication which is essential to an effective response.

UC representatives must be able to:

- Agree on common incident objectives and priorities
- Have the capability to sustain a 24-hour-7-day-a-week commitment to the incident
- Have the authority to commit agency or company resources to the incident
- Have the authority to spend agency or company funds
- Agree on an incident response organization
- Agree on the appropriate Command and General Staff assignments
- Commit to speak with “one voice” through the Public Information Officer or Joint Information Center
- Agree on logistical support procedures
- Agree on cost-sharing procedures

4.8 NATIONAL RESPONSE FRAMEWORK

National Response Framework

The *National Response Framework (NRF)* presents the guiding principles that enable all response partners to prepare for and provide a unified national response to disasters and emergencies - from the smallest incident to the largest catastrophe. The *Framework* defines the key principles, roles, and structures that organize the way we respond as a Nation. It describes how communities, tribes, States, the Federal Government, and private-sector and nongovernmental partners apply these principles for a coordinated, effective national response. The *National Response Framework* is always in effect, and elements can be implemented at any level at any time.

Emphasis on Local Response

All incidents are handled at the lowest possible organizational and jurisdictional level. Police, fire, public health and medical, emergency management, and other personnel are responsible for incident management at the local level. For those events that rise to the level of an Incident of National Significance, the Department of Homeland Security provides operational and/or resource coordination for Federal support to on-scene incident command structures.

Proactive Federal Response to Catastrophic Events

The National Response Framework provides mechanisms for expedited and proactive Federal support to ensure critical life-saving assistance and incident containment capabilities are in place to respond quickly and efficiently to catastrophic incidents. These are high-impact, low-probability incidents, including natural disasters and terrorist attacks that result in extraordinary levels of mass casualties, damage, or disruption severely affecting the population, infrastructure, environment, economy, national morale, and/or government functions.

Multi-Agency Coordination Structures

The National Response Framework establishes multi-agency coordinating structures at the field, regional and headquarters levels. These structures:

- Enable the execution of the responsibilities of the President through the appropriate Federal department and agencies;
- Integrate Federal, State, local, tribal, non-governmental organization, and private-sector efforts; and
- Provide a national capability that addresses both site-specific incident management activities and broader regional or national issues, such as impacts to the rest of the country, immediate regional or national actions required to avert or prepare for potential subsequent events, and the management of multiple incidents.

New Coordinating Mechanisms Include

Homeland Security Operations Center (HSOC)

The HSOC serves as the primary national-level multi-agency situational awareness and operational coordination center. The HSOC includes elements of the Department of Homeland Security and other Federal departments and agencies.

- *National Response Coordination Center (NRCC)*

The NRCC, a functional component of the HSOC, is a multi-agency center that provides overall Federal response coordination.

- *Regional Response Coordination Center (RRCC)*

The NRCC, a functional component of the HSOC, is a multi-agency center that provides overall Federal response coordination.

At the regional level, the RRCC coordinates regional response efforts and implements local Federal program support until a Joint Field Office is established

Interagency Incident Management Group (IIMG)

A tailored group of senior level Federal interagency representatives who provide strategic advice to the Secretary of Homeland Security during an actual or potential Incident of National Significance.

Joint Field Office (JFO)

A temporary Federal facility established locally to provide a central point for Federal, State, local, and tribal representatives with responsibility for incident support and coordination.

Principal Federal Official (PFO)

A PFO may be designated by the Secretary of Homeland Security during a potential or actual Incident of National Significance. While individual Federal officials retain their authorities pertaining to specific aspects of incident management, the PFO works in conjunction with these officials to coordinate overall Federal incident management efforts.

National Contingency Plan

In 1968, the National Oil and Hazardous Substance Pollution Contingency Plan (NCP) was established to coordinate Federal activities for preventing oil spills and mitigating environmental damages when spills occur. During June 1970, this plan was incorporated as part of the Code of Federal Regulations and applied to all navigable waters and adjoining shorelines of the United States. The plan was recently modified (September 1994) to implement changes made to the Clean Water Act by the Oil Pollution Act of 1990.

To ensure adequate preplanning and provisions for responding to oil spills, the National Contingency Plan established the National Response Center, the National Response Team, the Regional Response Center, Regional Response Teams and the On-Scene Coordinator (Figure 4.1).

National Response Team (NRT)

National planning and coordination for oil spill response is the responsibility of the National Response Team (NRT). The NRT is responsible for evaluating methods for responding to oil spills and hazardous substances spills, and recommending changes to the National Contingency Plan. The NRT also develops procedures to coordinate activities for Federal, State and local governments, and private response organizations.

The NRT consists of representatives from each of the agencies shown in Figure 4.2. Normally, the NRT is chaired by the EPA representative while the USCG representative serves as the Vice-Chairman. If it is activated for spills within the coastal zone of the United States, the USCG representative will hold the Chair.

The NRT can be activated when an oil spill exceeds the capability of the Regional Response Team in which it occurs, crosses national boundaries, or presents a significant threat to a population, national policy, property, or national resources; or when requested by any NRT member.

Once activated, the NRT may:

1. Monitor the spill, evaluate reports from the On-Scene Coordinator (OSC), and recommend appropriate actions for abating the spill.
2. Request oil spill response resources from Federal, State and local governments or private agencies.
3. Coordinate the supply of equipment, personnel, or technical advice to the affected region from other regions or districts.
4. Since the NCP is a regulation subject to notice and comment requirements, modifications will require future rulemaking not available at this time.

**FIGURE 4.1
RESPONSE ORGANIZATION**

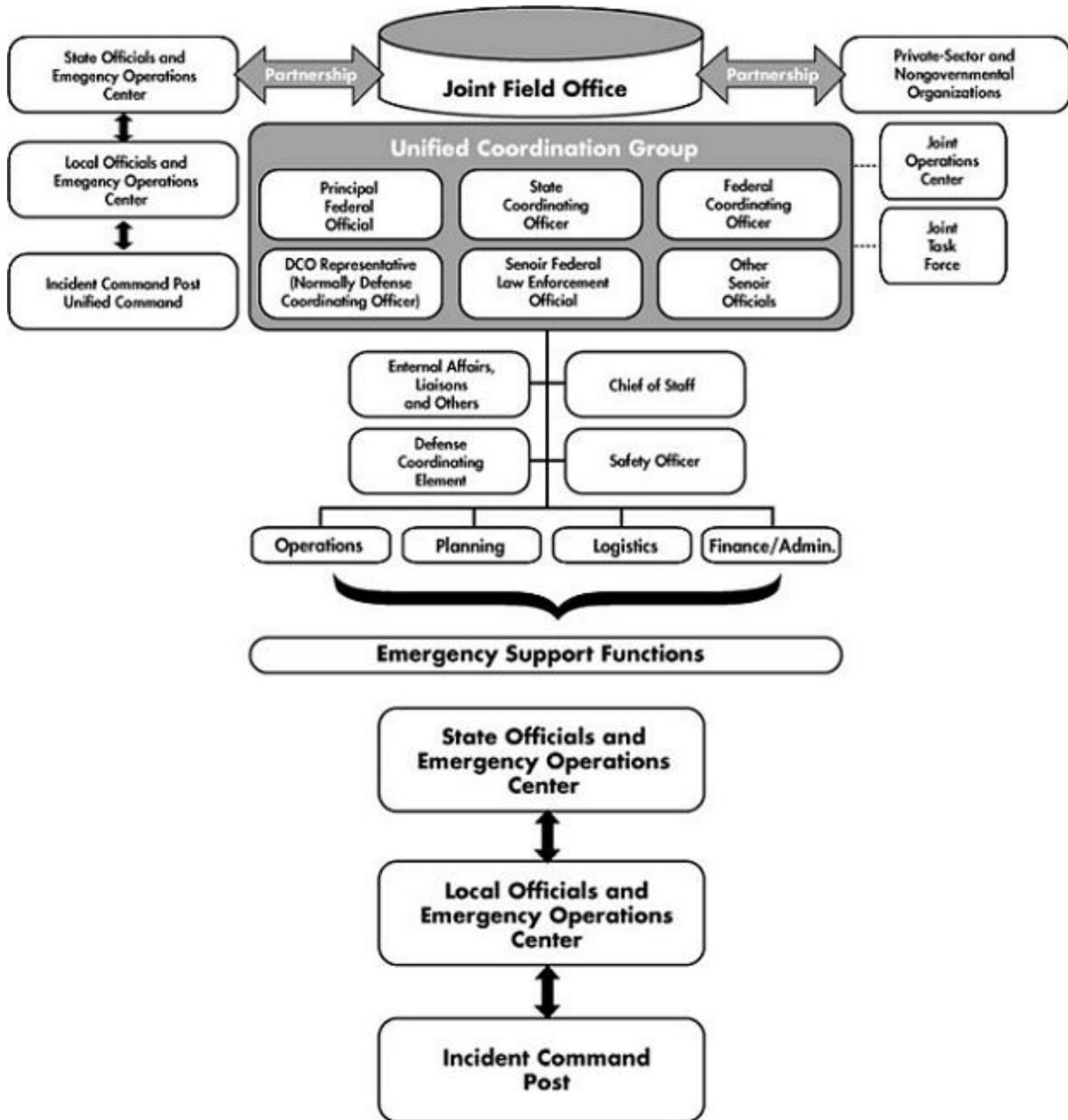


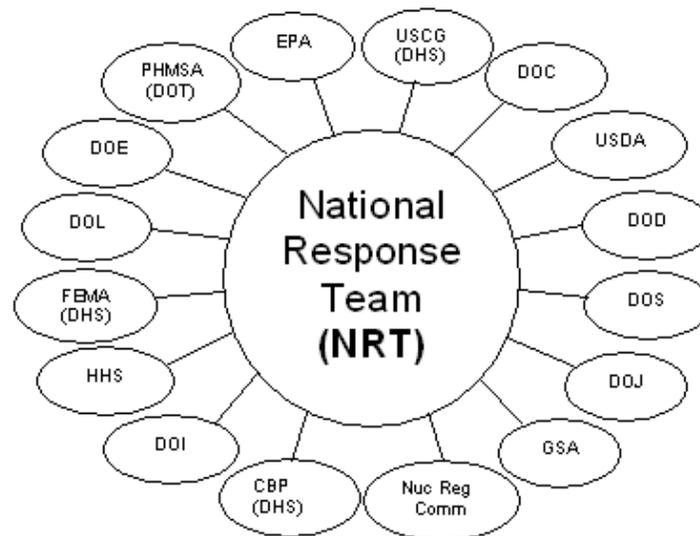
FIGURE 4.2**FEDERAL REPRESENTATION ON NATIONAL RESPONSE TEAM**

FIGURE 4.3

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) REGIONAL OFFICES

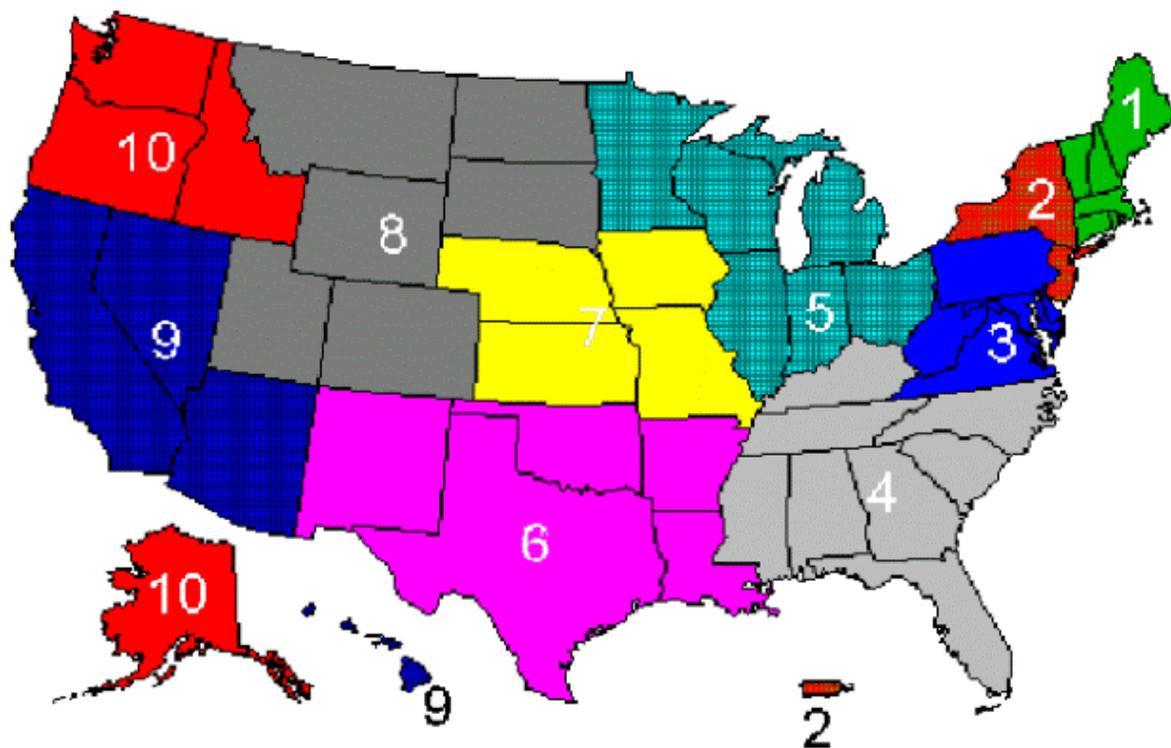


FIGURE 4.4
U.S. COAST GUARD (USCG) DISTRICTS

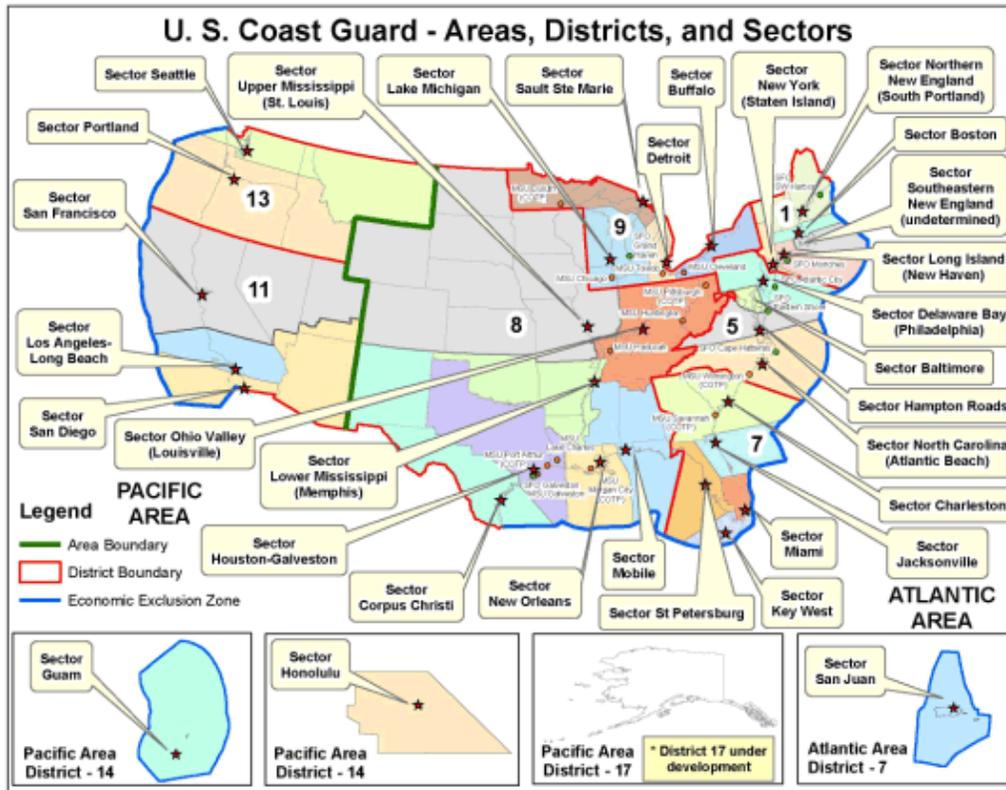


FIGURE 4.5
INCIDENT MANAGEMENT TEAM - COMMAND STRUCTURE

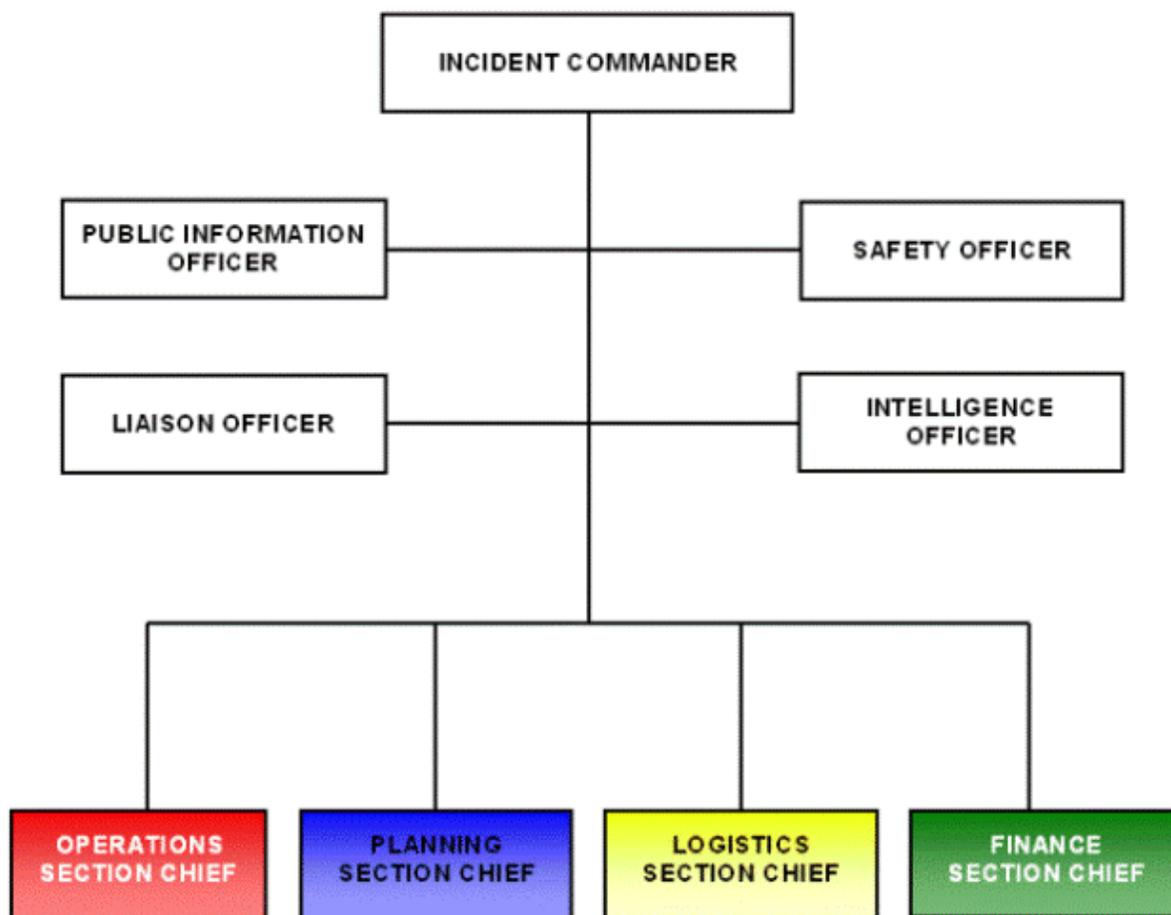


FIGURE 4.6**ICS ROLES AND RESPONSIBILITIES****COMMON RESPONSIBILITIES**

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
 - Job assignment
 - Resource order number and request number
 - Reporting location
 - Reporting time
 - Travel instructions
 - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety, and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

COMMAND

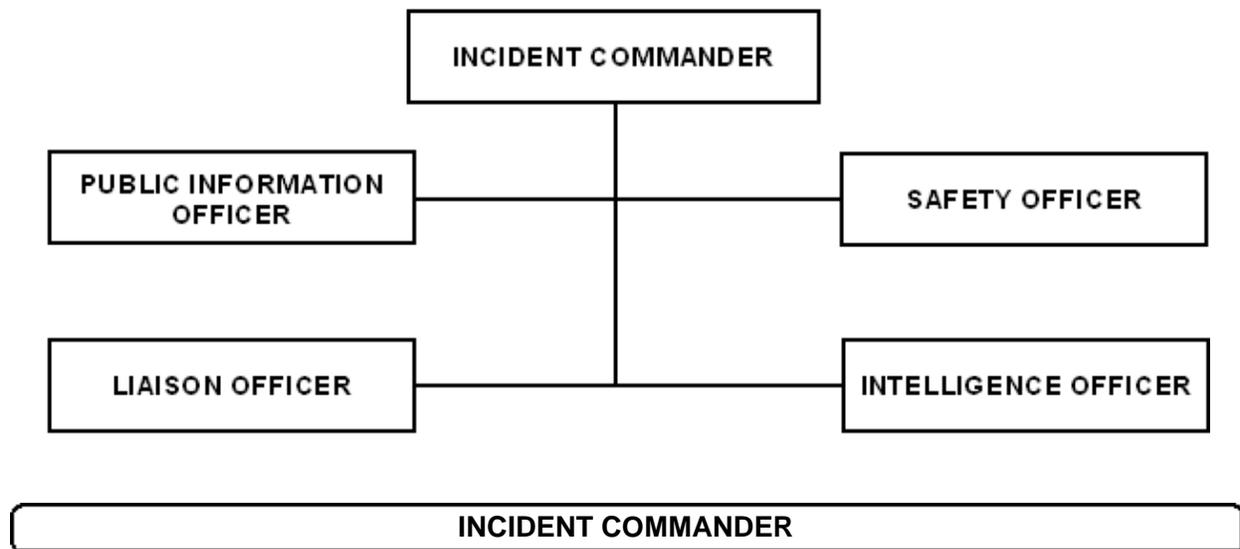
Incident Commander

Public Information Officer

Liaison Officer

Safety Officer

Intelligence Officer



- Assess the situation and/or obtain a briefing from the prior IC.
- Determine Incident Objectives and strategy.
- Establish the immediate priorities.
- Establish an ICP.
- Brief Command Staff and Section Chiefs.
- Review meetings and briefings.
- Establish an appropriate organization.
- Ensure planning meetings are scheduled as required.
- Approve and authorize the implementation of an IAP.
- Ensure that adequate safety measures are in place.
- Coordinate activity for all Command and General Staff.
- Coordinate with key people and officials.
- Approve requests for additional resources or for the release of resources.
- Keep agency administrator informed of incident status.
- Approve the use of trainees, volunteers, and auxiliary personnel.
- Authorize release of information to the news media.
- Ensure incident Status Summary (ICS Form 209) is completed and forwarded to appropriate higher authority.
- Order the demobilization of the incident when appropriate.

PUBLIC INFORMATION OFFICER

- Determine from the IC if there are any limits on information release.
- Develop material for use in media briefings.
- Obtain IC approval of media releases.
- Inform media and conduct media briefings.
- Arrange for tours and other interviews or briefings that may be required.
- Obtain media information that may be useful to incident planning.
- Maintain current information summaries and/or displays on the incident and provide information on the status of the incident to assigned personnel.

LIAISON OFFICER

- Be a contact point for Agency Representatives.
- Maintain a list of assisting and cooperating agencies and agency representatives. Monitor check-in sheets daily to ensure that all agency representatives are identified.
- Assist in establishing and coordinating interagency contacts.
- Keep agencies supporting the incident aware of incident status.
- Monitor incident operations to identify current or potential inter-organizational problems.
- Participate in planning meetings, providing current resource status, including limitations and capability of assisting agency resources.
- Coordinate response resource needs for Natural Resource Damage Assessment and Restoration (NRDAR) activities with the OPS during oil and HAZMAT responses.
- Coordinate response resource needs for incident investigation activities with the OPS.
- Ensure that all required agency forms, reports, and documents are completed prior to demobilization.
- Coordinate activities of visiting dignitaries.

SAFETY OFFICER

- Participate in planning meetings.
- Identify hazardous situations associated with the incident.
- Review the IAP for safety implications.
- Exercise emergency authority to stop and prevent unsafe acts.
- Investigate accidents that have occurred within the incident area.
- Review and approve the Medical Plan.
- Develop the Site Safety Plan and publish Site Safety Plan summary (ICS Form 208) as required.

INTELLIGENCE OFFICER

- Participate in meetings and briefings as required.
- Collect and analyze incoming intelligence information from all sources.
- Determine the applicability, significance, and reliability of incoming intelligence information.
- As requested, provide intelligence briefings to the IC/UC.
- Review the IAP for intelligence implications.
- Answer intelligence questions and advise Command and General Staff as appropriate.
- Supervise, coordinate, and participate in the collection, analysis, processing, and dissemination of intelligence.
- Establish liaison with all participating law enforcement agencies including the CGIS, FBI/JTTF, State and local police departments.
- Prepare all required intelligence reports and plans.
- Ensure that all required agency forms, reports and documents are completed prior to demobilization.

OPERATIONS

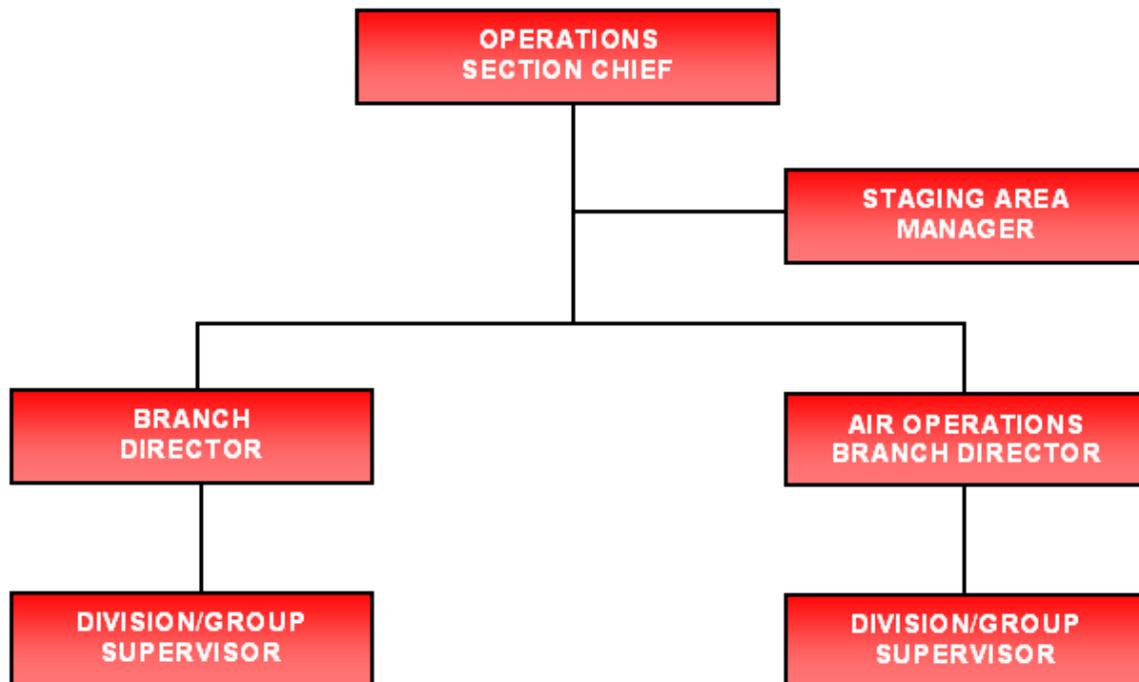
Operations Section Chief

Branch Director

Division/Group Supervisor

Staging Area Manager

Air Operations Branch Director



OPERATIONS SECTION CHIEF

- Develop operations portion of IAP.
- Brief and assign Operations Section personnel in accordance with the IAP.
- Supervise Operations Section.
- Determine need and request additional resources.
- Review suggested list of resources to be released and initiate recommendation for release of resources.
- Assemble and disassemble strike teams assigned to the Operations Section.
- Report information about special activities, events, and occurrences to the IC.
- Respond to resource requests in support of NRDAR activities.

BRANCH DIRECTOR

- Develop with subordinates alternatives for Branch control operations.
- Attend planning meetings at the request of the OPS.
- Review Division/Group Assignment Lists (ICS Form 204) for Divisions/Groups within the Branch. Modify lists based on effectiveness of current operations.
- Assign specific work tasks to Division/Group Supervisors.
- Supervise Branch operations.
- Resolve logistic problems reported by subordinates.
- Report to OPS when: the IAP is to be modified; additional resources are needed; surplus resources are available; or hazardous situations or significant events occur.
- Approve accident and medical reports originating within the Branch.

DIVISION/GROUP SUPERVISOR

- Implement IAP for Division/Group.
- Provide the IAP to Strike Team Leaders, when available.
- Identify increments assigned to the Division/Group.
- Review Division/Group assignments and incident activities with subordinates and assign tasks.
- Ensure that the IC and/or Resources Unit are advised of all changes in the status of resources assigned to the Division/Group.
- Coordinate activities with adjacent Division/Group.
- Determine need for assistance on assigned tasks.
- Submit situation and resources status information to the Branch Director or the OPS.
- Report hazardous situations, special occurrences, or significant events (e.g., accidents, sickness, discovery of unanticipated sensitive resources) to the immediate supervisor.
- Ensure that assigned personnel and equipment get to and from assignments in a timely and orderly manner.
- Resolve logistics problems within the Division/Group.
- Participate in the development of Branch plans for the next operational period.

STAGING AREA MANAGER

- Establish Staging Area layout.
- Determine any support needs for equipment, feeding, sanitation and security.
- Establish check-in function as appropriate.
- Post areas for identification and traffic control.
- Request maintenance service for equipment at Staging Area as appropriate.
- Respond to request for resource assignments
- Obtain and issue receipts for radio equipment and other supplies distributed and received at Staging Area.
- Determine required resource levels from the OPS.
- Advise the OPS when reserve levels reach minimums.
- Maintain and provide status to Resource Unit of all resources in Staging Area.
- Demobilize Staging Area in accordance with the Incident Demobilization Plan.

AIR OPERATIONS BRANCH DIRECTOR

- Organize preliminary air operations.
- Request declaration (or cancellation) of restricted air space
- Participate in preparation of the IAP through the OPS. Ensure that the air operations portion of the IAP takes into consideration the Air Traffic Control requirements of assigned aircraft.
- Perform operational planning for air operations.
- Prepare and provide Air Operations Summary Worksheet (ICS Form 220) to the Air Support Group and Fixed-Wing Bases.
- Determine coordination procedures for use by air organization with ground Branches, Divisions, or Groups.
- Coordinate with appropriate Operations Section personnel.
- Supervise all air operations activities associated with the incident.
- Evaluate helibase locations.
- Establish procedures for emergency reassignment of aircraft.
- Schedule approved flights of non-incident aircraft in the restricted air space area.
- Coordinate with the Operations Coordination Center (OCC) through normal channels on incident air operations activities.
- Inform the Air Emergency Group Supervisor of the air traffic situation external to the incident.
- Consider requests for non-emergency use of incident aircraft.
- Resolve conflicts concerning non-incident aircraft.
- Coordinate with FAA.
- Update air operations plans.
- Report to the OPS on air operations activities.
- Report special incidents/accidents.
- Arrange for an accident investigation team when warranted.

PLANNING

Planning Section Chief

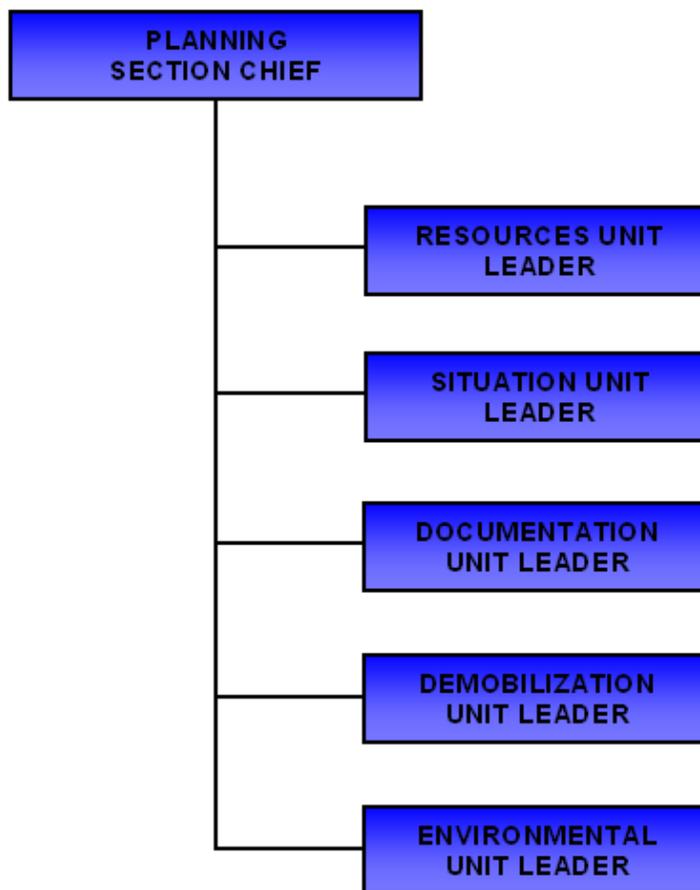
Resources Unit Leader

Situation Unit Leader

Documentation Unit Leader

Demobilization Unit Leader

Environmental Unit Leader



PLANNING SECTION CHIEF

- Collect and process situation information about the incident.
- Supervise preparation of the IAP.
- Provide input to the IC and the OPS in preparing the IAP.
- Chair planning meetings and participate in other meetings as required.
- Reassign out-of-service personnel already on-site to ICS organizational positions as appropriate.
- Establish information requirements and reporting schedules for Planning Section Units (e.g., Resources, Situation Units).
- Determine the need for any specialized resources in support of the incident.
- If requested, assemble and disassemble Strike Teams and Task Forces not assigned to Operations.
- Establish special information collection activities as necessary (e.g., weather, environmental, toxics, etc.).
- Assemble information on alternative strategies.
- Provide periodic predictions on incident potential.
- Report any significant changes in incident status.
- Compile and display incident status information.
- Oversee preparation and implementation of the Incident Demobilization Plan.
- Incorporate plans (e.g., Traffic, Medical, Communications, Site Safety) into the IAP.

RESOURCE UNIT LEADER

- Establish the check-in function at incident locations.
- Prepare Organization Assignment List (ICS Form 203) and Organization Chart (ICS Form 207).
- Prepare appropriate parts of Division Assignment Lists (ICS Form 204).
- Prepare and maintain the ICP display (to include organization chart and resource allocation and deployment).
- Maintain and post the current status and location of all resources.
- Maintain master roster of all resources checked in at the incident.

SITUATION UNIT LEADER

- Begin collection and analysis of incident data as soon as possible.
- Prepare, post, or disseminate resource and situation status information as required, including special requests.
- Prepare periodic predictions or as requested by the PSC.
- Prepare the Incident Status Summary Form (ICS Form 209).
- Provide photographic services and maps if required.

DOCUMENTATION UNIT LEADER

- Set up work area; begin organization of incident files.
- Establish duplication service; respond to requests.
- File all official forms and reports.
- Review records for accuracy and completeness; inform appropriate units of errors or omissions.
- Provide incident documentation as requested.
- Store files for post-incident use.

DEMobilIZATION UNIT LEADER

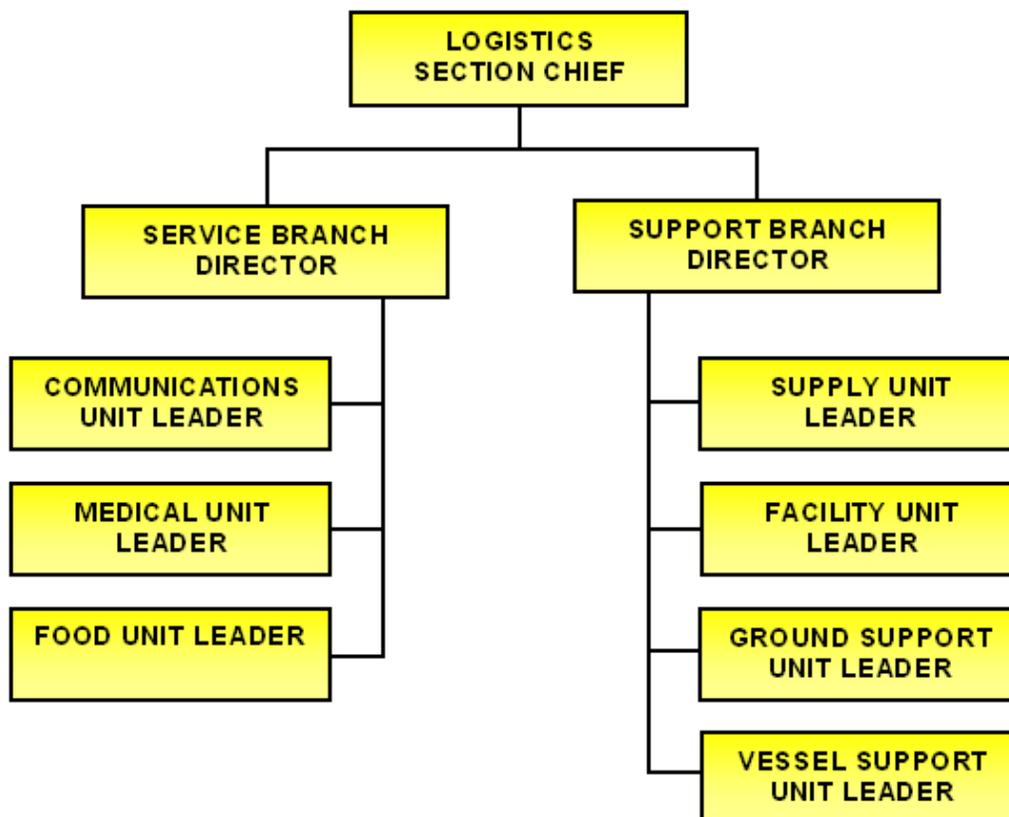
- Participate in planning meetings as required.
- Review incident resource records to determine the likely size and extent of demobilization effort.
- Based on the above analysis, add additional personnel, workspace, and supplies as needed.
- Coordinate demobilization with Agency Representatives.
- Monitor the on-going Operations Section resource needs.
- Identify surplus resources and probable release time.
- Develop incident check-out function for all units.
- Evaluate logistics and transportation capabilities to support demobilization.
- Establish communications with off-incident facilities, as necessary.
- Develop an Incident Demobilization Plan detailing specific responsibilities and release priorities and procedures.
- Prepare appropriate directories (e.g., maps, instructions, etc.) for inclusion in the Demobilization Plan.
- Distribute Demobilization Plan (on and offsite).
- Provide status reports to appropriate requestors.
- Ensure that all Sections/Units understand their specific demobilization responsibilities.
- Supervise execution of the Incident Demobilization Plan.
- Brief the PSC on demobilization progress.

ENVIRONMENTAL UNIT LEADER

- Participate in Planning Section meetings.
- Identify sensitive areas and recommend response priorities.
- Following consultation with natural resource trustees, provide input on wildlife protection strategies (e.g., pre-emptive capture, hazing, and/or capture and treatment).
- Determine the extent, fate, and effects of contamination.
- Acquire, distribute, and provide analysis of weather forecasts.
- Monitor the environmental consequences of cleanup actions.
- Develop shoreline cleanup and assessment plans. Identify the need for, and prepare any special advisories or orders.
- Identify the need for, and obtain, permits, consultations, and other authorizations including Endangered Species Act (ESA) provisions.
- Following consultation with the FOSC's Historical/Cultural Resources Technical Specialist, identify and develop plans for protection of affected historical/cultural resources.
- Evaluate the opportunities to use various response technologies.
- Develop disposal plans.
- Develop a plan for collecting, transporting, and analyzing samples.

LOGISTICS

Logistics Section Chief
Service Branch Director
Communications Unit Leader
Medical Unit Leader
Food Unit Leader
Support Branch Director
Supply Unit Leader
Facility Unit Leader
Ground Support Unit Leader
Vessel Support Unit Leader



LOGISTICS SECTION CHIEF

- Plan the organization of the Logistics Section.
- Assign work locations and preliminary work tasks to Section personnel.
- Notify the Resources Unit of the Logistics Section units activated including names and locations of assigned personnel.
- Assemble and brief Branch Directors and Unit Leaders.
- Participate in preparation of the IAP.
- Identify service and support requirements for planned and expected operations.
- Provide input to and review the Communications Plan, Medical Plan, and Traffic Plan.
- Coordinate and process requests for additional resources.
- Review the IAP and estimate Section needs for the next operational period.
- Advise on current service and support capabilities.
- Prepare service and support elements of the IAP.
- Estimate future service and support requirements.
- Receive Incident Demobilization Plan from Planning Section.
- Recommend release of Unit resources in conformity with Incident Demobilization Plan.
- Ensure the general welfare and safety of Logistics Section personnel.

SERVICE BRANCH DIRECTOR

- Determine the level of service required to support operations.
- Confirm dispatch of Branch personnel.
- Participate in planning meetings of Logistics Section personnel.
- Review the IAP.
- Organize and prepare assignments for Service Branch personnel.
- Coordinate activities of Branch Units.
- Inform the LSC of Branch activities.
- Resolve Service Branch problems.

COMMUNICATIONS UNIT LEADER

- Prepare and implement the Incident Radio Communications Plan (ICS Form 205).
- Ensure the Incident Communications Center and the Message Center is established.
- Establish appropriate communications distribution/maintenance locations within the Base/Camp(s).
- Ensure communications systems are installed and tested.
- Ensure an equipment accountability system is established.
- Ensure personal portable radio equipment from cache is distributed per Incident Radio Communications Plan.
- Provide technical information as required on:
 - Adequacy of communications systems currently in operation.
 - Geographic limitation on communications systems.
 - Equipment capabilities/limitations.
 - Amount and types of equipment available.
 - Anticipated problems in the use of communications equipment.
- Supervise Communications Unit activities.
- Maintain records on all communications equipment as appropriate.
- Ensure equipment is tested and repaired.
- Recover equipment from Units being demobilized.

MEDICAL UNIT LEADER

- Participate in Logistics Section/Service Branch planning activities.
- Prepare the Medical Plan (ICS Form 206).
- Prepare procedures for major medical emergency.
- Declare major emergency as appropriate.
- Respond to requests for medical aid, medical transportation, and medical supplies.
- Prepare and submit necessary documentation.

FOOD UNIT LEADER

- Determine food and water requirements.
- Determine the method of feeding to best fit each facility or situation.
- Obtain necessary equipment and supplies and establish cooking facilities.
- Ensure that well-balanced menus are provided.
- Order sufficient food and potable water from the Supply Unit.
- Maintain an inventory of food and water.
- Maintain food service areas, ensuring that all appropriate health and safety measures are being followed.
- Supervise caterers, cooks, and other Food Unit personnel as appropriate.

SUPPORT BRANCH DIRECTOR

- Determine initial support operations in coordination with the LSC and Service Branch Director.
- Prepare initial organization and assignments for support operations.
- Assemble and brief Support Branch personnel.
- Determine if assigned Branch resources are sufficient.
- Maintain surveillance of assigned units work progress and inform the LSC of their activities.
- Resolve problems associated with requests from the Operations Section.

SUPPLY UNIT LEADER

- Participate in Logistics Section/Support Branch planning activities.
- Determine the type and amount of supplies enroute.
- Review the IAP for information on operations of the Supply Unit.
- Develop and implement safety and security requirements.
- Order, receive, distribute and store supplies, and equipment.
- Receive and respond to requests for personnel, supplies, and equipment.
- Maintain an inventory of supplies and equipment.
- Service reusable equipment.
- Submit reports to the Support Branch Director.

FACILITY UNIT LEADER

- Review the IAP.
- Participate in Logistics Section/Support Branch planning activities.
- Determine requirements for each facility, including the ICP.
- Prepare layouts of incident facilities.
- Notify Unit Leaders of facility layout.
- Activate incident facilities.
- Provide Base and Camp Managers and personnel to operate facilities.
- Provide sleeping facilities.
- Provide security services.
- Provide facility maintenance services (e.g., sanitation, lighting, cleanup).
- Demobilize Base and Camp facilities.
- Maintain facility records

GROUND SUPPORT UNIT LEADER

- Participate in Support Branch/Logistics Section planning activities.
- Develop and implement the Traffic Plan.
- Support out-of-service resources.
- Notify the Resources Unit of all status changes on support and transportation vehicles.
- Arrange for and activate fueling, maintenance, and repair of ground resources.
- Maintain Support Vehicle Inventory and transportation vehicles (ICS Form 218).
- Provide transportation services, IAW requests from the LSC or Support Branch Director.
- Collect information on rented equipment.
- Requisition maintenance and repair supplies (e.g., fuel, spare parts, etc.).
- Maintain incident roads.
- Submit reports to Support Branch Director as directed.

VESSEL SUPPORT UNIT LEADER

- Participate in Support Branch/Logistics Section planning activities.
- Coordinate development of the Vessel Routing Plan.
- Coordinate vessel transportation assignments with the Protection and Recovery Branch or other sources of vessel transportation.
- Coordinate water-to-land transportation with the Ground Support Unit, as necessary.
- Maintain a prioritized list of transportation requirements that need to be scheduled with the transportation source.
- Support out-of-service vessel resources, as requested.
- Arrange for fueling, dockage, maintenance, and repair of vessel resources, as requested.
- Maintain inventory of support and transportation vessels.

FINANCE/ADMINISTRATION

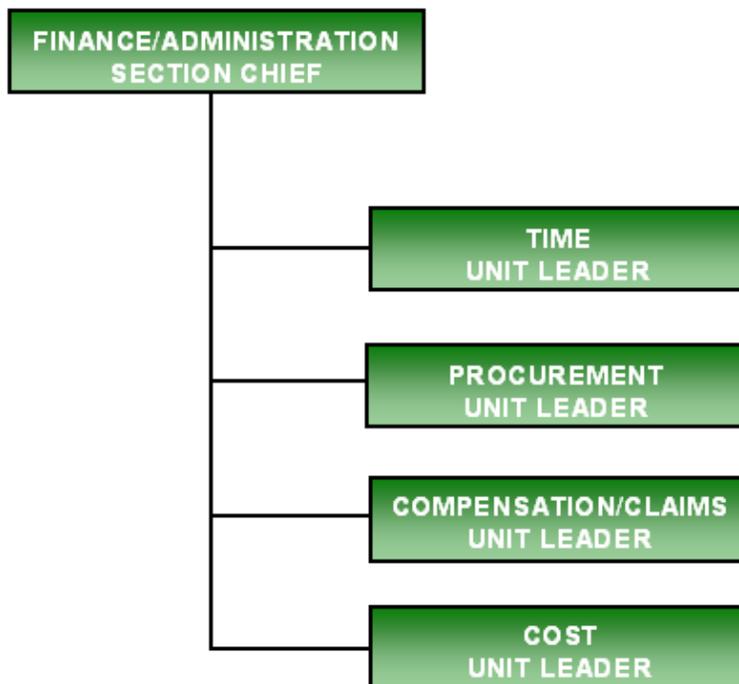
Finance/Administration Section Chief

Time Unit Leader

Procurement Unit Leader

Compensation/Claims Unit Leader

Cost Unit Leader



FINANCE / ADMINISTRATION SECTION CHIEF

- Attend planning meetings as required.
- Manage all financial aspects of an incident.
- Provide financial and cost analysis information as requested.
- Gather pertinent information from briefings with responsible agencies.
- Develop an operating plan for the Finance/Administration Section; fill supply and support needs.
- Determine the need to set up and operate an incident commissary.
- Meet with assisting and cooperating agency representatives as needed.
- Maintain daily contact with agency(s) administrative headquarters on Finance/Administration matters.
- Ensure that all personnel time records are accurately completed and transmitted, according to policy.
- Provide financial input to demobilization planning.
- Ensure that all obligation documents initiated at the incident are properly prepared and completed.
- Brief administrative personnel on all incident-related financial issues needing attention or follow-up prior to leaving incident.

TIME UNIT LEADER

- Determine incident requirements for time recording function.
- Determine resource needs.
- Contact appropriate agency personnel/representatives.
- Ensure that daily personnel time recording documents are prepared and in compliance with policy.
- Establish time unit objectives.
- Maintain separate logs for overtime hours.
- Establish commissary operation on larger or long-term incidents as needed.
- Submit cost estimate data forms to the Cost Unit, as required.
- Maintain records security.
- Ensure that all records are current and complete prior to demobilization.
- Release time reports from assisting agency personnel to the respective agency representatives prior to demobilization.
- Brief the Finance/Administration Section Chief on current problems and recommendations, outstanding issues, and follow-up requirements.

PROCUREMENT UNIT LEADER

- Review incident needs and any special procedures with Unit Leaders, as needed.
- Coordinate with local jurisdiction on plans and supply sources.
- Obtain the Incident Procurement Plan.
- Prepare and authorize contracts and land-use agreements.
- Draft memoranda of understanding as necessary.
- Establish contracts and agreements with supply vendors.
- Provide for coordination between the Ordering Manager, agency dispatch, and all other procurement organizations supporting the incident.
- Ensure that a system is in place that meets agency property management requirements. Ensure proper accounting for all new property.
- Interpret contracts and agreements; resolve disputes within delegated authority.
- Coordinate with the Compensation/Claims Unit for processing claims.
- Coordinate use of impress funds, as required.
- Complete final processing of contracts and send documents for payment.
- Coordinate cost data in contracts with the Cost Unit Leader.
- Brief the Finance/Administration Section Chief on current problems and recommendations, outstanding issues, and follow-up requirements.

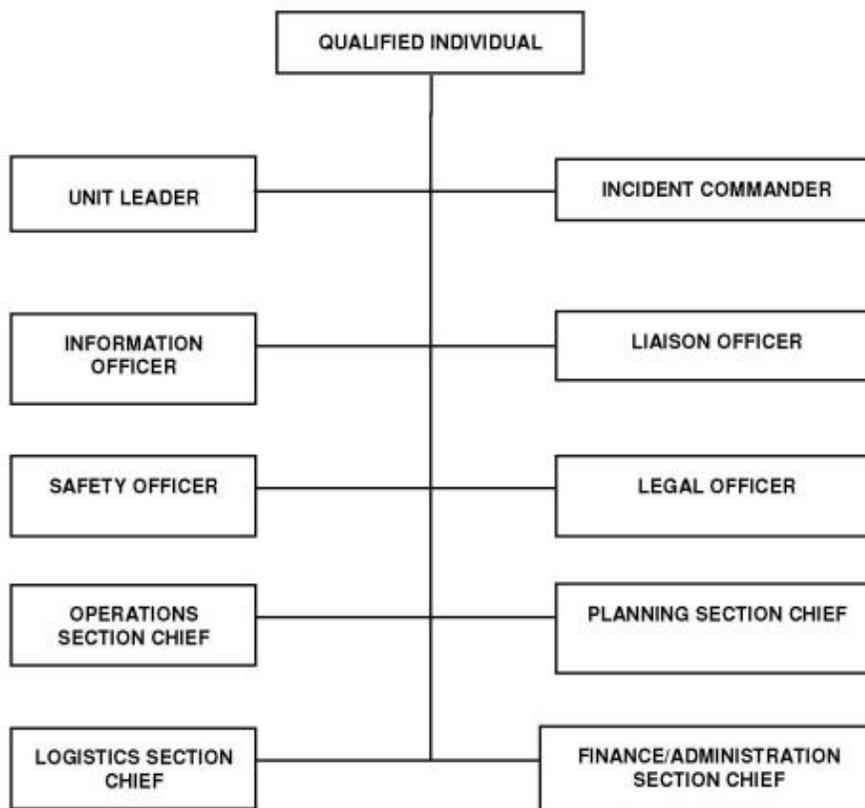
COMPENSATION / CLAIMS UNIT LEADER

- Establish contact with the incident Safety Officer (SO) and Liaison Officer (LO) (or agency representatives if no LO is assigned).
- Determine the need for Compensation for Injury and Claims Specialists and order personnel as needed.
- Establish a Compensation for Injury work area within or as close as possible to the Medical Unit.
- Review Incident Medical Plan (ICS Form 206).
- Ensure that Compensation/Claims Specialists have adequate workspace and supplies.
- Review and coordinate procedures for handling claims with the Procurement Unit.
- Brief the Compensation/Claims Specialists on incident activity.
- Periodically review logs and forms produced by the Compensation/Claims Specialists to ensure that they are complete, entries are timely and accurate, and that they are in compliance with agency requirements and policies.
- Ensure that all Compensation for Injury and Claims logs and forms are complete and routed appropriately for post-incident processing prior to demobilization.
- Keep the Finance/Administration Section Chief briefed on Unit status and activity.
- Demobilize unit in accordance with the Incident Demobilization Plan.

COST UNIT LEADER

- Coordinate cost reporting procedures.
- Collect and record all cost data.
- Develop incident cost summaries.
- Prepare resources-use cost estimates for the Planning Section.
- Make cost-saving recommendations to the Finance/Administration Section Chief.
- Ensure all cost documents are accurately prepared.
- Maintain cumulative incident cost records.
- Complete all records prior to demobilization.
- Provide reports to the Finance/Administration Section Chief.

FIGURE 4.7
FACILITY SPECIFIC INCIDENT MANAGEMENT



Qualified Individual

- Activate internal alarms and hazard communication systems to notify all Facility personnel.
- Notify all response personnel, as needed.
- Identify the character, exact source, amount, and extent of the release, as well as the other items needed for notification.
- Notify and provide necessary information to the appropriate federal, state, and local authorities with designated response roles, including the National Response Center (NRC), State Emergency Response Commission (SERC), and local response agencies.
- Serve as liaison with the On-Scene Coordinator.
- Assess the interaction of the spilled substance with water and/or other substances stored at the Facility and notify response personnel at the scene of that assessment.
- Assess the possible hazards to human health and the environment due to the release. This assessment must consider both the direct and indirect effects of the release (i.e., the effects of any toxic, irritating, or asphyxiating gases that may be generated, or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and heat-induced explosion).
- Assess and implement prompt removal actions to contain and remove the substance released.
- Coordinate rescue and response actions as previously arranged with all response personnel.
- Access Company funding to initiate clean-up activities.
- Direct clean-up activities until properly relieved of this responsibility.

Arrangements will be made between the QI and the Alternate Qualified Individual (AQI) to ensure that either one or the other is available on a 24-hour basis and is able to arrive at the Facility in a reasonable amount of time. The AQI shall replace the QI in the event of his absence and have the same responsibilities and authority.

Common ICS Responsibilities

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
 - Job assignment
 - Resource order number and request number
 - Reporting location
 - Reporting Time
 - Travel instructions
 - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records.
- Respond to demobilization orders and brief subordinates regarding demobilization.

Unit Leader Responsibilities

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records.

Incident Commander

- Assess the situation and/or obtain a briefing from the prior IC.
- Determine Incident Objectives and strategy.
 - Keep the public informed of response activities.
 - Manage a coordinated response effort.
 - Maximize protection of environmentally sensitive areas.
 - Contain and recover spilled material.
 - Recover and rehabilitate injured wildlife.
 - Remove oil from impacted areas.
 - Minimize economic impacts.
 - Keep stakeholders informed of response activities.
- Establish the immediate priorities.
 - Ensure the safety of citizens and response personnel.
 - Control the source of the spill.
- Establish an Incident Command Post (ICP).
- Brief Command Staff and Section Chiefs.
- Review meetings and briefings.
- Establish an appropriate organization.
- Ensure planning meetings are scheduled as required.
- Approve and authorize the implementation of an Incident Action Plan (IAP).
- Ensure that adequate safety measures are in place.
- Coordinate activity for all Command and General Staff.
- Coordinate with key people and officials.
- Approve requests for additional resources or for the release of resources.
- Keep Company administrator(s) informed of incident status.
- Approve the use of trainees, volunteers, and auxiliary personnel.
- Authorize release of information to the news media.
- Ensure incident Status Summary is completed and forwarded to appropriate higher authority.
- Order the demobilization of the incident when appropriate.

Information Officer

- Determine from the IC if there are any limits on information release.
- Develop material for use in media briefings.
- Obtain IC approval of media releases.
- Inform media and conduct media briefings.
- Arrange for tours and other interviews or briefings that may be required.
- Obtain media information that may be useful to incident planning.
- Maintain current information summaries and/or displays on the incident and provide information on the status of the incident to assigned personnel.

Liaison Officer

- Be a contact point for agency representatives.
- Maintain a list of assisting and cooperating agencies and agency representatives. Monitor check-in sheets daily to ensure that all agency representatives are identified.
- Assist in establishing and coordinating interagency contacts.
- Keep agencies supporting the incident aware of incident status.
- Monitor incident operations to identify current or potential inter-organizational problems.
- Participate in planning meetings, providing current resource status, including limitations and capability of assisting agency resources.
- Coordinate response resource needs for Natural Resource Damage Assessment and NRDAR activities with the Operations Section during oil and HAZMAT responses.
- Coordinate response resource needs for incident investigation activities with the Operations Section.
- Ensure that all required agency forms, reports and documents are completed prior to demobilization.
- Have debriefing session with IC prior to departure.
- Coordinate activities of visiting dignitaries.

Safety Officer

- Participate in planning meetings.
- Identify hazardous situations associated with the incident.
- Review the IAP for safety implications.
- Exercise emergency authority to stop and prevent unsafe acts.
- Investigate accidents that have occurred within the incident area.
- Assign assistants, as needed.
- Review and approve the medical plan.
- Develop the Site Safety Plan and publish Site Safety Plan summary (Figure 5.14) as required.

Legal Officer

- Participate in planning meetings, if requested.
- Advise on legal issues relating to in-situ burning, use of dispersants, and other alternative response technologies.
- Advise on legal issues relating to differences between NRDAR and response activities.
- Advise on legal issues relating to investigations.
- Advise on legal issues relating to finance and claims.
- Advise on legal issues relating to response.

Operations Section Chief

- Develop operations portion of IAP.
- Brief and assign Operations Section personnel in accordance with the IAP.
- Attend planning meetings.
- Supervise Operations Section.
- Determine need for and request additional resources.
- Review suggested list of resources to be released and initiate recommendation for release of resources.
- Assemble and disassemble Strike Teams assigned to the Operations Section.
- Report information about special activities, events, and occurrences to the IC.
- Respond to resource requests in support of NRDAR activities.
- Resolve logistic problems reported by subordinates.
- Approve accident and medical reports originating within the Branch.

Planning Section Chief

- Collect and process situation information about the incident.
- Supervise preparation of the IAP.
- Provide input to the IC and the Operations Section in preparing the IAP.
- Chair planning meetings and participate in other meetings as required.
- Reassign out-of-service personnel already on-site to ICS organizational positions as appropriate.
- Establish information requirements and reporting schedules for Planning Section Units (e.g., Resources, Situation Units).
- Determine the need for any specialized resources in support of the incident.
- If requested, assemble and disassemble Strike Teams and Task Forces not assigned to Operations.
- Establish special information collection activities as necessary (e.g., weather, environmental, toxics, etc.).
- Assemble information on alternative strategies.
- Provide periodic predictions on incident potential.
- Report any significant changes in incident status.
- Compile and display incident status information.
- Oversee preparation and implementation of the Incident Demobilization Plan.
- Incorporate plans (e.g., Traffic, Medical, Communications, Site Safety) into the IAP.

Logistics Section Chief

- Plan the organization of the Logistics Section.
- Assign work locations and preliminary work tasks to Section personnel.
- Notify the Resources Unit of the Logistics Section units activated including names and locations of assigned personnel.
- Assemble and brief Branch Directors and Unit Leaders.
- Participate in preparation of the IAP.
- Identify service and support requirements for planned and expected operations.
- Provide input to and review the Communications Plan, Medical Plan and Traffic Plan.
- Coordinate and process requests for additional resources.
- Review the IAP and estimate Section needs for the next operational period.
- Advise on current service and support capabilities.
- Prepare service and support elements of the IAP.
- Estimate future service and support requirements.
- Receive Incident Demobilization Plan from Planning Section.
- Recommend release of Unit resources in conformity with Incident Demobilization Plan.
- Ensure the general welfare and safety of Logistics Section personnel.

Finance/Administration Section Chief

- Attend planning meetings, as required.
- Manage all financial aspects of an incident.
- Provide financial and cost analysis information, as requested.
- Gather pertinent information from briefings with responsible agencies.
- Develop an operating plan for the Finance/Administration Section; fill supply and support needs.
- Determine the need to set up and operate an incident commissary.
- Meet with assisting and cooperating agency representatives, as needed.
- Maintain daily contact with Company administrative headquarters on finance/ administration matters.
- Ensure that all personnel time records are accurately completed and transmitted, according to policy.
- Provide financial input to demobilization planning.
- Ensure that all obligation documents initiated at the incident are properly prepared and completed.
- Brief administrative personnel on all incident-related financial issues needing attention or follow-up prior to leaving incident.



5.0 RESPONSE PLANNING

5.1 [Incident Action Plan](#)

5.2 [Planning P](#)

5.3 [Site Safety Plan](#)

Figure 5.1 [Incident Briefing](#)

Figure 5.2 [ICS IAP Cover](#)

Figure 5.3 [Incident Objectives](#)

Figure 5.4 [Organization Assignment List](#)

Figure 5.5 [Assignment List](#)

Figure 5.6 [Incident Radio Communications Plan](#)

Figure 5.7 [Medical Plan](#)

Figure 5.8 [Unit Log](#)

Figure 5.9 [Resources at Risk Summary](#)

Figure 5.10 [Site Safety Plan](#)

5.1 INCIDENT ACTION PLAN

Emergency response activities are planned and coordinated through the use of an Incident Action Plan (IAP) which is developed for each Operational Period of a response by the Incident Management Team. For small responses, an ICS 201 (Incident Briefing Form provided in Figure 5.1), may be used as the IAP and, for all incidents, the ICS 201 will serve as the initial IAP.

For larger or more complex incidents a more complete IAP will be necessary. These IAPs are generally created through the completion and compilation of several standard ICS forms. These forms include, but are not limited to:

| ICS FORM NUMBER | FORM TITLE | PREPARED BY* | PLAN LOCATION |
|-----------------|------------------------------------|--|---------------|
| 201 | Incident Briefing | Initial Response IC | Figure 5.1 |
| None | ICS IAP Cover | Situation Unit Leader | Figure 5.2 |
| 202 | Incident Objectives | Planning Section Chief | Figure 5.3 |
| 203 | Organization Assignment List | Resources Unit Leader | Figure 5.4 |
| 204 | Assignment List | Operations Section Chief & Resources Unit Leader | Figure 5.5 |
| 205 | Incident Radio Communications Plan | Communications Unit Leader | Figure 5.6 |
| 206 | Medical Plan | Medical Unit Leader | Figure 5.7 |
| 214 | Unit Log | All Sections | Figure 5.8 |
| 232 | Resources at Risk Summary | Situation Unit Leader | Figure 5.9 |
| SSP | Site Safety Plan | Safety Officer | Figure 5.10 |

* The Planning Section Chief may assign preparation of forms to other personnel on the Incident Management Team if identified position is unassigned or vacant when the IAP is produced.

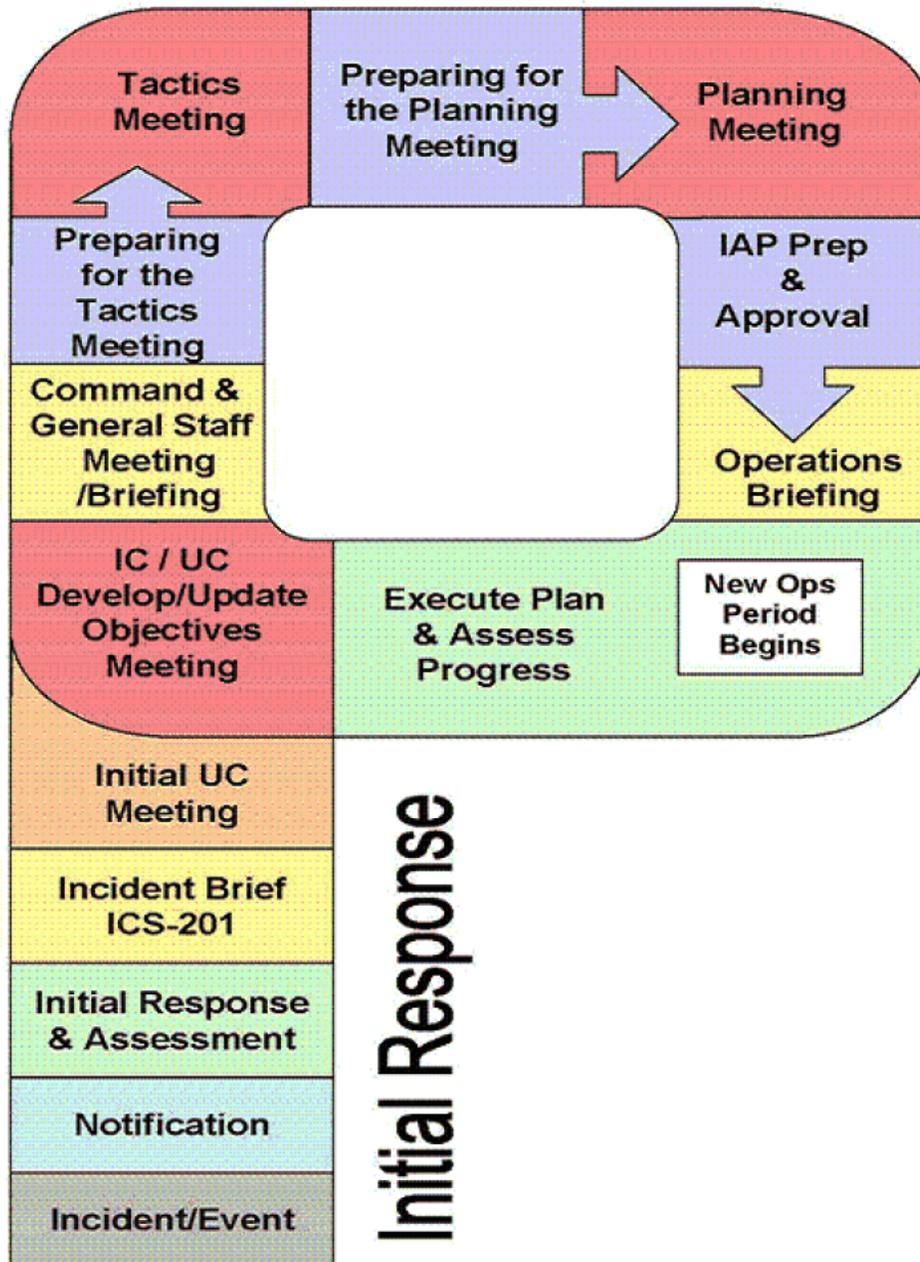
Depending on the nature and severity of the emergency, additional documents may be included in the IAP. These may include:

- Sensitivity Maps (Provided in Appendix G)
- Waste Management & Disposal Plans (Provided in Appendix E)
- Plans for use of Alternative Technologies (Dispersant/In-situ Burn/Bioremediation)
- Security Plans
- Decontamination Plans
- Traffic Plans

5.2 PLANNING P

UNITED STATES COAST GUARD
Operations Period Planning

The Operational Planning "P"



5.3 SITE SAFETY PLAN

Site Safety Plans (SSP) are required by OSHA (29CFR1910.120(b)(4)) for all hazardous waste operations. The SSP should address all on-site operations and hazardous as well as on-site emergency procedures. A template for use in producing an SSP is provided as Figure 5.10.

The SSP is typically prepared by the Safety Officer and approved by the Incident Commander or the Unified Command. All personnel must be familiar with the contents of the SSP and the SSP must be updated as conditions, operations and hazards associated with the response change

NRC Incident No. # _____

| | | |
|---|--|--|
| 1. Incident Name _____ | 2. Prepared by: (name) _____ Date: _____ Time: _____ | INCIDENT BRIEFING ICS 201-CG |
| 6. Current Organization (fill in additional appropriate organization) | | |
| <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 30%;"> <p>Command</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>— Safety Officer _____</p> <p>— Liaison Officer _____</p> <p>— Information Officer _____</p> </div> <div style="width: 60%;"> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="border: 1px solid black; padding: 5px; width: 20%;">Operations Section</div> <div style="border: 1px solid black; padding: 5px; width: 20%;">Planning Section</div> <div style="border: 1px solid black; padding: 5px; width: 20%;">Logistics Section</div> <div style="border: 1px solid black; padding: 5px; width: 20%;">Finance Section</div> </div> | | |
| INCIDENT BRIEFING | | ICS 201-CG (pg 3 of 4) (Rev 4/04) |

FIGURE 5.2

ICS IAP COVER

| 1. Incident Name _____ | 2. Operational Period to be covered by IAP (Date/Time) From: _____ To: _____ | CG IAP COVER SHEET | | | | | | | | | | | | | | | | | | |
|---|--|-------------------------------|-----|------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 3. Approved by Incident Commander (s): <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%; text-align: center; border-bottom: 1px solid black;">ORG</th> <th style="width: 15%; text-align: center; border-bottom: 1px solid black;">NAME</th> <th style="width: 70%;"></th> </tr> </thead> <tbody> <tr><td style="border-bottom: 1px solid black;">_____</td><td style="border-bottom: 1px solid black;">_____</td><td style="border-bottom: 1px solid black;">_____</td></tr> <tr><td style="border-bottom: 1px solid black;">_____</td><td style="border-bottom: 1px solid black;">_____</td><td style="border-bottom: 1px solid black;">_____</td></tr> <tr><td style="border-bottom: 1px solid black;">_____</td><td style="border-bottom: 1px solid black;">_____</td><td style="border-bottom: 1px solid black;">_____</td></tr> <tr><td style="border-bottom: 1px solid black;">_____</td><td style="border-bottom: 1px solid black;">_____</td><td style="border-bottom: 1px solid black;">_____</td></tr> <tr><td style="border-bottom: 1px solid black;">_____</td><td style="border-bottom: 1px solid black;">_____</td><td style="border-bottom: 1px solid black;">_____</td></tr> </tbody> </table> | | | ORG | NAME | | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| ORG | NAME | | | | | | | | | | | | | | | | | | | |
| _____ | _____ | _____ | | | | | | | | | | | | | | | | | | |
| _____ | _____ | _____ | | | | | | | | | | | | | | | | | | |
| _____ | _____ | _____ | | | | | | | | | | | | | | | | | | |
| _____ | _____ | _____ | | | | | | | | | | | | | | | | | | |
| _____ | _____ | _____ | | | | | | | | | | | | | | | | | | |
| <h3 style="margin: 0;">INCIDENT ACTION PLAN</h3> <p style="margin: 5px 0 0 40px;">The items checked below are included in this Incident Action Plan:</p> <ul style="list-style-type: none"> <li style="margin-bottom: 10px;"><input type="checkbox"/> ICS 202-CG (Response Objectives) _____ <li style="margin-bottom: 10px;"><input type="checkbox"/> ICS 203-CG (Organization List) – OR – ICS 207-CG (Organization Chart) _____ <li style="margin-bottom: 10px;"><input type="checkbox"/> ICS 204-CGs (Assignment Lists) One Copy each of any ICS 204-CG attachments: _____ <li style="margin-bottom: 10px;"><input type="checkbox"/> ICS 205-CG (Communications Plan) _____ <li style="margin-bottom: 10px;"><input type="checkbox"/> ICS 206-CG (Medical Plan) <li style="margin-bottom: 10px;"><input type="checkbox"/> ICS 208-CG (Site Safety Plan) or Note SSP Location _____ <li style="margin-bottom: 10px;"><input type="checkbox"/> Map/Chart <li style="margin-bottom: 10px;"><input type="checkbox"/> Weather forecast / Tides/Currents <li style="margin-bottom: 10px;"><u>Other Attachments</u> <li style="margin-bottom: 10px;"><input type="checkbox"/> _____ | | | | | | | | | | | | | | | | | | | | |
| 4. Prepared by: _____ | | Date/Time _____ | | | | | | | | | | | | | | | | | | |

FIGURE 5.3

INCIDENT OBJECTIVES

| | | |
|--|---|---|
| 1. Incident Name [Redacted] | 2. Operational Period (Date/Time) From: [Redacted] To: [Redacted] | INCIDENT OBJECTIVES ICS 202-CG |
| 3. Objective(s) [Redacted] | | |
| 4. Operational Period Command Emphasis (Safety Message, Priorities, Key Decisions/Directions) [Redacted] | | |
| Approved Site Safety Plan Located at: [Redacted] | | |
| 5. Prepared by: (Planning Section Chief) [Redacted] | Date/Time [Redacted] | |

FIGURE 5.5

ASSIGNMENT LIST

| | | | | | |
|--|-----------------------------|---|------------------|--------------------------------------|--------------------------|
| 1. Incident Name _____ | | 2. Operational Period (Date/Time) From: _____ To: _____ | | Assignment List ICS 204-CG | |
| 3. Branch _____ | | 4. Division/Group/Staging _____ | | | |
| 5. Operations Personnel | | | | | |
| Name | | Affiliation | | Contact # (s) | |
| Operations Section Chief: _____ | | | | | |
| Branch Director: _____ | | | | | |
| Division/Group Supervisor/STAM: _____ | | | | | |
| 6. Resources Assigned "X" indicates 204a attachment with additional instructions | | | | | |
| Strike Team/Task Force/Resource Identifier | Leader | Contact Info. # | # Of Persons | Reporting Info/Notes/Remarks | |
| _____ | _____ | _____ | _____ | _____ | <input type="checkbox"/> |
| _____ | _____ | _____ | _____ | _____ | <input type="checkbox"/> |
| _____ | _____ | _____ | _____ | _____ | <input type="checkbox"/> |
| _____ | _____ | _____ | _____ | _____ | <input type="checkbox"/> |
| _____ | _____ | _____ | _____ | _____ | <input type="checkbox"/> |
| _____ | _____ | _____ | _____ | _____ | <input type="checkbox"/> |
| _____ | _____ | _____ | _____ | _____ | <input type="checkbox"/> |
| _____ | _____ | _____ | _____ | _____ | <input type="checkbox"/> |
| _____ | _____ | _____ | _____ | _____ | <input type="checkbox"/> |
| _____ | _____ | _____ | _____ | _____ | <input type="checkbox"/> |
| _____ | _____ | _____ | _____ | _____ | <input type="checkbox"/> |
| 7. Work Assignments _____ | | | | | |
| 8. Special Instructions _____ | | | | | |
| 9. Communications (radio and/or phone contact numbers needed for this assignment) | | | | | |
| Name/Function | Radio: Freq./System/Channel | Phone | Cell/Pager | _____ | |
| _____ | _____ | _____ | _____ | _____ | |
| _____ | _____ | _____ | _____ | _____ | |
| Emergency Communications | | | | | |
| Medical _____ | | Evacuation _____ | | Other _____ | |
| 10. Prepared by: | Date/Time | 11. Reviewed by (PSC): | Date/Time | 12. Reviewed by (OSC): | Date/Time |
| _____ | _____ | _____ | _____ | _____ | _____ |

FIGURE 5.6

INCIDENT RADIO COMMUNICATIONS PLAN

| | | | | | | |
|---|----------------|---|------------------|-------------------|---|--|
| 1. Incident Name █ | | 2. Operational Period (Date / Time) From: █ To: █ | | | INCIDENT RADIO COMMUNICATIONS PLAN ICS 205-CG | |
| 3. BASIC RADIO CHANNEL USE | | | | | | |
| SYSTEM / CACHE | CHANNEL | FUNCTION | FREQUENCY | ASSIGNMENT | REMARKS | |
| █ | █ | █ | █ | █ | █ | |
| █ | █ | █ | █ | █ | █ | |
| █ | █ | █ | █ | █ | █ | |
| █ | █ | █ | █ | █ | █ | |
| █ | █ | █ | █ | █ | █ | |
| █ | █ | █ | █ | █ | █ | |
| █ | █ | █ | █ | █ | █ | |
| █ | █ | █ | █ | █ | █ | |
| █ | █ | █ | █ | █ | █ | |
| 4. Prepared by: (Communications Unit) █ | | | | | Date / Time █ | |
| INCIDENT RADIO COMMUNICATIONS PLAN | | | | | ICS 205-CG (Rev.07/04) | |

FIGURE 5.10

Date: _____

NRC Assigned Number: _____

SITE SAFETY PLAN

Page 1 of 5

| I. General | | | | | | |
|---|---|---|--------------------------------------|--|---|--|
| <input type="checkbox"/> Platform | <input type="checkbox"/> Air | <input type="checkbox"/> Spill to Water | <input type="checkbox"/> Excavation | <input type="checkbox"/> Other: _____ | AFE #: _____ | |
| Facility: Premcor Hammond Terminal | | | | Issuing Date: _____ Time: _____ | | |
| Location: _____ | | | | Temperature: _____ | | |
| Work to be performed: _____ | | | | Wind Direction: _____ | | |
| | | | | Humidity: _____ | | |
| II. Hazards to be Evaluated | | | | | | |
| Y | N | Y | N | Y | N | |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Oxygen Deficient/Enriched |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Ingestion / Skin Absorption |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Flammable Atmosphere (Explosion Fire) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Chemical/MSDS # _____ (Must be attached) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Toxic Atmosphere: _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Physical Hazard _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Boat Operations |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Vapor Cloud |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Confined Space |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Other (see comments) _____ |
| III. Testing & Monitoring (Check required items) | | | | | | |
| <i>Tests are to be performed in the order listed.</i> | | | | | | |
| ACCEPTABLE ENTRY CONDITIONS | | | | | | |
| Y | N | Continuous | Frequency | No Respiratory Protection Needed | Special Work Practices or PPE Required | Leave Area Work Efforts Should Be Directed At Reducing Concentrations |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Y <input type="checkbox"/> N | _____ every _____ | 19.5 - 23.0% in air | <19.5% or 23.0% in air | <16.0 or >23.5% in air |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Y <input type="checkbox"/> N | _____ every _____ | <10% in air | ≥10.0 but <20.0% in air | ≥20.0% in air |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Y <input type="checkbox"/> N | _____ every _____ | <10 ppm | ≥10 but <100 ppm | ≥100 ppm |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Y <input type="checkbox"/> N | _____ every _____ | <.5 ppm | ≥.5 but <10 ppm | ≥10 ppm |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Y <input type="checkbox"/> N | _____ every _____ | <300 ppm | ≥300 but <750 ppm | ≥750 ppm |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Y <input type="checkbox"/> N | _____ every _____ | As allowed by applicable standard(s) Acceptable for 5325 feet of elevation and below. Hot work is not permitted when LEL is greater than 10% in air. | | |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Y <input type="checkbox"/> N | _____ every _____ | | | |
| IV. Required Personal Protective Equipment (PPE) (Check for required use) | | | | | | |
| Genera | Eye Prot. | Respiratory Prot. | Hearing Prot. | Gloves | Footwear | Clothing |
| <input type="checkbox"/> Hard Hat | <input type="checkbox"/> Safety Glasses | <input type="checkbox"/> SCBA/Air Line w/Escapes | <input type="checkbox"/> Ear Plugs | <input type="checkbox"/> Leather | <input type="checkbox"/> Steel-toes | <input type="checkbox"/> F.R. Coveralls |
| <input type="checkbox"/> Safety Harness | <input type="checkbox"/> Goggles | <input type="checkbox"/> Air Line | <input type="checkbox"/> Ear Muffs | <input type="checkbox"/> Rubber | <input type="checkbox"/> Rubber | <input type="checkbox"/> Tyvek |
| <input type="checkbox"/> PFD | <input type="checkbox"/> Face-shield | <input type="checkbox"/> Air Purifying (Full Mask) | <input type="checkbox"/> Combination | <input type="checkbox"/> Nitrile | <input type="checkbox"/> Hip-boots | <input type="checkbox"/> Coated Tyvek |
| | <input type="checkbox"/> Tinted Lens | Cartridge Type: <input type="checkbox"/> OV <input type="checkbox"/> Hepa-OVV | | <input type="checkbox"/> PVC | <input type="checkbox"/> _____ | <input type="checkbox"/> Saranyx |
| | | | | <input type="checkbox"/> _____ | | <input type="checkbox"/> _____ |
| Any other special PPE: _____ | | | | | | |
| V. Emergency Information and Rescue Services | | | | | | |
| Emergency Contact Person: | | | | Contact by: _____ | | |
| Fire Department: 911 | | | | Contact by: _____ | | |
| Ambulance: 911 | | | | Contact by: _____ | | |
| Hospital: 911 | | | | Contact by: _____ | | |
| Rescue Services: 911 | | | | Contact by: _____ | | |
| (if not provided by above) | | | | | | |

Date: _____

NRC Assigned Number: _____

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| X. Control Measures | Zone | | | | | | | | | | | | | | | | | | |
|----------------------------|-------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Oxygen | Time | | | | | | | | | | | | | | | | | | |
| | Level | | | | | | | | | | | | | | | | | | |
| | By | | | | | | | | | | | | | | | | | | |
| LEL | Time | | | | | | | | | | | | | | | | | | |
| | Level | | | | | | | | | | | | | | | | | | |
| | By | | | | | | | | | | | | | | | | | | |
| Hydrogen Sulfide | Time | | | | | | | | | | | | | | | | | | |
| | Level | | | | | | | | | | | | | | | | | | |
| | By | | | | | | | | | | | | | | | | | | |
| Benzene | Time | | | | | | | | | | | | | | | | | | |
| | Level | | | | | | | | | | | | | | | | | | |
| | By | | | | | | | | | | | | | | | | | | |
| VOC | Time | | | | | | | | | | | | | | | | | | |
| | Level | | | | | | | | | | | | | | | | | | |
| | By | | | | | | | | | | | | | | | | | | |
| | Time | | | | | | | | | | | | | | | | | | |
| | Level | | | | | | | | | | | | | | | | | | |
| | By | | | | | | | | | | | | | | | | | | |
| | Time | | | | | | | | | | | | | | | | | | |
| | Level | | | | | | | | | | | | | | | | | | |
| | By | | | | | | | | | | | | | | | | | | |
| | Time | | | | | | | | | | | | | | | | | | |
| | Level | | | | | | | | | | | | | | | | | | |
| | By | | | | | | | | | | | | | | | | | | |
| | Time | | | | | | | | | | | | | | | | | | |
| | Level | | | | | | | | | | | | | | | | | | |
| | By | | | | | | | | | | | | | | | | | | |
| | Time | | | | | | | | | | | | | | | | | | |
| | Level | | | | | | | | | | | | | | | | | | |
| | By | | | | | | | | | | | | | | | | | | |

Equipment: Type: _____ Mfger: _____ Calibration/Expiration _____
 Type: _____ Mfger: _____ Calibration/Expiration _____

Date: _____

NRC Assigned Number: _____

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XI. Work Area Diagram

Please include wind direction, exclusion zone, support zone, decon zone, evacuation routes and significant landmarks.

A large grid area for drawing a work area diagram. The grid consists of 30 columns and 30 rows of small squares, providing a space for the user to draw and label various zones and landmarks as specified in the instructions above.



6.0 SPILL IMPACT CONSIDERATIONS

- 6.1 [Critical Areas to Protect](#)
- 6.2 [Environmental/Socio-Economic Sensitivities](#)
- 6.3 [Wildlife Protection and Rehabilitation](#)
- 6.4 [Staging Areas](#)
- 6.5 [Vulnerability Analysis](#)
- 6.6 [General Industry Standards for Containment and Recovery](#)
- 6.7 [Industry Standards for Shoreline & Habitat Response Zone Cleanup](#)
- 6.8 [Environmental Sensitivity Maps](#)
- 6.9 [Booming Strategies](#)
- 6.10 [Alternative Response Strategies](#)

Figure 6.1 [Animals](#)

Figure 6.2 [Plants](#)

6.1 CRITICALS AREAS TO PROTECT

The critical areas to protect are classified as having high, moderate, or low sensitivity to oil. Because a shoreline's sensitivity and type can change over time, the Shoreline Cleanup Assessment Team (SCAT) should perform on-site confirmations of sensitivity levels at the time of a spill. The Federal, State, and local authorities will further clarify these categories at the time of the response. The categories are defined as follows:

HIGH SENSITIVITY

- Areas which are high in productivity, abundant in many species, extremely sensitive, difficult to rehabilitate, or inhabited by threatened or endangered species.
- Areas which consist of forested areas, brush/grassy areas, wooded lake areas, freshwater marshes, wildlife sanctuaries/refuges, and vegetated river and stream banks with vegetation present.

MODERATE SENSITIVITY

- Areas of moderate productivity, somewhat resistant to the effects of drilling.
- Areas which consist of degraded marsh habitat, clay/silt banks with vegetated margins, gravel/cobble beaches.

LOW SENSITIVITY

- Areas of low productivity, man-made structures, and/or high energy.
- Areas which consist of gravel, sand or clay material, barren/rocky riverbanks and lake edges, man-made structures and concrete/compacted earthen drainage ditches.

6.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES

Environmental/Socio-economic sensitive areas of extreme importance and must be considered when planning a response effort. Protection of the health and safety of the public and the environment, as well as the protection of the various socio-economic sensitivities, must also be promptly addressed in order to mitigate the extent of damage and minimize the cost of the clean-up effort.

All environmental and socio-economic sensitive areas worthy of protection, but must be prioritized during a response effort. When making decisions on which areas to designate as collection areas and which to protect, the following sources may be consulted:

- U.S. Fish and Wildlife Service and related state agencies
- Applicable Area Contingency Plans
- Maps showing environmentally sensitive areas
- Other industry and private experts

The environmental and socio-economic sensitive areas in the vicinity of the Facility have been broken down into specific categories and identified in this Section.

Priority consideration will be given to those areas in the immediate vicinity of the Facility property. Specific actions that will be considered (as appropriate) include:

- Containment of the spill as close as possible to Facility property.
- Protection of shoreline areas to minimize environmental impact.
- Protection of the public boat ramps and private marinas.
- Protection of Public Parks.
- Protection of neighboring facility docks.
- Protection of the water intakes.
- Protection of fleeted vessels/barges in the area.

To further clarify the location of the sensitive areas of concern, Environmental Sensitivity Maps are provided in Appendix G.

6.3 WILDLIFE PROTECTION AND REHABILITATION

The Company will work with Federal, State, and local agency personnel to provide labor and transportation to retrieve, clean, and rehabilitate wildlife affected by an oil spill, as necessary. Oversight of the Company's wildlife preservation activities and coordination with Federal, State, and local agencies during an oil spill is the responsibility of the Incident Commander.

Special consideration should be given to the protection and rehabilitation of endangered species and other wildlife and their habitat in the event of an oil spill and subsequent response. Jurisdictional authorities should be notified and worked with closely on all response/clean-up actions related to wildlife protection and rehabilitation. Laws with significant penalties are in place to ensure appropriate protection of these species.

Endangered/Threatened Species

The U.S. Fish and Wildlife Service (USFWS) and related state agencies classify the status of various wildlife species in the potentially affected states. A summary of critical birds, reptiles, mammals, and plant species status as related to the Facility's operating area is presented in Figure 6.1 and Figure 6.2.

Wildlife Rescue

The following are items which should be considered for wildlife rescue and rehabilitation during a spill response:

- Bird relocation can be accomplished using a variety of deterrents encouraging birds to avoid spill impacted areas. Care must be taken to avoid taking actions that could be construed as disturbing the wildlife instead of being a deterrent.
 - Use of visual stimuli, such as inflatable bodies, owls, stationary figures, or helium balloons, etc.
 - Use of auditory stimuli, such as propane cannons, recorded sounds, or shell crackers.
 - Use of herding with aircraft, boats, vehicles, or people (as appropriate).
 - Use of capture and relocation.

Wildlife Rescue - Points to Consider

- **The Company's involvement should be limited to offering assistance as needed or requested by the agencies.**
- **Prior to initiating any organized search and rescue plan, authorization must be obtained from the appropriate federal/state agency.**
- **Initial search and rescue efforts, if needed, should be left up to the appropriate agencies.** They have the personnel, equipment, and training to immediately begin capturing contaminated wildlife.
- With or without authorization, it must be anticipated that volunteer citizens will aid distressed/contaminated wildlife on their own. It is important to communicate to the public that it may be illegal to handle wildlife without express authority from appropriate agencies. Provisions should be made to support an appropriate wildlife rehabilitation organization; however **no support should be given to any unauthorized volunteer rescue efforts.**
- The regulatory agencies and response personnel should be provided the name and location of a qualified rehabilitator in the event contaminated wildlife is captured.
- Resources and contacts that can assist with wildlife rescue and rehabilitation are provided in Section 2. This list includes:
 - Outside rehabilitation organizations
 - Local regulatory agencies
 - Other resources

6.4 STAGING AREAS

When establishing personnel and equipment staging areas for a response to a Facility discharge, the following criteria should be evaluated:

- Access to waterborne equipment launching facilities and/or land equipment.
- Access to open space for staging/deployment of heavy equipment and personnel.
- Access to public services utilities (electricity, potable water, public phone, restroom and washroom facilities, etc.)
- Access to the environmental and socio-economically sensitive areas which are projected for impact.

6.5 VULNERABILITY ANALYSIS***Water Intakes***

(b) (3), (b) (7)(F)

Personnel or agencies associated with these intakes should be notified and these areas should be given special attention during any spill.

Residential Areas

Several residential areas are located throughout the planning distance of the Facility. For the exact locations of these areas, refer to the Inland Sensitivity Maps.

Schools

(b) (3), (b) (7)(F)

Any evacuation efforts for these school(s) will be coordinated by the local emergency assistance agencies (police department, fire department, etc.).

Medical Facilities

There are no medical facilities identified within the planning distance from the Facility that may be potentially impacted by a discharge originating from the Facility.

Businesses

There are no businesses identified within the planning distance from the Facility that may be potentially impacted by a discharge originating from the Facility.

Wetlands and other Sensitive Environments

Wetland habitats exist in the area of the Facility and are identified on the Environmental Sensitivity Maps. They also identify shoreline types and sensitive areas.

Fish and Wildlife

The shoreline and general environment in the area of the Facility is highly commercialized. The wildlife population is limited. Flora and fauna are always present and are sensitive to the effects of a pollution incident. All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the most sensitive and susceptible areas to pollution.

Lakes and Streams

The following waterbodies could be impacted by a release from the Facility within the planning distance:

| LAKES AND STREAMS |
|--|
| Lake Michigan from Hammond Terminal |
| Lake Calumet from Hammond Terminal |
| Grand Calumet River from Hammond Terminal |
| Little Calumet River from Hammond Terminal |
| Wolf Lake from Hammond Terminal |
| Lake George from Hammond Terminal |
| Indiana Harbor Canal from Hammond Terminal |
| Burns Ditch from Hammond Terminal |

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Figure 6.1 and Figure 6.2. USFWS and applicable state agencies will be contacted for information regarding endangered species.

Recreational Areas

There are several recreational areas located throughout the planning distance of the Facility. The Environmental Sensitivity Maps detail the location and name of each recreational area.

Transportation Routes (air, land, and water)

There are no transportation routes identified within the planning distance from the Facility that may be potentially impacted by a discharge originating from the Facility.

Utilities

Currently there are no utility companies within the area of the Facility.

Other Areas of Economic Importance

There are no other areas of economic importance within the planning distance of the facility.

Other Areas of Potential Impacts

There are no other areas of potential impact within the planning distance of the facility.

6.6 GENERAL INDUSTRY STANDARDS FOR CONTAINMENT AND RECOVERY

General descriptions of various specific response techniques that may be applied during a response effort are discussed below. The Company's responders are free to use all or any combination of these methods as incident conditions require, provided they meet the agency approval, appropriate safety standards and other requirements relative to the situation encountered. Data was obtained from reports, manuals and pamphlets prepared by the American Petroleum Institute, Environmental Protection Agency and the United States Coast Guard. The most effective cleanup of a product spill will result from an integrated combination of clean-up methods. Each operation should complement and assist related operations and not merely transfer spillage problems to areas where they could be more difficult to handle. Also, see Section 6.9 for Facility specific booming strategies.

The spill should be assessed as soon as possible to determine the source, extent and location of travel. Terrain and other physical conditions downgradient of the spill site will determine the methods of control at a point in advance of the moving product. Often, the bulk of a spill can be contained at a single location or a few key locations in the immediate vicinity of the source point. When possible, the execution of this type of initial containment strategy helps confine a spill to a relatively limited area.

Spill on Land (Soil Surfaces)

• Confinement Methods

Product can be trapped in ditches and gullies by earth dams. Where excavating machinery is available, dams can be bulldozed to contain lakes of product. Dams, small and large, should be effectively employed to protect priority areas such as inlets to drains, sewers, ducts and watercourses. These can be constructed of earth, sandbags, absorbents, or any other effective method. If time does not permit a large dam, many small ones can be made, each one holding a portion of the spill as it advances. The terrain will dictate the placement of the dams. If the spill is minor, natural dams or earth absorption will usually stop the product before it advances a significant distance. Cleanup is the main concern in such situations.

In situations where vapors from a spill present a clear and present danger to property or life (possible ignition because of passing automobiles, nearby houses, or work vehicles approaching the area), spraying the surface of the spill with dispersant will greatly reduce the release of additional vapors from the product. This method is especially adapted to gasoline spills on soil surfaces.

Prior to the use of dispersant agents, ensure that permission has been granted by government authorities and local landowner. Local government authorities to be contacted may include city council, county board of commissioners, city or county fire chiefs, the county forestry commission or firetower, and the local environmental protection agency. In seeking permission from these authorities, be prepared to convince them that adequate safety precautions have been and will be taken during the operation.

• Removal Methods

The recovery and removal of free product from soil surfaces is a difficult job. The best approaches at present seem to be:

- Removal with suction equipment to tank truck if concentrated in volumes large enough to be picked up. Channels can be formed to drain pools of product into storage pits. The suction equipment can then be used.
- Small pockets may have to be dipped up by hand.

Spill in Nearshore Urban Areas

Oil spills in urban areas can greatly impact recreational use, human health, wildlife habitat(s), and potential beach or park closures. Manmade structures along waterways require unique protection strategies. Manmade structures could include vertical shore protection structures such as seawalls, piers, and bulkheads, as well as riprap revetments and groins, breakwaters, and jetties. Vertical structures can be constructed of concrete, wood, and corrugated metal. They usually extend below the water surface, although seawalls can have beaches or riprap in front of them. These structures are very common along developed shores, particularly in harbors, marinas, and residential areas.

The range in degree of exposure to waves and currents varies widely, from very low in dead-end canals, to very high on offshore breakwaters. Boat wakes can generate wave energy in otherwise sheltered areas.

Maintaining shipping or other kinds of vessel traffic through navigation channels or waterways during a spill response is a difficult consideration because there is usually economic and political pressure to re-establish normal operations as soon as possible. For these reasons, recovery efforts must be coordinated through the Unified Command to ensure the cooperation of all parties involved.

- **Confinement Methods**

In harbor areas, oil can often be contained by a vessel of opportunity or a dedicated Oil Spill Response Vessel (OSRV) using containment booms and skimmers. Optimum conditions for recovery operations would be with currents of 3 knots or less. The facility could also deploy boom from shore to contain and concentrate product in the vicinity of the release point until the product can be removed.

Spill on Small to Medium Size Streams (Fast-Flowing Creeks)

• Confinement Methods

The techniques used for product containment on fast-flowing shallow streams are quite different from the ones used on lakes, ponds, or other still bodies of water. The containment and removal processes require a calm stretch of water to allow the product to separate onto the surface of the water. If a calm stretch of water does not exist naturally, a deep slow-moving area should be created by damming. The dam can be constructed by using sandbags, planks or earth. If a dam is required, it should be situated at an accessible point where the stream has high enough banks. The dam should be constructed soundly and reinforced to support the product and water pressure.

- Underflow dam - The underflow dam is one method that can be used, especially on small creeks. The water is released at the bottom, of the dam using a pipe or pipes which are laid during construction of the dam. The flow rate through the pipe must be sufficient to keep the dam from overflowing. One method is to lay the pipe at an angle through the dam (while dam is being constructed) so that the height of the downstream end of the pipe will determine the height the water will rise behind the dam.
- Overflow dam - Another method of containment is the overflow type dam. The dam is constructed so that water flows over the dam, but a deep pool is created which slows the surface velocity of the water. Therefore, the condition of a calm stretch of water is met. The overflow dam may be used where larger flow rates (medium size creeks) of water are involved.

With this type dam, a separate barrier (floating or stationary boom) must be placed across the pool created by the dam. The separate barrier arrests the surface layer of product. At the same time, the water is flowing under the barrier and over the top of the dam. The barrier should be placed at an angle of 45 % across the pool to decrease the effective water velocity beneath it. Also, it helps to concentrate the product at the bank and not all along the barrier. A second barrier should be placed approximately 10 to 15 feet downstream of the first one as a secondary back-up.

The stationary boom type barrier should be made of wood planks or other suitable material. The stationary boom should be soundly constructed and sealed against the bank. The ends of the planks can be buried in the banks of the stream and timber stakes driven into the stream bed for support as needed. The necessary length of the boom will be approximately 1-1/2 times the width of the waterway.

The plank boom should extend six to eight inches deep into the water and about two inches or higher above the water level. If the increase in velocity under the stationary boom is causing release of trapped product, it should be moved upward slightly. At no time should barrier be immersed more than 20% of the depth of the pool at the barrier location; that is, if the pool created by damming is three feet deep, do not exceed an immersion depth of seven inches with the barrier at the position the barrier is installed.

Another method used with the underflow dam is having the pipe or pipes sized to carry only a portion of the flow needed. The pipe would be placed at the bottom of the dam and level with the creek bed. The remaining flow of the creek could be siphoned or preferably pumped around the dam from a point away from the dam and from the deepest portion of the pool. The pumping or siphoning can be controlled to maintain the desired water level at the dam. The key is the removal of water through or around the dam at the lowest point in the basin. This prevents the oil from escaping with the released water.

A floating boom can be used in place of the stationary type if the created pool's size (bank to bank) and depth will permit. Since changing the depth and/or length of a standard floating boom in a small stream is difficult, the use of the stationary type permits adjustments to be made in depth to provide for a better separation of product and water. The advantages of using a floating boom are the speed of deployment and the fact that there is not a need for additional support as with the stationary boom.

- Multiple Impoundments - Since emergency built dams (either underflow or overflow) are seldom perfect, a series of dams is usually required. The first one or two will trap the bulk and the ones that are downstream will trap the last traces of product. Precautions should be taken to ensure that the foundations of emergency dams are not washed away by the released water. If earth is used to construct an overflow dam, a layer of earth-filled bags should be placed on top of the dam so erosion will not take place.

• Removal Methods

Once the containment dams are constructed, the problem or removal of the product from the water surface should be the prime consideration. The removal must be continuous or else build-up of product behind the dams or booms might lead to product escaping the traps.

The type of removal procedures used depends largely on the amount of product being trapped in a given span of time, if the amount of product moving down the stream is of sufficient quantity, the first dam or fixed boom would quite possibly trap enough for the floating skimmer to work efficiently. The skimmer will pump the product and possibly some water to a tank truck or other holding tank. Separated water may be released from the bottom of the tank truck if it becomes necessary. The absorbents could then be used at downstream dams or booms. It is inadvisable to place an absorbent in the stream prior to or at the first dam in anticipation of the arriving product. Let the product accumulate at the first dam and use the floating skimmer to recover the product.

Disposal of gross amount of product-soaked absorbent would not then be a problem. Follow directions on use of each absorbent. Some are designed to be placed on water before product arrives; others are intended only to be placed on the product after it accumulates on the water. Plastic sheets should be used to place the product-soaked absorbent on as it is hand skimmed from the water. Alternatively, the material may be placed in drums or lined roll-off boxes.

The containment and removal of spilled product on small to medium fast-flowing streams might require a combination of underflow or overflow dams, fixed booms, skimmers, and absorbents, to ensure a complete cleanup.

Spill on Lake or Pond (Calm or Slow-Moving Water)

• Confinement Methods

A lake or pond offers the best conditions for removal of product from water. Although the removal is no easy task, the lake or pond presents the favorable conditions of low or no current and low or no waves.

The movement of product on a lake or pond is influenced mainly by wind. The product will tend to concentrate on one shore, bank or inlet. Booms should be set up immediately to hold the product in the confined area in the event of a change in wind direction.

If the spill does not concentrate itself on or near a shore (no wind effect), then a sweeping action using boats and floating booms will be necessary.

The essential requirement for this operation is that it be done very slowly. The booms should be moved at not more than 40 feet per minute. Once the slick is moved to a more convenient location (near shore), the normal operations of removal should begin.

If the slick is small and thin (rainbow effect) and not near the shoreline, an absorbent boom instead of a regular boom should be used to sweep the area very slowly and absorb the slick. The product may not have to be moved to the shoreline.

• Removal Methods

If the confined slick is thick enough, regular suction equipment may be used first; however, in most instances, a floating skimmer should be used.

If the floating skimmer starts picking up excess water (slick becomes thin), drawing the boom closer to the bank as product is removed will also keep film of product thicker. However, when the slick becomes too thin, the skimmer should be stopped and an absorbent applied (with a boat if necessary) to remove the final amounts. The floating skimmer (if speed is a must) or hand skimmers (if water is shallow enough) or both can be used to pick up the product-soaked absorbent. Before pumping the product-soaked absorbent with a floating skimmer, ensure that the absorbent in question can be pumped and will not harm the pump. Several types are nonabrasive to pump internals. If the floating skimmer is used first, the product-soaked absorbent/water mixture should be pumped into a tank truck.

A better method of retrieving the product-soaked absorbent is to draw it in as close to the shore as possible with the booms used to confine the product initially. The absorbent can then be hand skimmed from the water surface and placed in drums, on plastic sheets or in lined roll-off boxes. It should then be disposed of by acceptable means.

The final rainbow on the surface can be removed with additions of more absorbent.

Spill on Large Streams and Rivers

• Confinement Methods

The containment techniques differ considerably on large streams and rivers versus small streams. First, the smooth calm area of water necessary for product-water separation must be found along the stream or river rather than making one as with small streams. Floating booms (rather than fixed booms or dams) must be used to trap the surfaced product.

Local conditions of current and wind must be considered when selecting the site for the boom. A point with a low water velocity near the bank, sufficient depth to operate the product removal equipment, and good access are required. The fact that wind may tend to concentrate the product against one bank must be considered. A smooth, undisturbed area of water is required immediately upstream of the boom to ensure that the product has opportunity to separate out onto the surface. The boom should be positioned where the current is at a minimum. It is more effective to boom at a wide, slow position than on a narrow, fast stretch of water.

If the current of the entire river is 1/2 knot (0.8 ft/sec) or less, then a boom can be positioned straight across the river or large stream, but angled slightly in relation of the banks. By placing the boom at an angle to the banks, product on the surface is diverted along the boom to the side of the river.

The current velocity is usually much slower near the river bank than in the center and the product will move along the boom toward the bank for removal. A water-tight seal between the bank and the boom is essential. A secondary boom should be set up immediately downstream of the first one to capture the amounts that escape the upstream boom. A boom can be employed parallel to the river flow at the bank to form the seal with the booms used to trap the product.

Where the current velocity of the chosen site exceeds 1/2 knot, the boom should be positioned in two smooth curves from a point of maximum velocity (usually the center of the river) to both banks. However, this double-boom required product to be removed from both sides of the river. To determine the appropriate angle of boom placement and support (mooring) needed to hold the booms in position, the current velocity should be measured by timing a floating object which is 80% submerged over a distance of 100 feet. A time of 60 seconds over this distance indicates a water current of approximately 1 knot.

For currents from 1 to 2.5 knots (1.7 to 4.2 ft./sec.), the more the boom will have to be angled acute to the bank. The length of the boom will have to be such to reach the center of the river. For currents between 1/2 and 1 knot (0.8 and 1.7 ft./sec.), the angle of employment can be enlarged.

The major load on the boom is taken by the terminal moorings, particularly the one in the center of the river. However, intermediate moorings are also required both to maintain the smooth curve of the boom to prevent breaking of the boom and to assist with preventing skirt deflection. The intermediate moorings are preferably positioned every 25 feet and must be adjusted to avoid the formation of indentations in the boom profile. These trap product in pockets, prevent its deflection to the bank, and also encourage diving currents. The moorings' ropes should be five times the water depth.

In certain situations, it might be advantageous to position booms to deflect the approaching spilled product to a slower moving area. Naturally, additional booms would have to be positioned around this slower moving area prior to deflecting the product to the area. This approach has been used along river which has lagoons, etc., with a very low current action. The recovery would take place in the lagoons and not along the river bank.

- **Removal Methods**

The product collected upstream of the floating booms in a large stream or river should be removed from the water surface as it accumulates. Regular suction equipment, a floating skimmer, and/or absorbents (including absorbent booms) should be used to remove the product as appropriate to the quantity being trapped in a given span of time. If the amount moving down the stream is of sufficient quantity, the primary floating boom would possibly trap enough for the floating skimmer to work efficiently. The skimmer will pump the product and some water to a tank truck or other holding tank.

The absorbents would then be used upstream of the secondary boom to absorb the underflow from the primary boom. An absorbent boom can also be placed between the primary and secondary booms to help the other absorbents control the underflow from the primary boom.

It is best to hand skim the saturated absorbents and place on plastic sheets. However, if the absorbent used can be pumped after product absorption and speed of removal is a necessity, the floating skimmer can be used to remove the product-soaked absorbent.

The disadvantage of pumping the product-soaked absorbent to a truck is the volume that will accumulate (skimmer will pump excess water) and the disposal problems associated with the large water/product-soaked absorbent mixture.

6.7 INDUSTRY STANDARDS FOR SHORELINE & HABITAT RESPONSE ZONE CLEANUP**Spills in Inland Environment****Wetland Habitats****• Description**

- Wetlands are characterized by water, unique soils that differ from adjacent upland areas, and vegetation adapted to wet conditions.
- Wetlands include a range of habitats such as marshes, bogs, and bottomland.
- Substrate, vegetation, hydrology, seasonality, and biological use of inland wetlands are highly variable, making characterization difficult.
- The surfaces of wetlands usually have a low gradient and vegetated areas are typically at or under the water level.
- There can be distinct channels or drainages with flowing water, except at the exposed outer fringe; however, natural physical processes are minimal.
- Water levels may vary seasonally, and the wetland may be simply a zone of water-saturated soils during the dry season.

• Predicted Oil Behavior

- The threat of or direct oiling of endangered/threatened species using the wetland often drives efforts to remove the oil.
- If oil and/or cleanup efforts causes a loss of the more sensitive plants or modifies the ecosystem structure, then feeding and breeding of dependent wildlife may be affected.

• Response Considerations

- Natural recovery may be appropriate where destruction of sensitive habitats may have greater impact on endangered/threatened species.
- Sorbents are useful but care must be taken during placement and recovery to minimize disturbance of substrate and vegetation.
- Vacuum removal is most effective where access is good and substrate can support vehicles and oil is pooled; however, in soft substrate, it will probably cause extensive physical disruption.

Vegetated Shoreline Habitats

• Description

- Vegetated shoreline habitats consist of the non-wetland vegetated banks that are common features of river systems and lakes.
- Bank slopes may be gentle or steep, and the vegetation consists of grasses, bushes, or trees common to the adjacent terrestrial habitats.
- The substrate is not water-saturated and can range from clay to gravel.
- The banks may flood seasonally and are exposed to relatively high-energy removal processes, at least periodically.
- Along undeveloped shorelines, there can be leafy litter and woody debris trapped among the vegetation.
- In developed areas, yards and gardens may abut the lake or river.

• Predicted Oil Behavior

- Vegetated shoreline habitats are considered to have medium to high sensitivity to oil spills.
- They are not particularly important habitats for sensitive animals and plants, although many animals use vegetated banks for drinking, washing food, crossing bodies of water, and feeding.
- Bank plants oiled during a flood period could be susceptible, especially if the flood rapidly subsides, allowing oil to penetrate into bank sediments and to contact root systems.
- Stranded oil could remain in the habitat until another flood reaches the same level and provides a mechanism for natural flushing.
- On steep banks, the oil is likely to form a band, or multiple bands, at the waterline.
- On gentle banks, there is a greater potential for oil to accumulate in pools, penetrate the substrate, and coat large areas of vegetation, thus raising the issue of shoreline cleanup.
- In developed urban and suburban areas, human use and aesthetics would be the main reasons for cleanup.

• Response Considerations

- Natural recovery may be appropriate for small spills and lighter oils where the product will not be transported to more sensitive habitats
- Flooding may be appropriate for gentle banks where persistent oil has pooled, assuming the released oil can be directed towards recovery devices
- Low-pressure, cold-water flushing may be effective for washing lighter oil stranded on the banks into the water for recovery
- Vegetation cover minimizes the potential for sediment erosion from flushing
- Sorbents are useful for recovering sheens, even for gasoline spills
- Vacuum removal is most effective where access is good and substrate can support vehicles and oil is pooled

Spills on Ice

Accessible and Inaccessible

- **Description**

- Ice forms on the water surface during winter in cold climates and can persist for several months.
- Most water surface ice is floating but can be frozen to the bottom.
- Accessible ice can safely support the personnel and equipment suitable for response to a particular oil spill on, in, under, or adjacent to solid ice.
- Inaccessible ice cannot safely support response personnel and response equipment.

- **Predicted Oil Behavior**

- Ice along the shoreline can act as a natural barrier, reducing the amount of oil that might otherwise make contact with the shoreline substrate.
- During the ice growth phase, oil in or under the ice can become encapsulated within the ice.
- During a thaw, or if the surface of the ice is melting and wet, oil is unlikely to adhere to the ice surface and will tend to remain on the water surface or in leads.
- In the spring, before the ice becomes inaccessible, oil in or below the ice will often migrate through channels to the surface.

- **Response Considerations**

- The ice habitat presents unique safety issues in terms of cold, ice stability, and wildlife interactions.
- Oil spills on, in, under, or adjacent to brash ice, small or fast moving floes, or other ice types which are "inaccessible" must be treated from the air or from vessels working in, or alongside, the ice.
- Some methods, including flooding, debris removal, sediment reworking, vegetation cutting and removal, high-pressure flushing, sand blasting, solidifiers, and shoreline cleaning agents, are not considered suitable for use in these environments.

6.8 ENVIRONMENTAL SENSITIVITY MAPS

Environmental Sensitivity Maps have been prepared to assist in locating areas that will need protection during a hazardous material spill incident. Environmental Sensitivity Maps are located in Appendix G. These maps are to be utilized as guidelines only. During a real response effort Federal, State, and Local agencies should be contacted to provide further assistance in the proper identification and protection of the various environmental and socio-economic sensitive areas. The Company places maximum priority upon the protection of the environment that may be endangered, and the immediate commitment of response resources to protect all sensitive and endangered areas.

6.9 BOOMING STRATEGIES

Based the Area Contingency Plan's Environmental Sensitivity Maps (Appendix G), the QI/IC will direct the OSRO to install boom to contain or divert product to protect sensitive areas. The first boom will be placed as far out in the river or canal as product appears on the water. This boom will be positioned at an angle to current direction so that product is moved toward the bank of the waterway. Moving petroleum product to the bank allows the use of land vehicles for recovery and slows downstream migration of the spill. The second boom will also be installed at an angle to the current in order to receive petroleum product diverted by the first boom, and move product towards the bank. OSRO personnel will continue installing booms in this manner until all product gathered by the last boom is on the waterway bank at the site chosen for skimming and vacuum truck removal. Absorbent booms will be installed downstream of the containment booms to collect any product escaping from the diversion booms.

6.10 ALTERNATIVE RESPONSE STRATEGIES

There are no pre-approved response options for inland spills within the United States. Any plans to use dispersants or in situ burn by the Company will be submitted to the Federal On-Scene Coordinator for Regional Response Team approval prior to such action being taken. All Facility response personnel have been informed that detergents or other surfactants are prohibited for use on water and that dispersants can only be used with the approval of the Federal Regional Response Team and the SOSOC.

FEDERAL ENDANGERED/THREATENED SPECIES LISTING

(The following list of species is taken from the U.S. Fish and Wildlife Service Website http://ecos.fws.gov/tess_public/StateListing.)

FIGURE 6.1

| ANIMALS (Indiana) | | |
|-------------------|--|--|
| Status | Species Name | Scientific Name |
| E | Bat, gray | <i>Myotis grisescens</i> |
| E | Bat, Indiana | <i>Myotis sodalis</i> |
| E | Beetle, American burying | <i>Nicrophorus americanus</i> |
| E | Butterfly, Karner blue | <i>Lycaeides melissa samuelis</i> |
| E | Butterfly, Mitchell's satyr | <i>Neonympha mitchellii mitchellii</i> |
| E | Catspaw (=purple cat's paw pearlymussel) Entire Range; Except where listed as Experimental Populations | <i>Epioblasma obliquata obliquata</i> |
| E | Catspaw, white (pearlymussel) | <i>Epioblasma obliquata perobliqua</i> |
| E | Clubshell Entire Range; Except where listed as Experimental Populations | <i>Pleurobema clava</i> |
| E | Curlew, Eskimo | <i>Numenius borealis</i> |
| E | Dragonfly, Hine's emerald | <i>Somatochlora hineana</i> |
| E | Fanshell | <i>Cyprogenia stegaria</i> |
| E | Mapleleaf, winged Entire; except where listed as experimental populations | <i>Quadrula fragosa</i> |
| E | Mucket, pink (pearlymussel) | <i>Lampsilis abrupta</i> |
| E | Mussel, scaleshell | <i>Leptodea leptodon</i> |
| E | Pearlymussel, cracking Entire Range; Except where listed as Experimental Populations | <i>Hemistena lata</i> |
| E | Pigtoe, rough | <i>Pleurobema plenum</i> |
| E | Pimpleback, orangefoot (pearlymussel) | <i>Plethobasus cooperianus</i> |
| E | Plover, piping Great Lakes watershed | <i>Charadrius melodus</i> |
| T | Plover, piping except Great Lakes watershed | <i>Charadrius melodus</i> |
| E | Pocketbook, fat | <i>Potamilus capax</i> |
| E | Puma (=cougar), eastern | <i>Puma (=Felis) concolor cougar</i> |
| E | Riffleshell, northern | <i>Epioblasma torulosa rangiana</i> |
| E | Ring pink (mussel) | <i>Obovaria retusa</i> |
| T | Snake, copperbelly water MI, OH, IN N of 400 N. Lat. | <i>Nerodia erythrogaster neglecta</i> |
| E | Tern, least interior pop. | <i>Sterna antillarum</i> |
| E | Wartyback, white (pearlymussel) | <i>Plethobasus cicatricosus</i> |

| ANIMALS (Cont'd) | | |
|------------------|---|--------------------|
| Status | Species Name | Scientific Name |
| E | Wolf, gray Lower 48 States, except where delisted and where EXPN. Mexico. | <i>Canis lupus</i> |

FIGURE 6.2
PLANTS (Indiana)

| PLANTS (Indiana) | | |
|------------------|---------------------------------|-------------------------------|
| Status | Species Name | Scientific Name |
| E | Clover, running buffalo | <i>Trifolium stoloniferum</i> |
| T | Milkweed, Mead's | <i>Asclepias meadii</i> |
| T | Orchid, eastern prairie fringed | <i>Platanthera leucophaea</i> |
| T | Thistle, Pitcher's | <i>Cirsium pitcheri</i> |

E = Endangered

T = Threatened

Federally Endangered Species: Any species which is in danger of extinction throughout all or a significant portion of its range.

Federally Threatened Species: Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.



APPENDIX A

RESPONSE EQUIPMENT / RESOURCES

- A.1 [Emergency Response Equipment](#)
 - A.2 [Contract Resources](#)
 - A.3 [Cooperative/Mutual Aid Resources](#)
 - A.4 [Experts and Consultants](#)
 - A.5 [Volunteers](#)
 - A.6 [Communications](#)
-
- Figure A.1 [Emergency Response Equipment](#)
 - Figure A.2 [Facility Response Equipment](#)
 - Figure A.3 [Contracted Response Resources](#)
 - Figure A.4 [USCG OSRO Classifications](#)
 - Figure A.5 [OSRO Contracts](#)

A.1 EMERGENCY RESPONSE EQUIPMENT

The Facility is not equipped with emergency response equipment. The Facility has contracts in place with Oil Spill Removal Organizations and other clean-up contractors for response to a discharge.

The Qualified Individual has the authority to activate other Company resources or that of private contractors and other experts and consultants as the situation demands.

A.2 CONTRACT RESOURCES

The Facility has agreements in place with the OSRO(s) that would be activated if necessary. These resources are contracted to ensure that sufficient personnel and equipment is available to protect environmentally and economically sensitive areas during a worst case discharge as described in Appendix B. Figure A.3 provides a quick reference to the Oil Spill Removal Organizations and details their response capability and estimated response times. **Telephone reference is provided in Figure 2.2.** Figure A.4 is a description of the USCG classifications according to the OSRO response capabilities. Figure A.5 includes the current OSRO contracts. These resources along with Company personnel, as necessary, will provide trained personnel and equipment to conduct a spill response for at least seven days. (Note: The Company receives annual PREP letters to ensure that each OSRO has a comprehensive maintenance program and applicable training/drills programs in place.)

A.3 COOPERATIVE/MUTUAL AID RESOURCES

The Facility is not currently associated with a Cooperative/ Mutual Aid system. All response resources would be either Company owned or contracted.

A.4 EXPERTS AND CONSULTANTS

The Company maintains a relationship with various environmental and technical consultants that can provide support in the event of an emergency incident. These consultants can provide expertise and support in the areas of emergency response management, environmental services, site assessment, permitting, waste treatment, recycling, dewatering, hazardous waste disposal, and remediation.

A.5 VOLUNTEERS

Volunteers will not be utilized by the Company for the response operations. All volunteers will be referred to the State or Federal On-Scene Coordinator.

A.6 COMMUNICATIONS

Effective and efficient communications systems are essential for emergency response at every level. The communications system will be utilized to gather information and current status reports as well as to provide coordination and direction to widely separated work groups involved in search, containment/diversion, repair, traffic control, public control or evacuation, and restoration. (*Note: All communication equipment used during a response within an area that may potentially contain a flammable atmosphere will be intrinsically safe. During regular operations, any device that is not intrinsically safe will not be allowed in transfer areas, safety zones, or any other area containing flammable atmospheres.*)

Communication Types

Telephone (Conventional)- Conventional land-line telephones are the most effective means of communication for regulatory and advisory notifications during response operations. Additional telephone lines can be installed in the event of a prolonged response operation.

Telephone (Cellular)- Cellular telephones allow for added mobility and response effectiveness. Cellular phones are commonly maintained by certain Company personnel. Additional cellular phones can be secured in the event of a prolonged response operation.

Radios- Handheld and vehicle mounted radio sets are the most effective means of communication for the field response operation. The units are battery operated, multi-channelled, and have a typical range that will cover the area of the response operation. Additional radio sets and battery packs/charges will be necessary in the event of a prolonged response operation.

Pagers- Pagers are used for rapid notification to field personnel when radio and telephone resources are limited. Most response team members carry a pager.

FAX Machines- FAX machines allow for a rapid transfer of information/ documentation such as status reports/updates, written notifications, and purchase orders.

Computers- Computers are commonly used in networks which allow access to various other locations and company personnel. Computers also speed the consolidation of information and preparation of written report.

Sirens- Sirens, when present, are used to rapidly communicate basic emergency information Plant-wide. The system is loud enough to be heard by all personnel on the facility.

Prearranged Communications

Prearranged communication channels are of the utmost importance in dealing with Company emergencies. The notification procedures and telephone contacts documented in Section 2 will be reviewed in accordance with the earlier documented updating procedures. The predetermined communications channels include the following:

- A list of emergency telephone numbers for internal management and emergency response personnel (Figures 2.1).
- A list of emergency telephone numbers for various external resources such as the fire and police department, medical, and regulatory agencies (Figure 2.5).
- A list of emergency telephone numbers for contract response resources (Figure 2.2).
- Pre-determined radio frequencies are used for incident communications. A description of these radio frequencies is provided later in this section.

During a spill incident, the communication between the Company and the responsible government agencies in the Federal Regional Response Team (RRT) will occur between the Incident Commander and the Federal On-Scene Coordinator.

Communications Equipment

Telephones

Telephone (Conventional) - Conventional land-line telephones are the most effective means of communication for regulatory and advisory notifications during response operations.

Additional telephone lines can be installed in the event of a prolonged response operation.

Telephone (Cellular) - Cellular telephones allow for added mobility and response effectiveness. Cellular phones are commonly maintained by certain Company personnel. Additional cellular phones can be secured in the event of a prolonged response operation.

Radios

Radios - Handheld and vehicle mounted radio sets are the most effective means of communication for the field response operation. The units are battery operated, multi-channelled, and have a typical range that will cover the area of the response operation. Additional radio sets and battery packs/charges will be necessary in the event of a prolonged response operation.

| Channel | Group | No. Units | Frequency (MHz) | |
|---------|-------|-----------|-----------------|---------|
| | | | Transmit | Receive |
| N/A | N/A | N/A | N/A | N/A |

Pagers

Pagers - Pagers are used for rapid notification to field personnel when radio and telephone resources are limited. Most response team members carry a pager.

Fax Machines

FAX Machines - FAX machines allow for a rapid transfer of information/ documentation such as status reports/updates, written notifications, and purchase orders.

Computers

Computers - Computers are commonly used in networks which allow access to various other locations and company personnel. Computers also speed the consolidation of information and preparation of written report.

Sirens

Sirens - Sirens are used to rapidly communicate basic emergency information Plant-wide. The system is loud enough to be heard by all personnel on the facility.

FIGURE A.1

| EMERGENCY RESPONSE EQUIPMENT | | | |
|---|---------------------------|---|-----------------|
| Date of Last Update: | | Last Inspection or Response Equipment Test Date: | |
| Inspected By: | | Last Deployment Drill Date: | |
| Inspection Frequency: | | Deployment Frequency: | |
| Fire/Rescue Equipment: | | | |
| Fire Fighting and Rescue Equipment | | | |
| Type/Year | Operational Status | Quantity | Location |
| | | | |
| | | None | |
| | | | |

FIGURE A.2

| FACILITY RESPONSE EQUIPMENT | | | | | | |
|---|--------------------|----------|--|-------------------------------|---------------------|------------------------|
| Date of Last Update: | | | Last Inspection or Response Equipment Test Date: | | | |
| Inspected By: | | | Last Deployment Drill Date: | | | |
| Inspection Frequency: | | | Deployment Frequency: | | | |
| Hazardous Material/Oil Spill Equipment: | | | | | | |
| SKIMMERS/PUMPS | | | | | | |
| Type/Model/Year | Operational Status | Quantity | Capacity bbl/day | Daily Effective Recovery Rate | Storage Location(s) | Date Fuel Last Changed |
| | | | | | | |
| | | None | | | | |
| | | | | | | |

| FACILITY RESPONSE EQUIPMENT (Cont'd) | | | | |
|---|--------------------|--|------------------|---------------------|
| Date of Last Update: | | Last Inspection or Response Equipment Test Date: | | |
| Inspected By: | | Last Deployment Drill Date: | | |
| Inspection Frequency: | | Deployment Frequency: | | |
| Hazardous Material/Oil Spill Equipment: | | | | |
| BOOM | | | | |
| Type/Model/ Year | Operational Status | Size (Length) | Containment Area | Storage Location(s) |
| | | | | |
| | | None | | |
| | | | | |

| FACILITY RESPONSE EQUIPMENT (Cont'd) | | | | | | |
|---|--------------------|------------------|--|--------------------|---------------------|--------------|
| Date of Last Update: | | | Last Inspection or Response Equipment Test Date: | | | |
| Inspected By: | | | Last Deployment Drill Date: | | | |
| Inspection Frequency: | | | Deployment Frequency: | | | |
| Hazardous Material/Oil Spill Equipment: | | | | | | |
| CHEMICAL DISPERSANTS | | | | | | |
| Type | Operational Status | Quantity/ Amount | Date Purchased | Treatment Capacity | Storage Location(s) | Date Changed |
| | | | | | | |
| | | None | | | | |
| | | | | | | |

| FACILITY RESPONSE EQUIPMENT (Cont'd) | | | | |
|---|--------------------|----------|--|---------------|
| Date of Last Update: | | | Last Inspection or Response Equipment Test Date: | |
| Inspected By: | | | Last Deployment Drill Date: | |
| Inspection Frequency: | | | Deployment Frequency: | |
| Hazardous Material/Oil Spill Equipment: | | | | |
| DISPERSANT DISPENSING EQUIPMENT | | | | |
| Type/Year | Operational Status | Capacity | Storage Location(s) | Response Time |
| | | | | |
| | None | | | |
| | | | | |

| FACILITY RESPONSE EQUIPMENT (Cont'd) | | | | |
|---|--------------------|--|--------------------|------------------|
| Date of Last Update: | | Last Inspection or Response Equipment Test Date: | | |
| Inspected By: | | Last Deployment Drill Date: | | |
| Inspection Frequency: | | Deployment Frequency: | | |
| Hazardous Material/Oil Spill Equipment: | | | | |
| SORBENTS | | | | |
| Brand Name/Type | Operational Status | Size | Treatment Capacity | Storage Location |
| | | | | |
| | None | | | |
| | | | | |

| FACILITY RESPONSE EQUIPMENT (Cont'd) | | | |
|--|---------------------------|---|-------------------------|
| Date of Last Update: | | Last Inspection or Response Equipment Test Date: | |
| Inspected By: | | Last Deployment Drill Date: | |
| Inspection Frequency: | | Deployment Frequency: | |
| Hazardous Material/Oil Spill Equipment: | | | |
| HAND TOOLS | | | |
| Type/Year | Operational Status | Quantity | Storage Location |
| | | | |
| | None | | |
| | | | |

| FACILITY RESPONSE EQUIPMENT (Cont'd) | | | |
|--|---------------------------|---|-----------------------------------|
| Date of Last Update: | | Last Inspection or Response Equipment Test Date: | |
| Inspected By: | | Last Deployment Drill Date: | |
| Inspection Frequency: | | Deployment Frequency: | |
| Hazardous Material/Oil Spill Equipment: | | | |
| COMMUNICATION EQUIPMENT | | | |
| Type/Year | Operational Status | Quantity | Storage Location(s)/Number |
| | None | | |
| | | | |

| FACILITY RESPONSE EQUIPMENT (Cont'd) | | | |
|---|--------------------|--|------------------|
| Date of Last Update: | | Last Inspection or Response Equipment Test Date: | |
| Inspected By: | | Last Deployment Drill Date: | |
| Inspection Frequency: | | Deployment Frequency: | |
| Hazardous Material/Oil Spill Equipment: | | | |
| PERSONAL PROTECTIVE EQUIPMENT | | | |
| Type/Year | Operational Status | Quantity | Storage Location |
| | None | | |
| | | | |

| FACILITY RESPONSE EQUIPMENT (Cont'd) | | | |
|---|--------------------|--|------------------|
| Date of Last Update: | | Last Inspection or Response Equipment Test Date: | |
| Inspected By: | | Last Deployment Drill Date: | |
| Inspection Frequency: | | Deployment Frequency: | |
| Hazardous Material/Oil Spill Equipment: | | | |
| OTHER EQUIPMENT | | | |
| Type/Year | Operational Status | Quantity | Storage Location |
| | | | |
| | None | | |
| | | | |

**FIGURE A.3
CONTRACTED RESPONSE RESOURCES**

| USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATION (OSRO) | | | | | | | |
|---|---------------|------------------|-------------------------------|----|----|----|-------------|
| OSRO Name | Response Time | Environment Type | Facility Classification Level | | | | High Volume |
| | | | MM | W1 | W2 | W3 | |
| National Response Corporation (NRC) | 1 Hour | River/Canal | Y | Y | Y | Y | No |
| | | Inland | Y | Y | Y | Y | |

Note: Classification ratings taken from the USCG's internet site

www.uscg.mil/hq/nsfweb/nsfcc/ops/ResponseSupport/RRAB/osroclassifiedguidelines.asp

**FIGURE A.4
USCG OSRO CLASSIFICATIONS**

The USCG has classified OSROs according to their response capabilities, within each Captain of the Port (COTP) zone, for vessels and for facilities in four types of environments. Response capabilities are rated MM, W1, W2, or W3 as described below.

| MINIMUM EQUIPMENT REQUIREMENTS FOR OSRO CLASSIFICATIONS | | | | |
|--|-------------------------------------|-----------|--|--|
| Classification | Resource Quantity Guidelines | | Maximum Facility Response Times | Maximum Vessel Response Times |
| Rivers/Canals | | | | |
| MM | Protective Boom: | 4,000*ft | High Volume Ports: 6 hours Other Ports: 12 hours | High Volume Ports: 12 hours Other Ports: 24 hours |
| W 1 | Protective Boom: | 25,000*ft | High Volume Ports: 12 hours Other Ports: 24 hours | High Volume Ports: 12 hours Other Ports: 24 hours |
| W 2 | Protective Boom: | 25,000*ft | High Volume Ports: 30 hours Other Ports: 36 hours | High Volume Ports: 36 hours Other Ports: 48 hours |
| W 3 | Protective Boom: | 25,000*ft | High Volume Ports: 54 hours Other Ports: 60 hours | High Volume Ports: 60 hours Other Ports: 72 hours |
| Great Lakes | | | | |
| MM | Protective Boom: | 6,000*ft | All Ports: 6 hours | All Ports: 12 hours |
| W 1 | Protective Boom: | 30,000*ft | High Volume Ports: 12 hours Other Ports: 24 hours | High Volume Ports: 12 hours Other Ports: 24 hours |
| W 2 | Protective Boom: | 30,000*ft | All Ports: 36 hours | All Ports: 42 hours |
| W 3 | Protective Boom: | 30,000*ft | All Ports: 60 hours | All Ports: 66 hours |

The USCG has classified OSROs according to their response capabilities, within each Captain of the Port (COTP) zone, for vessels and for facilities in four types of environments. Response capabilities are rated MM, W1, W2, or W3 as described below.

| MINIMUM EQUIPMENT REQUIREMENTS FOR OSRO CLASSIFICATIONS | | | | |
|--|-------------------------------------|-----------------------------|---|---|
| Classification | Resource Quantity Guidelines | | Maximum Facility Response Times | Maximum Vessel Response Times |
| Inland | | | | |
| MM | Protective Boom: | 6,000*ft | | |
| | EDRC: TSC: | 1,200 bbls 2,400 bbls | High Volume Ports: 6 hours Other Ports: 12 hours | High Volume Ports: 12 hours Other Ports: 24 hours |
| W 1 | Protective Boom: | 30,000* ft | | |
| | EDRC: TSC: | 12,500 bbls 25,000 bbls | High Volume Ports: 12 hours Other Ports: 24 hours | High Volume Ports: 12 hours Other Ports: 24 hours |
| W 2 | Protective Boom: | 30,000* ft | | |
| | EDRC: TSC: | 25,000 bbls 50,000 bbls | High Volume Ports: 30 hours Other Ports: 36 hours | High Volume Ports: 36 hours Other Ports: 48 hours |
| W 3 | Protective Boom: | 30,000* ft | | |
| | EDRC: TSC: | 50,000 bbls 100,000 bbls | High Volume Ports: 54 hours Other Ports: 60 hours | High Volume Ports: 60 hours Other Ports: 72 hours |
| Nearshore | | | | |
| MM | Protective Boom: | 8,000* ft | | High Volume Ports: 12 hours Other Locations: 24 hours (for open ocean, plus travel time from shore) |
| | EDRC: TSC: | 1,200 bbls 2,400 bbls | High Volume Ports: 6 hours Other Ports: 12 hours | |
| W 1 | Protective Boom: | 30,000* ft | | |
| | EDRC: TSC: | 12,500 bbls 25,000 bbls | High Volume Ports: 12 hours Other Ports: 24 hours | High Volume Ports: 12 hours Other Locations: 24 hours |
| W 2 | Protective Boom: | 30,000* ft | | |
| | EDRC: TSC: | 25,000 bbls 50,000 bbls | High Volume Ports: 30 hours Other Locations: 36 hours | High Volume Ports: 36 hours Other Locations: 48 hours |
| W 3 | Protective Boom: | 30,000* ft | | |
| | EDRC: TSC: | 50,000 bbls 100,000 bbls | High Volume Ports: 54 hours Other Locations: 60 hours (for open ocean, plus travel time from shore) | High Volume Ports: 60 hours Other Locations: 72 hours (for open ocean, plus travel time from shore) |

The USCG has classified OSROs according to their response capabilities, within each Captain of the Port (COTP) zone, for vessels and for facilities in four types of environments. Response capabilities are rated MM, W1, W2, or W3 as described below.

| MINIMUM EQUIPMENT REQUIREMENTS FOR OSRO CLASSIFICATIONS | | | | |
|--|-------------------------------------|-----------------------------|--|--|
| Classification | Resource Quantity Guidelines | | Maximum Facility Response Times | Maximum Vessel Response Times |
| Offshore | | | | |
| MM | Protective Boom: | 8,000* ft | | |
| | EDRC: TSC: | 1,200 bbls 2,400 bbls | High Volume Ports: 6 hours Other Ports: 12 hours | High Volume Ports: 12 hours Other Ports: 24 hours |
| W 1 | Protective Boom: | 15,000* ft | | |
| | EDRC: TSC: | 12,500 bbls 25,000 bbls | High Volume Ports: 24 hours Other Ports: 48 hours | High Volume Ports: 24 hours Other Ports: 48 hours |
| W 2 | Protective Boom: | 15,000* ft | | |
| | EDRC: TSC: | 25,000 bbls 50,000 bbls | High Volume Ports: 30 hours Other Ports: 36 hours | High Volume Ports: 36 hours Other Ports: 48 hours |
| W 3 | Protective Boom: | 15,000* ft | | |
| | EDRC: TSC: | 50,000 bbls 100,000 bbls | High Volume Ports: 54 hours Other Ports: 60 hours | High Volume Ports: 60 hours Other Ports: 72 hours |
| Open Ocean | | | | |
| MM | Protective Boom: | 0 ft | | |
| | EDRC: TSC: | 1,200 bbls 2,400 bbls | High Volume Ports: 6 hours Other Ports: 12 hours | High Volume Ports: 12 hours Other Locations: 24 hours |
| W 1 | Protective Boom: | 0 ft | | |
| | EDRC: TSC: | 12,500 bbls 25,000 bbls | High Volume Ports: 6 hours Other Ports: 12 hours | High Volume Ports: 12 hours Other Locations: 24 hours |
| W 2 | Protective Boom: | 0 ft | | |
| | EDRC: TSC: | 25,000 bbls 50,000 bbls | High Volume Ports: 30 hours Other Locations: 36 hours | High Volume Ports: 36 hours Other Locations: 48 hours |
| W 3 | Protective Boom: | 0 ft | | |
| | EDRC: TSC: | 50,000 bbls 100,000 bbls | High Volume Ports: 54 hours Other Locations: 60 hours | High Volume Ports: 60 hours Other Locations: 72 hours |

**FIGURE A.5
OSRO CONTRACTS**

[Click to view the file - NRC Contract 11 12 2009 13 7 52.pdf](#)



APPENDIX B

WORST CASE DISCHARGE ANALYSIS AND SCENARIO

B.1 [Introduction](#)

B.2 [Response Planning Volume Calculations](#)

B.3 [Response Capability Scenarios](#)

[Small/Average Most Probable Discharge](#)

[Medium/Maximum Most Probable Discharge](#)

[EPA Worst Case Discharge](#)

[DOT/PHMSA Worst Case Discharge](#)

B.4 [Planning Distance Calculation](#)

Table B-1 [EPA/USCG Tables for Worst Case Discharge Response Resources
Determination and Removal Capacity Planning](#)

B.1 INTRODUCTION

The Premcor Hammond Terminal is classified as a "Complex Facility".

"Complex Facility" means a facility possessing a combination of transportation-related and non-transportation-related components that is subject to the jurisdiction of more than one Federal agency under section 311(j) of the Clean Water Act (CWA).

Complex Facilities must perform discharge calculations for each jurisdictional agency and plan for the largest Worst Case Discharge Volume pursuant to the respective regulations. The discharge volume calculations are described as follows:

EPA Discharge Volume Calculation

- **Worst Case Discharge (WCD)**
100% of the largest single tank
- **Medium Discharge (MD)**
Discharge greater than 2,100 gallons (50 Bbls) and less than or equal to 36,000 gallons (857 Bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD
- **Small Discharge (SD)**
Discharge of less than or equal to 2,100 gallons (50 Bbls), not to exceed the WCD

DOT - PHMSA Discharge Volume Calculation

- **Worst Case Discharge(WCD)**
The largest volume (Bbls) of the following:
 - *Pipeline's maximum release time (hrs), plus the maximum shutdown response time (hrs), multiplied by the maximum flow rate (Bbls/hr.), plus the largest line drainage volume after shutdown of the line section.*

-- OR --

 - *Largest foreseeable discharge for the line section is based on the maximum historic discharge, if one exists, adjusted for any subsequent corrective action or preventative action taken.*

-- OR --

 - *Capacity of the single largest breakout tank or battery of tanks within a single secondary containment system, adjusted for the capacity or size of the secondary containment system.*

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

$$\text{OSR} = \text{WCD} * \% \text{ Oil on Shore} * \text{Emulsification Factor}$$

Planning Volume for On-Water Recovery (OWR)

$$\text{OWR} = \text{WCD} * \% \text{ Recovered Floating Oil} * \text{Emulsification Factor}$$

Recovery Capacity (RC)

$$\text{RC} = \text{OWR} * \text{On-Water Recovery Resource Mobilization Factors}$$

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables. The actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

B.2 RESPONSE PLANNING VOLUME CALCULATIONS

Assumptions and factors are provided in 40 CFR 112 and Appendix C to 33 CFR Part 154 for Worst Case Discharge resources and removal capacity planning determination. This information is summarized in the table entitled "EPA/USCG Tables for Worst Case Discharge Response Resources Determination and Removal Capacity Planning".

Response planning volume calculations were developed using the largest Worst Case Discharge for each of the oil groups. These calculations are summarized herein. The results, as shown in the summary below, provide the WCD planning volume and are used in the subsequent response resource calculation.

| Discharge Scenario | Potential Oil Group | Planning Volumes (bbls) | | |
|--------------------------------|---------------------|-------------------------|-----------|-----------------|
| | | EPA | DOT/PHMSA | Complex Maximum |
| Small / Average Most Probable | 1 | 50 | N/A | 50 |
| Medium / Maximum Most Probable | 1 | 857 | N/A | 857 |
| Worst Case | 1 | (b) (3), (b) (7)(F) | | |

TABLE B-1

**EPA/USCG TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING**

| Spill Location Sustainability of on-water oil recovery | Rivers & Canals | | | Nearshore/Inland/Great Lakes | | |
|---|--------------------------|-----------------------------|-------------------|------------------------------|-----------------------------|-------------------|
| | 3 Days | | | 4 Days | | |
| Oil Group | % Natural Dissipation | % Recovered Floating Oil | % Oil On Shore | % Natural Dissipation | % Recovered Floating Oil | % Oil On Shore |
| 1. Non-persistent oils | 80 | 10 | 10 | 80 | 20 | 10 |
| 2. Light Crudes | 40 | 15 | 45 | 50 | 50 | 30 |
| 3. Medium crudes and fuels | 20 | 15 | 65 | 30 | 50 | 50 |
| 4. Heavy crudes and fuels | 5 | 20 | 75 | 10 | 50 | 70 |

EMULSION FACTORS

| NON-PERSISTENT OIL | |
|--------------------|-----|
| Group 1 | 1.0 |
| PERSISTENT OIL | |
| Group 2 | 1.8 |
| Group 3 | 2.0 |
| Group 4 | 1.4 |
| Group 5 | 1.0 |

RESPONSE CAPABILITY CAPS (bbls/day)

(Maximum Required Recovery levels)

| AREA | TIER 1 | TIER 2 | TIER 3 |
|-------------------|--------|--------|--------|
| Rivers and Canals | 1,875 | 3,750 | 7,500 |
| Great Lakes | 6,350 | 12,300 | 25,000 |
| Inland/Nearshore | 12,500 | 25,000 | 50,000 |

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

| AREA | TIER 1 | TIER 2 | TIER 3 |
|------------------------------|--------|--------|--------|
| River | .30 | .40 | .60 |
| Inland/Nearshore Great Lakes | .15 | .25 | .40 |

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

| AREA | TIER 1 | TIER 2 | TIER 3 |
|-------------------------|--------|--------|--------|
| Higher volume port area | 6 | 30 | 54 |
| All Other | 12 | 36 | 60 |

Premcor Hammond Terminal

Response Planning Volume Calculations for DOT:

| Location Data | | | |
|---|----------------------|--------|---------------------|
| Location Type | Nearshore/ Inland | | |
| Port Type | Non-High Volume Area | | |
| WCD Product Type | Gasoline | | |
| Product Group | 1 | | |
| PHMSA WCD Volume (bbls) | (b) (3), (b) (7)(F) | | |
| Discharge Volumes/Calculations | | | |
| | | | |
| Worst Case Discharge - Based on PHMSA criteria (bbls) | | | (b) (3), (b) (7)(F) |
| Selected Calculation Factors (Based on EPA Tables) | | | |
| | | | |
| Removal Capacity Planning Volume - Percent Natural Dissipation | | | 80% |
| Removal Capacity Planning Volume - Percent Recovered Floating Oil | | | 20% |
| Removal Capacity Planning Volume - Percent Oil Onshore | | | 10% |
| | | | |
| Emulsification Factor | | | 1 |
| | | | |
| Tier 1 - On Water Oil Recovery Resource Mobilization Factor | | | 15% |
| Tier 2 - On Water Oil Recovery Resource Mobilization Factor | | | 25% |
| Tier 3 - On Water Oil Recovery Resource Mobilization Factor | | | 40% |
| Response Planning Volume Calculation | | | |
| | | | |
| On-Water Recovery Volume (bbls) | | | 12,000 |
| Shoreline Recovery Volume (bbls) | | | 6,000 |
| Shoreline Cleanup Volume (bbls) | | | 6,000 |
| | | | |
| | Tier 1 | Tier 2 | Tier 3 |
| On-Water Recovery Cpcty (bbls/day) | 1,800 | 3,000 | 4,800 |
| Shallow Water Resp Cpblty (bbls/day) | 360 | 600 | 960 |
| Storage Capacity (bbls/day) | 3,600 | 6,000 | 9,600 |
| On-Water Response Caps (bbls/day) | 12,500 | 25,000 | 50,000 |
| Additional Response Req'd (bbls/day) | 0 | 0 | 0 |
| Response Time (hrs) | 12 | 36 | 60 |

Premcor Hammond Terminal

Response Planning Volume Calculations for EPA:

| Location Data | | | |
|---|-------------------------------------|--------|--------|
| Location Type | Nearshore/ Inland | | |
| Port Type | Non-High Volume Port or Great Lakes | | |
| WCD Product Type | Gasoline | | |
| Product Group | 1 | | |
| Capacity of the Largest Single Tank (bbls) | (b) (3), (b) (7)(F) | | |
| Discharge Volumes/Calculations | | | |
| Average Most Probable or Small Discharge (bbls) | 50 | | |
| Maximum Most Probable or Medium Discharge (bbls) | 857 | | |
| Worst Case Discharge - Based on EPA criteria (bbls) | (b) (3), (b) (7)(F) | | |
| EPA WCD Calculation: 100% * Capacity of the Largest Single Tank | | | |
| Selected Calculation Factors (Based on EPA Tables) | | | |
| Removal Capacity Planning Volume - Percent Natural Dissipation | 80 | | |
| Removal Capacity Planning Volume - Percent Recovered Floating Oil | 20 | | |
| Removal Capacity Planning Volume - Percent Oil Onshore | 10 | | |
| Emulsification Factor | 1 | | |
| Tier 1 - On Water Oil Recovery Resource Mobilization Factor | 15% | | |
| Tier 2 - On Water Oil Recovery Resource Mobilization Factor | 25% | | |
| Tier 3 - On Water Oil Recovery Resource Mobilization Factor | 40% | | |
| Response Planning Volume Calculation | | | |
| On-Water Recovery Volume (bbls) | 40,000 | | |
| Shoreline Recovery Volume (bbls) | 20,000 | | |
| Shoreline Cleanup Volume (bbls) | 20,000 | | |
| | Tier 1 | Tier 2 | Tier 3 |
| On-Water Recovery Cpcty (bbls/day) | 6,000 | 10,000 | 16,000 |
| Shallow Water Resp Cpblty (bbls/day) | 1,200 | 2,000 | 3,200 |
| Storage Capacity (bbls/day) | 12,000 | 20,000 | 32,000 |
| On-Water Response Caps (bbls/day) | 12,500 | 25,000 | 50,000 |
| Additional Response Req'd (bbls/day) | 0 | 0 | 0 |
| Response Time (hrs) | 12 | 36 | 60 |

B.3 RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Failure of manifold, mechanical loading arm, other transfer equipment, or hoses, as appropriate.
- Tank overfill and/or failure.
- Piping line, valve, or flange leak and/or rupture.
- Tank truck and/or tank car loading overfill and/or failure.
- Explosion or fire.
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers).

Events and conditions that pose a substantial threat of a Worst Case Discharge might include:

- Tank and associated piping fire.
- Catastrophic tank shell failure.
- Natural disaster induced tank shell or major piping failure.

A sudden release of tank contents due to the above potential threats could result in a breach of the tank basin secondary containment.

Actions to prevent or mitigate a Worst Case Discharge due to the above potential threats include:

- Periodic inspection of the tank to confirm integrity.
- Periodic inspection of the tank basin secondary containment to confirm integrity.
- Preventive maintenance as appropriate of the tank and associated piping.
- Training of facility personnel on the proper procedures in event of a natural disaster to minimize the potential impact.

Abnormal operations, which could result in a substantial threat of a worst case discharge, may include:

- Unintended closure of valves.
- Pressure differential exceeds or drops below the normal operating limits.
- Loss of communications.
- Operations of any safety device (i.e., relief valve or rupture disc).

If any of these events occur, the affected system will be investigated, corrective action initiated, and the situation monitored by pipeline personnel. All corrective actions will be performed by qualified personnel appropriate to the task.

The response actions to each of these scenarios are outlined in Section 3. The response resources, including detail on equipment and manpower, are identified in Appendix A. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Figures 2.2 and 2.5.

Small/Average Most Probable Discharge = 50 Bbls (EPA)

A small discharge at this Terminal is considered to be a discharge that does not exceed 50 barrels (2,100 gallons).

Description

This size discharge would most likely occur due to minor equipment failures in conjunction with human error (chain reaction). Examples may include, but not limited to:

- Pump seal leak
- Truck loading rack hose rupture
- Valve leak
- Container rupture
- Storage spill

The most likely location for a discharge of this size would be leaking Facility piping and would be gasoline.

This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge.

Prevention

This size discharge would likely be noticed quickly and appropriate cleanup measures taken. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). For releases to the ground only, the QI/IC will identify sites accessible to a vacuum truck so that the released product can be recovered. If the release reaches navigable waters due to adverse weather conditions, the QI/IC will direct the OSRO to deploy containment or deflection boom as appropriate.

Additional Comments

While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the Facility could be diverted to the product tanks that are not at maximum capacity. Spills that enter the bar ditch can be handled by response contract vacuum truck, absorbent pad and boom, or other equipment.

The closest body of navigable water is the Lake George Canal (see Figure 6.5) 3,500 feet north of the Facility. The storage tanks and the truck loading rack has adequate secondary containment so it is unlikely that a spill would reach the Lake George Canal or travel very far if it did. Therefore, the threat to sensitive areas (see Section 6) is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

Response Requirement

The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small Discharge. The response resources shall, as appropriate, include:

- 1,000' of containment boom and a means of deploying it within one (1) hour of the discovery of a spill.
- Oil recovery devices with an effective daily recovery capacity (50 bbls/day) equal to the amount of oil discharged in a *Small Discharge* which is available at the Facility within two (2) hours of the detection of an oil discharge.
- Oil storage capacity (100 bbls) for recovered oily material equivalent to twice the effective daily recovery rate.

Facility Response Resources/Capability

The Facility will respond to a **Small Discharge** with the manpower detailed in Figures 2.1 as well as local contract resources as detailed in Figure 2.2 and Appendix A.

Response Requirement

The Facility shall identify sufficient resources, by contract or other approved means, to respond to a small discharge. The response resources shall, as appropriate, include:

- 1,000' of containment boom and a means of deploying it within one (1) hour of the discovery of a spill.
- Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a *Small Discharge* or greater which is available at the Facility within two (2) hours of the detection of an oil discharge.
- Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate.

Facility Response Resources/Capability

The Facility will respond to a Small Discharge with the manpower detailed in Figures 2.2 and 4.1 as well as local contract resources as detailed in Appendix A.

- A 50 Bbl discharge typically will not escape the containment of the Facility.
- If a fifty (50) barrel discharge escaped the Facility it would flow to the east and pool in a low lying area along the adjacent railroad tracks. If vapor conditions permit, response personnel would block the drain area and attempt product recovery with vacuum trucks. The effectiveness of this would depend on the extent of storm water run-off.
- Product that could not be stopped in this manner would flow north.
- The East Ditch runs northward and passes through a culvert beneath 141st Street into a drainage channel through a wetland area north of the Terminal. The drainage channel and wetland discharge to the Lake George Canal. The canal enters the Indiana Harbor Canal, which flows into Lake Michigan. The culvert beneath 141st Street is normally submerged below the level of standing water in the ditch. A small oil spill will float on top of the water and typically be prevented from traveling north of 141st Street. If a large spill of product reached the ditch, oil could enter the culvert beneath 141st Street by displacing water.
- Oil containment and recovery devices can be secured from contract resources (with a minimum effective daily recovery capacity of 50 Bbls) and can be implemented at the Facility, as the situation demands.
- A minimum of 100 Bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage facilities, as the situation demands.
- Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.

Notes

- Equipment and personnel resources are detailed in Section 4.0 and Appendix A.
- Telephone notification and contact references are provided in Figures 2.1, 2.2, and 2.5.
- Response personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, and actual responses to spills.

Medium/Maximum Most Probable Discharge = 857 Bbls (EPA)

A medium discharge at this Facility is considered to be a discharge that does not exceed 857 barrels (36,000 gallons).

Description

This size discharge would most likely occur due to a major equipment failure in conjunction with product transfer (chain reaction). Examples may include, but not limited to:

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill or failure
- Pipeline manifold rupture

Because of dikes and other containment located throughout the Facility, it is very unlikely that the discharge would leave the Facility property or reach a navigable waterway before a spill containment could begin. Adverse weather conditions would increase the chances of a discharge entering the Lake George Canal; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for transfers to and from tanks (e.g. proper tank gauging procedures). This training includes what to do in the event of an unusual occurrence such as equipment rupture (i.e. how to transfer spilled material to the miscellaneous tank or product tanks).

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered, such as tank inspections and hydrostatic testings. Old or worn parts are replaced as needed.

Additional Comments**Immediate Action**

In the event of a medium size discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO to arrive, qualified Facility personnel would complete internal and external notifications. Diked area containment of large spills can be handled with the use of contractor vacuum trucks. Medium discharges resulting from tank failure would more than likely be contained by the dike.

The Facility sits approximately 3,500 feet southwest of the Lake George Canal so the potential exists for a spill to reach navigable water. However, there are no environmentally sensitive areas in close proximity (see Figure 6.3) to the Facility, so damage to sensitive habitat would be minimal. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power lines.

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium Discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to 50% of the *Medium Discharge* volume that is capable of arriving on scene within the required time limits. (see Recovery Times on Table B-1)
- Sufficient quantity of containment boom must arrive within the required time limits for oil collection and containment and for protection of fish and wildlife and sensitive environments, as appropriate. (see Recovery Times on Table B-1)
- Temporary storage capacity equal to twice the daily recovery capacity.

Facility Response Resources/Capability

The Facility will initially respond to a **Medium Discharge** with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization (s) (OSRO) as detailed in Figure 2.2 and Appendix A.

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a medium discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to 50% of the *Medium Discharge* volume must be capable of arriving on scene within 12 hours.
- Sufficient quantity of containment boom must arrive within 12 hours for oil collection and containment and for protection of fish and wildlife and sensitive environments, as appropriate.
- Temporary storage capacity equal to twice the daily recovery capacity must be available.

Facility Response Resources/Capability

The Facility will initially respond to a *Medium Discharge* with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization (s) (OSRO) and will arrive within 12 hours.

- Oil recovery devices with an effective daily recovery capacity of 428 Bbls (50% of the Medium Discharge volume) secured from the OSRO(s) will be on scene within 12 hours.
- 857 Bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage facilities.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive areas will be secured from the OSRO(s) in the event that the spill escapes the boundaries of the Facility and impacts the storm water drainage channels and/or the Grand River, which flows to the north.

Notes

- Equipment and personnel resources are detailed in Section 4.0 and Appendix A.
- Telephone notification and contact references are provided in Figures 2.1, 2.2, and 2.5.
- Spill response personnel, including Facility members, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, HAZWOPER training, and other PREP training.

EPA Worst Case Discharge (b) (3), (b) (7)(F)

ge at this Facility is considered to be discharge that exceeds (b) (3), (b) (7)(F)

(b) (3), (b) (7)(F)

This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to:

- Tank fire
- Earthquake-induced spills
- Catastrophic tank shell failure
- Tornado-induced spills
- Pipeline manifold rupture

Diking and containment areas are located throughout the Facility. For a discharge this size to reach a navigable waterway, or leave the Facility property, diking would have to be damaged or destroyed (breached).

Prevention

For a worst case discharge caused by a natural disaster, preparedness is more appropriate than prevention. The Facility employees receive training periodically on the proper procedures to deal with a natural disaster. Employees are also trained in steps to follow if the Facility must be evacuated (due to a tank fire or other emergency). In addition, preventive maintenance of tanks is performed at regularly scheduled intervals to ensure that any weaknesses are discovered.

Additional Comments

Worst Case Discharge and Adverse Weather

Calculation of the planning volume for a worst-case discharge is provided in this Appendix. It should be noted that it is not practical to consider all the variables associated with different weather scenarios so the planning distance could alter slightly. Severe rain events and associated flooding would also increase the chances of an oil spill from leaving the property.

Probable chain reactions of failures would be induced by the weather conditions. They would include, but not be limited to, fires, health hazards, and discharges of more than one product.

Worst Case Spill Pathway Scenario

In the event of tank rupture, the product may splash over the dike wall and enter the bar ditch, which is located adjacent to the Facility.

For a spill that is confined to the land along the pathway, Facility personnel would have at least two (2) options by which to contain the spill:

- Dams
- Trenches

Protection of Groundwater

If the groundwater is near the surface, a possible solution might be a trench or an existing ditch. The back side of the trench or ditch could be lined with a polyethylene sheeting material which can serve to collect product for transfer to the oil/water separator. The groundwater would then be allowed to continue in its movement. If, however, the contaminated area is large and slow moving, an open trench may not be the answer. A deflecting barrier could be used as a structure which is more permanent than a trench or ditch and that moves the skimmed floating product to an upright recovery culvert with slits cut in the sides to allow the product to move inside and filter out the rocks.

Deep groundwater recovery could be accomplished by using a cone of depression type of pumping method. By placing a well suction beneath the floating product and producing a funnel type of effect, the product could be brought to a general area. This cone of depression forms a greater area of product. The second pump shaft could then be placed in this region.

Ditch Containment

A spill may also be contained in storm water ditches. Some practical containment methods are:

- A board skimming device
- Earth dam and weir
- Wire fence filter boom
- Culvert weir
- Under flow dam

These methods are simple to construct and effective for containment.

Spills That Reach the Waterway

The Facility is located near the Lake George Canal. The priority during larger spills is to prevent oil from reaching the waterway. Oil spill response organizations (OSROs) that are under contract with the Facility will be the initial responders. Some of these OSROs can initiate initial boom deployment and anchoring at the waterway within one hour. A Damage Assessment by the state and federal trustees would more than likely follow the response.

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Worst Case Discharge to the maximum extent practicable. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of the WCD Response Planning Volume Calculation or the response caps. If the daily recovery rate exceeds the applicable contracting caps (see Table), then the Facility must identify additional resources equal to twice the cap or the amount necessary to reach the calculated planning volume.
- Temporary storage capacity equal to twice the daily recovery capacity.
- At least 20% of the on-water response equipment should be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of areas of environmental sensitivity or economic importance.
- Identify resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline.
- The above Response Planning Volume requirements, including response times, are based on Attachment E-1 of Appendix E to 40 CFR Part 112. (see Recovery Times on Table B-1)

Facility Response Resources/Capability

The Facility will respond to a Worst Case Discharge (WCD) initially with a similar response as identified for a Small or Medium Discharge. Facility Management will initiate “response actions” located in Section 3 immediately upon discovering a spill. Additional OSRO(s) will be activated as the situation demands. The response resources will be capable of arriving within the required response tiers and will include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of the WCD Response Planning Volume Calculations (table located in this Appendix) or the response caps will be secured from the OSRO(s) and other Company resources. Any amount in excess of the required caps will be contracted for and responded to as part of the same response effort.
- Temporary storage capacity equal to twice the daily recovery capacity will be secured from OSRO(s), other Company resources, or made available within the Facility's storage facilities.
- At least 20% of the on-water response equipment secured from the OSRO(s) and other Company resources will be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive environments and socio-economic sensitivities will be secured from the OSRO(s) and other Company resources, if available
- Resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the shoreline will be secured from the OSRO(s) and other company resources, if available.

Notes

- Equipment and personnel resources are detailed in Section 4.0 and Appendix A.
- Telephone notification and contact references are provided in Figures 2.1, 2.2 and 2.5.
- Spill response personnel, including Facility members, are continually trained to respond to worst case discharges through regularly scheduled PREP exercises (i.e. TTX, QI notification, equipment deployment), discharge prevention/safety meetings, FRP reviews, and HAZWOPER training. A minimum of one tabletop exercise (TTX) in a triennial cycle will involve a Worst Case Discharge scenario.

DOT/PHMSA Worst Case Discharge = (b) (3), (b) (7)(F)

Description

The worst case discharge is based on the capacity of the pipeline and the length of time to detect a release and time required to immediately stop the transfer by shutting off the pumps.

The pipeline maximum release time (time to detect a release) is estimated to be 0.5 hours. The maximum shutdown response time is 0.03 hours after detection of the release. During product transfers, operators at both the Alsip Distribution Center and Hammond Terminal continually monitor pressure gauges. Pipeline pumps can be immediately shutdown by switches in the pump stations when a spill is detected.

(b) (3), (b) (7)(F)

WCD = (Spill discovery time + shut down time) X (flow rate in bbls/hr) + (line drainage)

Worst Case Discharge

(b) (3), (b) (7)(F)

Worst Case Discharge

Maximum shutdown response time would not change due to adverse weather conditions. The maximum flow rate of 3,000 bbl/hr applies to all types of petroleum product the pipeline can transfer.

Volume

The following calculations are used to determine the worst case discharge:

(b) (3), (b) (7)(F)

The maximum shutdown response time would not change due to adverse weather conditions since operators monitor the pipeline transfers at the controls and communicate by radio.

Pipeline's maximum release time (hrs), plus the maximum shutdown response time (hrs), multiplied by the maximum flow rate (bbls / hr), plus the largest line drainage volume after shutdown of the line section.

(b) (3), (b) (7)(F)

Capacity of the single largest breakout tank or battery of tanks within a single secondary containment system, adjusted for the capacity or size of the secondary containment system

| <u>Spill Prevention Measures</u> | <u>Percent Reduction Allowed</u> |
|--|----------------------------------|
| Secondary containment capacity greater than 100% capacity of tank and designed according to NFPA 30. | 50% |
| Tank built, rebuilt, and repaired according to API Std 620/650/653. | 10% |
| Overfill protection | 5% |
| Designed according to API RP 2350 | |
| Testing/cathodic protection designed according to API Std 650/651/653. | 5% |
| Maximum allowable credit or reduction | 70 (sum of above) |

Largest Breakout Tank * Maximum Allowable Credit = **Breakout Tank Worse Case Discharge**

Worst Case Discharge = (Greater of Breakout or Pipeline WCD) **(b) (3), (b) (7)(F)**

B.4 PLANNING DISTANCE CALCULATION

Non-Persistent oils - planning distance = 5 miles ebb and flood tide.



APPENDIX C

HAZARD EVALUATION

C. 1 [Hazard Identification](#)

C. 2 [Discharge Detection](#)

C. 3 [Facility Self-Inspections](#)

C. 4 [Analysis of the Potential for a Spill](#)

C. 5 [Reportable Spill History](#)

Table C-1 [Reportable Oil Spill History](#)

Table C-2 [Potential Spill Sources and Container Identification Tables](#)

Figure C.1 [Tank Inspection Checklist](#)

Figure C.2 [Secondary Containment Inspection Checklist](#)

C.1 HAZARD IDENTIFICATION

Loading / Unloading of Transportation Vehicles

The Facility conducts loading of tank trucks only (no rail or vessels operations). These operations are typically conducted as follows:

Truck Loading:

- Loading Bays: Two (2)
- Loading Rate: 550 - 800 gpm (per truck/per loading spot)
- Truck Capacity: 9,000 gallons (maximum)
- Simultaneous Operations: One (1) truck loading at a time
- Loads per day: 15 to 18 trucks per day (average)
- Products: Various grades of Gasoline and Fuel Oil

Truck Unloading:

- Gasoline Additives and Ethanol are unloaded periodically at the Facility across the truck rack.

Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Pipeline transfer operations
- Truck loading operations
- Truck unloading operation

Work such as piping replacement/repair is rare, and would only be done on portions of the system that are isolated from the active system.

Transfer Piping

Visual observations during normal routine operations are made of the exposed portions of pipelines to locate signs of corrosion leaks, coating loss or excessive wear. In cases of small leaks, pipeline clamps are used for temporary repair until a more permanent repair can be made. Records on all pipeline failures are kept maintained and are available to DOT/PHMSA upon request.

Based on sound engineering judgment the pipeline is replaced or repaired as necessary.

Visual Inspection:

- The pipeline and adjacent areas are visually inspected for leaking oil by either aerial observation or ground patrol with special attention given to locations where the pipeline crosses highways, railroad tracks, and bodies of water. These inspections are conducted periodically.

Cathodic Inspection:

- All pipelines are coated and have cathodic protection. These pipelines are subject to periodic cathodic protection inspections.

External Corrosion Control:

- Whenever buried portions of the pipeline are exposed for any reason, the pipe will be examined for evidence of external corrosion, coating deterioration, and cathodic protection effectiveness. If corrosion is found, a detailed evaluation will be performed to determine the extent of corrosion.
- Exposed portions of the pipeline are painted and/or coated for corrosion protection.

Valve Maintenance:

- All valves are inspected annually to ensure proper working condition.

Secondary Containment Drainage

Facility bulk oil and oil product storage containers are situated within secondary containment constructed of compacted earthen or concrete containment walls. The containment areas are designed as follows:

- All bulk storage containers are completely surrounded by compacted earthen dike walls with earthen floors.
- All bulk storage container installations are constructed so that a secondary means of containment is provided.
- The containment areas are designed to contain the entire contents of the largest single container plus sufficient freeboard to allow for precipitation.
- Based on personnel interviews and field observations, containment areas are sufficiently impervious to contain a discharge from an aboveground facility with line of sight inspection capability (tanks, containers, piping, etc.) until clean up occurs.
- The Facility has a strong tank integrity program which significantly increases the chances of detecting corrosion or anomalies in the tank shell before it becomes compromised. More detail on the tank integrity program is provided later in this section.
- Discharges would be detected during weekday visual inspections and while conducting normal operations. In the event of a discharge, response and recovery operations, including use of contract resources, would commence immediately upon detection as described in the Integrated Contingency Plan.
- The Facility is equipped with a series of monitoring wells. The monitoring wells are utilized for monitoring the potential impact or movement of a discharge below the surface and hence provides an additional means of detecting discharges.
- Facility personnel maintain a high level of training and awareness on the Facility's Integrated Contingency Plan (ICP) and are capable of implementing this contingency plan in the event of a discharge.

Security

(b) (3), (b) (7)(F)



Hazard Identification Tank Tables

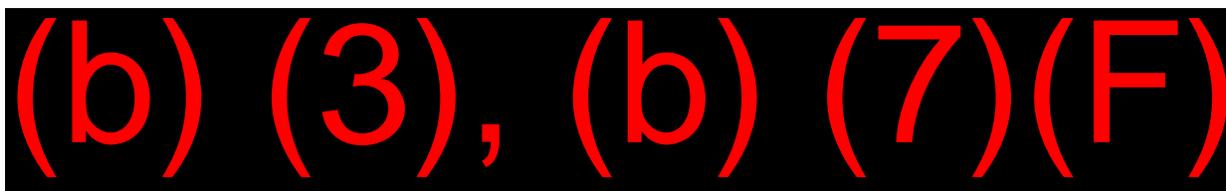
Hazard Identification Tank Tables are located in Table C-2.

C.2 DISCHARGE DETECTION

The Facility has a discharge detection program which is intended to limit the effects of a hazardous material release.

Detection by Personnel

Discharges would be detected during weekday visual inspections and while conducting normal operations. In the event of a discharge, response and recovery operations, including use of contract resources, would commence immediately upon detection as described in the Integrated Contingency Plan.



C.3 FACILITY SELF-INSPECTIONS

Written procedures for and record of the Facility inspections of tanks and secondary containment are documented in this section. The Facility self-inspection requires two steps: 1) a checklist of items to inspect, and 2) a method of recording the actual inspection findings. All inspection records are maintained for a minimum of 5 years.

Tank Inspections

Terminal personnel visually observe the condition of ASTs, foundations, secondary containment areas, pumps, piping, valves, connections, and the loading rack during walk throughs of the Terminal performed each shift. Drips, corrosion, or fatigue which could indicate the potential for leaks are reported to the QI. Observed signs of leakage will be evaluated. Spillage will be immediately cleaned up and equipment repaired as necessary to prevent future spills. If a problem is detected, a record of the type of problem and actions taken to fix the damaged or leaking equipment will be made on the Inspection Log. Entries of daily observations are not made on the log if no problems are detected.

FIGURE C.1 TANK INSPECTION CHECKLIST

The tanks are inspected against the following checklist at a minimum:

- Check tanks for leaks, specifically looking for:
 - Drip marks
 - Discoloration of tanks
 - Puddles containing spilled or leaked material
 - Corrosion
 - Cracks
 - Localized dead vegetation

- Check foundation for:
 - Cracks
 - Discoloration
 - Puddles containing spilled or leaked material
 - Settling
 - Gaps between tank and foundations
 - Damage caused by vegetation roots

- Check piping for:
 - Droplets of stored material
 - Discoloration
 - Corrosion
 - Bowing of pipe between supports
 - Evidence of stored material seepage from valves or seals
 - Localized dead vegetation

Records of the inspections are maintained at the Facility. These records are maintained for a period of five (5) years and are available for review at any time at the Facility Office.

FIGURE C.2 SECONDARY CONTAINMENT INSPECTION CHECKLIST

The Secondary Containment systems are inspected against the following checklist:

- Dike or berm system
 - Level of precipitation in dike/available capacity
 - Operational status of drainage valves
 - Dike or berm permeability
 - Debris
 - Erosion
 - Permeability of the earthen floor of diked area
 - Location/status of pipes, inlets, drainage beneath tanks, etc.

- Secondary containment
 - Cracks
 - Discoloration
 - Presence of spilled or leaked material (standing liquid)
 - Corrosion
 - Valve conditions

- Retention and drainage ponds (as applicable)
 - Erosion
 - Available capacity
 - Presence of spilled or leaked material
 - Debris
 - Stressed vegetation

Records of the inspections are maintained in the Facility. These records are maintained for a period of five (5) years and are available for review at any time at the Facility Office.

C.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The potential for a spill has been analyzed and deemed to be present, but unlikely. The probability of tank failure for single-wall storage tanks is 1.0×10^{-4} /tank-year (U.S. DOT, FEMA, and U.S. EPA Handbook of Chemical Hazard Analysis Procedures). The facility has 15 single-wall tanks which gives a spill frequency of 0.0015 spills/year.

Oil Spill History

Refer to the Reportable Oil Spill History portion of this Appendix for details concerning spill history for the life of the Facility.

Tank Age

Refer to the Hazard Identification Table located in this Appendix for the year of construction of each of the bulk storage containers at the Facility.

Horizontal Range of a Spill

Secondary containment dikes at the Facility will in most cases prevent the horizontal migration of a spill. Attenuations of any spilled material which might escape a diked area would be accomplished through the implementation of spill response activities by: (1) Facility personnel, or if necessary, (2) the spill response contractor listed in this Plan.

Vulnerability to a Natural Disaster

All storage tanks and ancillary piping are fabricated in compliance with rigorous nationally recognized design specifications. The specifications include wind-load allowances (must withstand minimum 100 mph wind) and recognition of any applicable seismic considerations. These factors minimize the risk of vulnerability to natural disasters, including tornadoes.

Other Factors

Other factors such as unstable soils, earthquakes, or Karst topography do not concern the Facility area. The nearest fault line is the New Madrid fault line and the last earthquake that was felt in Indiana occurred in 1968. Though limestone does lace the Indiana geology, the Facility rests on shale. None of the above listed factors has resulted in a discharge originating from the Facility. In addition to the above mentioned factors, it should also be noted that Facility inspection and response drills, as well as Standard Operating Procedures (SOPs) for loading operations and the like, contribute to minimization of spill potential at the Hammond Terminal.

C.5 REPORTABLE OIL SPILL HISTORY

NRC Reports subject to OPA 90 regulations as of the publication date of this Plan are summarized in the following table. Details obtained from Incident Reports are maintained on-site.

The reports contain the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s)
- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.
- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

TABLE C-1

| REPORTABLE OIL SPILL HISTORY | |
|--|--|
| Date of discharge: | October 22, 1994 |
| Location of discharge: | N/A |
| Discharge cause(s): | Overtipping container |
| Material(s) discharged: | Red Dye Additive |
| Amount discharged: | One (1) gallon |
| Amount of discharge that reached navigable waters: | None |
| Amount recovered: | All |
| Effectiveness and capacity of secondary containment: | N/A |
| Clean-up actions taken: | Soil impacted by additive excavated for disposal |
| Steps taken to reduce possibility of recurrence: | N/A |
| Total storage capacity of the tank(s) or impoundment(s) from which the material discharged: | Five (5) gallon container |
| Enforcement actions: | N/A |
| Effectiveness of monitoring equipment: | N/A |
| Description of how spill was detected: | Immediately reported by Operator |

| REPORTABLE OIL SPILL HISTORY | |
|--|--|
| Date of discharge: | November 4, 1994 |
| Location of discharge: | Dike 7 |
| Discharge cause(s): | Overflow of the Loading Rack Spill Collection Tank |
| Material(s) discharged: | Mixture of Gasoline, Diesel and Water |
| Amount discharged: | Approximately 200 gallons |
| Amount of discharge that reached navigable waters: | None |
| Amount recovered: | All product recovered |
| Effectiveness and capacity of secondary containment: | Adequate |
| Clean-up actions taken: | N/A |
| Steps taken to reduce possibility of recurrence: | Automatic pumps to start on high level in tank |
| Total storage capacity of the tank(s) or impoundment(s) from which the material discharged: | 4,000 gallons |
| Enforcement actions: | N/A |
| Effectiveness of monitoring equipment: | N/A |
| Description of how spill was detected: | N/A |

| REPORTABLE OIL SPILL HISTORY | |
|--|---|
| Date of discharge: | December 24, 1994 |
| Location of discharge: | Cut Shack Building near the Pipeline Manifold |
| Discharge cause(s): | Faulty valve left open |
| Material(s) discharged: | Fuel Oil |
| Amount discharged: | 50 gallons |
| Amount of discharge that reached navigable waters: | None |
| Amount recovered: | All |
| Effectiveness and capacity of secondary containment: | No secondary containment |
| Clean-up actions taken: | N/A |
| Steps taken to reduce possibility of recurrence: | Faulty valve replaced |
| Total storage capacity of the tank(s) or impoundment(s) from which the material discharged: | N/A |
| Enforcement actions: | N/A |
| Effectiveness of monitoring equipment: | N/A |
| Description of how spill was detected: | N/A |

| REPORTABLE OIL SPILL HISTORY | |
|--|--|
| Date of discharge: | June 26, 1996 |
| Location of discharge: | Truck Loading Rack |
| Discharge cause(s): | Broken sheer pin on a coupler |
| Material(s) discharged: | Diesel Fuel |
| Amount discharged: | 2,300 gallons |
| Amount of discharge that reached navigable waters: | None |
| Amount recovered: | All |
| Effectiveness and capacity of secondary containment: | 250 gallons exceeded capacity of secondary containment |
| Clean-up actions taken: | Booms placed in drainage ditch |
| Steps taken to reduce possibility of recurrence: | N/A |
| Total storage capacity of the tank(s) or impoundment(s) from which the material discharged: | Approximately 2,000 gallons |
| Enforcement actions: | N/A |
| Effectiveness of monitoring equipment: | N/A |
| Description of how spill was detected: | N/A |

| REPORTABLE OIL SPILL HISTORY | |
|--|-------------------------------------|
| Date of discharge: | February 7, 1996 |
| Location of discharge: | Tank 9 Receiving / Discharging Line |
| Discharge cause(s): | Leaking gasket on below grade valve |
| Material(s) discharged: | Unleaded Gasoline |
| Amount discharged: | Approximately 40 gallons |
| Amount of discharge that reached navigable waters: | None |
| Amount recovered: | All |
| Effectiveness and capacity of secondary containment: | Adequate |
| Clean-up actions taken: | Products recovered |
| Steps taken to reduce possibility of recurrence: | N/A |
| Total storage capacity of the tank(s) or impoundment(s) from which the material discharged: | N/A |
| Enforcement actions: | N/A |
| Effectiveness of monitoring equipment: | N/A |
| Description of how spill was detected: | N/A |

TABLE C-2

| POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION (Any container that stores oil) | | | | | | |
|---|--|--------------------------------------|-------------------------------|--|------------|--|
| Container I.D. | Substance Stored (Oil & Haz. Substance) | Average Quantity Stored (Gallons) | Maximum Capacity (Gallons) | Container Type (i.e. floating roof, fixed roof, etc.) | Year Built | Secondary Containment Capacity (Volume - Gallons) |
| BULK STORAGE CONTAINERS | | | | | | |
| 1 | Fuel Oil | (b) (3), (b) (7)(F) | | Fixed Roof | 1958 | (b) (3), (b) (7)(F) |
| 2 | Transmix | | | Internal Floating | 1958 | |
| 3 | Gasoline | | | Internal Floating | 1958 | |
| 4 | OOS | | | Fixed Roof | 1958 | |
| 5 | Gasoline | | | External Floating | 1968 | |
| 8 | OOS | | | Internal Floating | 1974 | |
| 9 | Fuel Oil | | | Internal Floating | 1974 | |
| 7 | Gasoline | | | External Floating | 1970 | |
| 12 | Octel Starreon | | | Horizontal | Unk. | |
| 10 (CA-1) | OOS | | | Internal Floating | 1953 | |
| 11 (CA-2) | Ethanol | | | Internal Floating | 2005 | |
| 6 | Gasoline | | | Internal Floating | 1971 | |
| 13 | Additive for Diesel MCC Wax Modifier | | | Horizontal | Unk. | |
| 14 | Red Dye (Additive) | | | Horizontal | Unk. | |
| 15 | Octel Starreon | | | Horizontal | Unk. | |
| Comments | | | | | | |

| POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION (Any container that stores oil) | | | | | | |
|--|--|--|---|--|-------------------|--|
| Container I.D. | Substance Stored <i>(Oil & Haz. Substance)</i> | Average Quantity Stored <i>(Gallons)</i> | Maximum Capacity <i>(Gallons)</i> | Container Type <i>(i.e. floating roof, fixed roof, etc.)</i> | Year Built | Secondary Containment Capacity <i>(Volume - Gallons)</i> |
| OIL FILLED OPERATIONAL EQUIPMENT | | | | | | |
| There is no regulated Operational Equipment at this facility. | | | | | | |

Comments

| POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION (Any container that stores oil) | | | | | | |
|--|--|--|---|--|-------------------|--|
| Container I.D. | Substance Stored <i>(Oil & Haz. Substance)</i> | Average Quantity Stored <i>(Gallons)</i> | Maximum Capacity <i>(Gallons)</i> | Container Type <i>(i.e. floating roof, fixed roof, etc.)</i> | Year Built | Secondary Containment Capacity <i>(Volume - Gallons)</i> |
| OIL FILLED MANUFACTURING EQUIPMENT | | | | | | |
| There is no regulated Manufacturing Equipment at this facility. | | | | | | |

Comments

| POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION (Any container that stores oil) | | | | | | |
|--|--|--|---|--|-------------------|--|
| Container I.D. | Substance Stored <i>(Oil & Haz. Substance)</i> | Average Quantity Stored <i>(Gallons)</i> | Maximum Capacity <i>(Gallons)</i> | Container Type <i>(i.e. floating roof, fixed roof, etc.)</i> | Year Built | Secondary Containment Capacity <i>(Volume - Gallons)</i> |
| COMPLETELY BURIED TANKS | | | | | | |
| There are no regulated Buried Containers at this facility. | | | | | | |

Comments

| POTENTIAL SPILL SOURCES | | | | | |
|---|--|--|---------------------------------------|---------------------|-------------------|
| SI Number | Substance Stored (Oil & Haz. Substance) | Average Quantity Stored (Gallons) | Maximum Capacity (Gallons) | Surface Area | Year Built |
| SURFACE IMPOUNDMENT | | | | | |
| There are no Surface Impoundments at this facility. | | | | | |

Comments

| STORAGE TANK FAILURE | | | |
|----------------------|--|-----------------|-------|
| Container I.D. | Substance Stored <i>(Oil & Haz. Substance)</i> | Date of Failure | Cause |



APPENDIX D

TRAINING AND DRILLS

- D.1 [General Training](#)
- D.2 [Hazwoper Training](#)
- D.3 [Response Team Training](#)
- D.4 [Response Team Exercises](#)
- D.5 [Purpose of Review and Evaluation](#)

D.1 GENERAL TRAINING

The Company provides training related to discharge prevention, testing and response, including measures to repair pipeline ruptures and mitigate discharges. The Training Methods address oil discharges from the pipeline from several perspectives: human health and safety, rupture control and repair operations, pollution control, and overall (crisis) management of the emergency.

D.2 HAZWOPER TRAINING***HAZWOPER (29 CFR 1910.120)***

OSHA HAZWOPER training requirements are shown in the table below.

| OSHA HAZWOPER TRAINING REQUIREMENTS | | |
|---|---------------------------------------|------------------|
| Responder Classification | Required Training Hours | Refresher |
| 29CFR 1910.120(q) Emergency Response | | |
| First Responder - Employee Awareness Level | 2 - 4 hrs demonstration of competency | Same |
| First Responder - Operations Level | 24 hrs plus competency | 8 hrs* |
| Incident Commander | 24 hrs plus competency | 8 hrs* |

* Or sufficient content and duration to maintain competency.

All personnel responding to an incident must satisfy the applicable HAZWOPER training requirements of 29 CFR 1910.120. Personnel are trained to the level of HAZWOPER necessary to perform their emergency response duties. Team members are required under state and federal regulations to have appropriate up-to-date HAZWOPER training necessary to function in their assigned positions. Refresher training or a demonstration of competency is required annually to maintain HAZWOPER qualifications.

D.3 RESPONSE TEAM TRAINING

Emergency Response Team

Federal and state regulations require that response team members maintain up-to-date HAZWOPER training necessary to function in their assigned positions. At a minimum, Team members will receive "First Responder Awareness Level" training. All personnel responding to an incident must satisfy the applicable HAZWOPER training requirements of 29 CFR 1910.120.

All response personnel shall know:

The characteristics and hazards of the oil discharged (Section 3.0).

The conditions that is likely to worsen emergencies, including the consequences of pipeline malfunctions, and the appropriate corrective actions.

The steps necessary to control any accidental discharge of oil and to minimize the potential for fire, explosion, toxicity or environmental damage (Section 3.0).

The proper firefighting procedures and use of equipment, fire suits, and breathing apparatus (Section 3.0).

All response team members (QI, AQI, Response Team) should review the appropriate parts of the Facility Response Plan whenever their job position or responsibilities change under the Plan. A copy of this Plan will be available at all times to team members.

Qualified Individuals

Persons designated in the Plan as Qualified Individuals (QI's) have received the necessary training required to fulfill their responsibilities as described in Section 4.2.

Various training programs are in place to furnish these Qualified Individuals with required training.

Qualified Individual personnel are provided general information regarding the background and requirements of OPA 90 and the contents/purpose of the facility's response plan. These individuals may also be assigned other responsibilities within the response, such as Incident Commander, and will receive additional training for those roles, as required.

Additional personnel will receive the same training and will act as alternates to ensure 24 hour availability.

Incident Management Team

Assigned IC team members will receive ICS training and may also receive supplemental training in other related general topics.

Incident Commander: IC is trained to assume control of an incident. Training includes the Company's Incident Command System, how to implement the Facility's Response Plan, the associated risks of employees working in chemical protective clothing, decontamination procedures, how to implement the local emergency response plan, and knowledge of the state emergency response plan and of the Federal Regional Response Team.

Other Response Support

Personnel from other aspects of the Response Team can be made available depending on the spill event.

Other personnel whose skills are needed temporarily to perform immediate emergency support work (such as dump truck drivers and crane operators) are not required to meet the training requirements discussed above. However, these personnel must be briefed on the potential hazards and the duties to be performed at the site before participating in response operations. They must also receive instruction in the use of any safety and personal protective equipment needed and on all other appropriate safety and health precautions.

Company and Other Specialist Support

Experts would provide technical advice or guidance during response to a spill incident. Examples of such specialists might include chemists, biologists, industrial hygienists, physicians, or others with skills useful during a spill response operation. Such persons must receive appropriate training or demonstrate competency in their specialty. There are no specific requirements on training content or hours of training for these persons. However, the training must be sufficient for the individuals to maintain competency in their specific area of expertise. Training and demonstration of competency for skilled support personnel and specialists should be documented.

Contractor Training

The Company also recognizes that contract personnel must also have sufficient training in responding to emergency situations in accordance with HAZWOPER training requirements. The Company communicates this training need to its key contractors during contract negotiations and often specifically spells out this requirement in its contracts. The Company also tends to use well-known spill response contractors whose reputation and experience levels help ensure personnel who respond will be trained to appropriate levels. If contractors sub-contract to labor pools, documentation as to the training of casual laborers will be required.

The Company does not intend to utilize volunteer labor during response activities.

However, should Unified Command specify the use of volunteers, the Training Coordinator will be responsible for training volunteers to the standards specified in 29CFR1910.120 (OSHA).

Training Records and Maintenance

Training records for team members will be maintained at the Facility according to Federal, State, and local government requirements. Records must be maintained for personnel as long as they have response duties in this plan.

D.4 RESPONSE TEAM EXERCISES

ERT/IMT members, government agencies, contractors, and other resources must participate in response exercises required by Federal, State, or local regulations and as detailed in the “National Preparedness for Response Exercise Program (PREP) Guidelines.” The Company will conduct announced and unannounced drills to maintain compliance. The following table lists the triennial exercise cycle for facilities (see PREP Guidelines for full details).

| TRIENNIAL CYCLE | | |
|------------------------|-------------------------------|--|
| Total Number | Frequency | Exercise Type/Description |
| 12 | Quarterly | QI Notification Exercise |
| 12 (optional) | Quarterly | Emergency Procedures Exercise |
| 6 | Semi-Annual (Annually-DOT) | Equipment Deployment Exercise (<i>Facility-owned equipment</i>) |
| 3 | Annual | Response Team Tabletop Exercise |
| 3 | Annual | Equipment Deployment Exercise (<i>facilities with OSRO-owned equipment</i>) |
| 3 | Annual | Unannounced Exercise (<i>not a separate exercise</i>) Actual response can be considered as an unannounced exercise. |

NOTE: All response plan components must be exercised at least once in the Cycle.

Quarterly QI Notification Exercise

- **Scope:** Exercise communication between facility personnel and the QI(s) and/or designated alternate(s). At least once each year, one of the notification exercises should be conducted during non-business hours.
- **Objective:** Contact must be made with a QI or designated alternate, as identified in the Plan.
- **General:** All personnel receiving notification shall respond to the notification and verify their receipt of the notification. Personnel who do not respond should be contacted to determine whether or not they received the notification.

Emergency Procedure Exercise (optional)

- **Scope:** Exercise the emergency procedures for the facility to mitigate or prevent any discharge or substantial threat of a discharge of oil or hazardous material from facility operational activities associated with oil transfers.
- **Objective:** Conduct an exercise of the facility's emergency procedures to ensure personnel knowledge of the actions to be taken to mitigate a spill. This exercise may be a walk-through of the emergency procedures.
- **Optional:** This is offered as an optional exercise to provide facilities with an exercise that may be conducted unannounced to fulfill the internal unannounced exercise requirement.

Semi-Annual/Annual Equipment Deployment Exercise (for facilities with equipment)

- **Scope:** Deploy and operate facility response equipment identified in the response plan. The equipment to be deployed must include the following, at a minimum:
 - 1,000 feet of representative type of boom;
 - one of each type of skimming system; or
 - the equipment necessary to respond to the facility's Small/Average Most Probable Discharge (AMPD), whichever is less.
- **Objective:** Demonstrate personnel's ability to deploy and operate response equipment. Ensure that the response equipment is in proper working order.
- **General:** The Facility may take credit for actual equipment deployment to a spill, or for training sessions, as long as the activities are properly documented.

Annual Equipment Deployment Exercise(OSRO-owned equipment)

- **Review:** The Facility should verify that the OSRO(s) has completed the equipment deployment exercise requirements and has maintained the necessary documentation. The OSRO may deploy equipment at any location, so long as it occurs within an operating environment similar to the Facility's.
- **Scope:** USCG certified OSRO's must ensure and document that an exercise or response has been conducted in each response area in which they are certified. Non-certified OSRO's must deploy and operate response equipment identified in this response plan. The equipment to be deployed must include the following, at a minimum:
 - 1,000 feet of each type of boom listed in the plan.
 - One of each type of skimming system listed in the plan.
- **Objective:** OSRO must demonstrate the ability of the personnel (OSRO) to deploy and operate response equipment (OSRO). Ensure that the response equipment (OSRO) is in proper working order.

Annual Response Team Tabletop Exercise

- **Scope:** Exercise the response team's organization, communication, and decision-making in managing a spill response. Each team identified within the plan must conduct an annual Response Team Tabletop Exercise.
- **Objective:** Exercise the response team in a review of the following:
 - Knowledge of the Plan.
 - Proper notifications.
 - Communications system.
 - Ability to access an OSRO.
 - Coordination of internal spill response personnel.
 - Review of the transition from a local team to a regional team.
 - Ability to effectively coordinate response activity with the National Response System (NRS) Infrastructure.
 - Ability to access information in the Area Contingency Plan.
- **General:** A minimum of one Response Team Tabletop Exercise in a triennial cycle will involve a Worst-Case Discharge scenario.

Unannounced Exercise

- An unannounced exercise is not a separate exercise. Any of the previously described exercises may be used as an unannounced exercise, except for the Quarterly QI Notification and annual OSRO-owned Equipment Deployment. An unannounced exercise is where the exercise participants do not have prior knowledge of the exercise, as would be the situation in an actual spill incident.

Government-Initiated Unannounced Exercise

- **Scope:** The Facility is required to participate in only one unannounced exercise every 36 months from the date of the last government-initiated unannounced exercise.
 - Exercises are limited to approximately four hours in duration.
 - Exercises would involve response to a Small/Average Most Probable Discharge scenario.
 - Exercise would involve equipment deployment to respond to a spill scenario.
- **Objective:** Conduct proper notifications to respond to unannounced scenario of a Small/Average Most Probable Discharge.
 - Demonstrate that the response is timely, conducted with an adequate amount of equipment for the scenario, and properly conducted.
- **General:** This exercise is only applicable to those facilities which are randomly chosen.

Area Exercises

- **Objective:** The purpose of the area exercise is to exercise the entire response community in a particular area. An area is defined as “that geographic area for which a separate and distinct Area Contingency Plan has been prepared, as described in OPA 90.” The response community includes the Federal, State, and local government and industry. The area exercises are designed to exercise the government and industry interface for spill response.
- **General:** The goal is to ensure that all areas of the country are exercised triennially. All of the area exercises will be developed by an exercise design team. The exercise design team is comprised of representatives from the Federal, State, and local government and industry. A Lead Plan Holder would lead each area exercise. The Lead Plan Holder is the organization (government or industry) that holds the primary plan that is exercised in the area exercise. The Lead Plan Holder would have the final word on designing the scope and scenario of the exercise.

Exercise Documentation

- All exercises should be documented and maintained at the facility; documentation should specify:
 - The type of exercise;
 - Date and time of the exercise;
 - A description of the exercise;
 - The objectives met in the exercise;
 - The components of the response plan exercised; and
 - Lessons learned.
- Exercise documentation should be kept on file for the required length of time depending on the regulating agency (three (3) years for the U.S. Coast Guard and/or DOT/PHMSA and five (5) years for the U.S. Environmental Protection Agency).

D.5 PURPOSE OF REVIEW AND EVALUATION

This section provides procedures and information useful to responders for post incident/exercise review and evaluation. Post incident/exercise reviews should be conducted in a timely manner following an incident/exercise. The Plan should be evaluated to determine its usefulness during the incident/exercise and appropriate revisions should be made. All incident/exercise documentation should be included in the Plan evaluation process.

Attendees

The following individuals should be in attendance at the Critique, as appropriate.

1. Emergency Response Coordinator
2. Incident Commander
3. Section Chiefs / Leaders
4. Safety Officers
5. Participating Managers / Supervisors
6. Representative from Environmental
7. Response Team Members
8. Designated Scribe
9. Facilitator / Discussion Leader
(To be appointed by the Emergency Response Coordinator)

Critique Tracking Number

1. A Critique Tracking Number must be obtained from the Safety Department Incident Investigation Tracker.
2. Once the Critique is completed, it will be circulated through the Managers for review and sign off.
3. Critiques will be posted for review.
4. All Critiques will be filed in the Safety Office by the Emergency Response Coordinator.

Agenda for Critique

The Critique should be considered by the following agenda.

Specific follow-up questions are listed following this agenda.

Notification

- Immediate area of the emergency
- Total Facility
- Community (as appropriate to the incident; could include notification of the appropriate agencies)
- ERT

Response to Notification

- Emergency Responders
- Total Facility
- Community (as appropriate)

Management of Incident (Incident Command Staff)

- Incident assessment of scene
- Security (of immediate area / reminder of plant)
- Communication / Information needs and flow
- Equipment / Training
- Medical Aspects
- Continuing Supplies / Manpower
- Cleanup / Decontamination
- All Clear

Outline of Review

Given below are items a team composed of outside people knowledgeable in spill response and key members of the response teams should examine. These questions are intended as guidelines only; many other questions are likely to be appropriate at each stage of a critique.

- **Detection**

- Was the spill detected promptly?
- How was it detected?
- By whom?
- Could it have been detected earlier? How?
- Are any instruments or procedures available to consider which might aid in spill detection?

- **Notification**

- Were proper procedures followed in notifying government agencies? Were notifications prompt?
- Was management notified promptly?
- Was management response appropriate?
- Was the Facility / Company notified promptly? If so, why, how, and who? If not, why not?

- **Assessment/Evaluation**

- Was the magnitude of the problem assessed correctly at the start?
- What means were used for this assessment?
- Are any guides or aids needed to assist spill evaluation?
- What sources of information were available on winds and on water currents?
- Is our information adequate?
- Was this information useful (and used) for spill trajectory forecasts? Were such forecasts realistic?
- Do we have adequate information on product properties?
- Do we need additional information on changes of product properties with time, i.e., as a result of weathering and other processes?

- **Mobilization**

- What steps were taken to mobilize spill countermeasures?
- What resources were used?
- Was mobilization prompt?
- Could it have been speeded up or should it have been?
- What about mobilization of manpower resources?
- Was the local spill cooperative used appropriately?
- How could this be improved?
- Was it appropriate to mobilize the Facility/company resources and was this promptly initiated?
- What other corporate resources are available and have they been identified and used adequately?

- **Response - Strategy**

- Is there an adequate spill response plan for the location?
- Is it flexible enough to cope with unexpected spill events?
- Does the plan include clear understanding of local environmental sensitivities?
- What was the initial strategy for response to this spill?
- Is this strategy defined in the spill plan?
- How did the strategy evolve and change during this spill and how were these changes implemented?
 - What caused such changes?
 - Are there improvements needed? More training?

- **Response - Resources Used**

- What resources were mobilized?
- How were they mobilized?
- How did resource utilization change with time? Why?
- Were resources used effectively?
 - Contractors
 - Government agencies
 - Company resources
 - Cooperatives
 - Volunteers
 - Consultants
 - Other (e.g., bird rescue centers)
- What changes would have been useful?
- Do we have adequate knowledge of resource availability?
- Do we have adequate knowledge of waste disposal capabilities?

- **Response - Effectiveness**

- Was containment effective and prompt?
- How could it have been improved?
- Should the location or the local cooperative have additional resources for containment?
- Was recovery effective and prompt?
- How could it have been improved?
- Should the location or the local cooperative have additional resources for recovery of spilled product?
- Was contaminated equipment disposed of promptly and safely?
- Was there adequate in-house product separation, recovery, and disposal?
- How could it have been improved?
- Was there adequate outside disposal resources available?

- **Command Structure**

- Who was initially in charge of spill response?
- What sort of organization was initially set up?
- How did this change with time? Why?
- What changes would have been useful?
- Was there adequate surveillance?
- Should there be any changes?
- Were communications adequate?
- What improvements are needed?
- How did the strategy evolve and change during this spill and how were these changes implemented?
- What caused such changes? Should financial procedures be developed to handle such incidents?

- **Measurement**

- Was there adequate measurement or estimation of the volume of product spilled?
- Was there adequate measurement or estimation of the volume of product recovered?
- Was there adequate measurement or estimation of the volume of product disposed of?
- Should better measurement procedures be developed for either phase of operations?
- If so, what would be appropriate and acceptable?

- **Government Relations**

- What are the roles and effects of the various government agencies which were involved?
- Was there a single focal point among the government agencies for contact?
- Were government agencies adequately informed at all stages?
- Should there have been better focus of communications to the agencies?
- Were government agencies adequately informed at all stages?
- Were too many agencies involved?

- Are any changes needed in procedures to manage government relations?
 - Examples of affected U.S. agencies (there may be others):
 - U.S. Coast Guard
 - Environmental Protection Agency
 - National Oceanic and Atmospheric Administration
 - Dept of Fish and Wildlife
 - State Parks
 - Harbors and Marinas
 - States
 - Cities
 - Counties
 - Was there adequate agreement with the government agencies on disposal methods?
 - Was there adequate agreement with the government agencies on criteria for cleanup?
 - How was this agreement developed?
 - Were we too agreeable with the agencies in accepting their requests for specific action items (e.g., degree of cleanup)?
 - Should there be advance planning of criteria for cleanup, aimed at specific local environmentally sensitive areas? (Such criteria should probably also be designed for different types of product.)

- **Public Relations**
 - How were relations with the media handled?
 - What problems were encountered?
 - Are improvements needed?
 - How could public outcry have been reduced? Was it serious?
 - Would it be useful to undertake a public information effort to "educate" reporters about product and effects to it if spilled?
 - These areas should be investigated shortly after the incident to assure that actions taken are fresh in people's minds.



APPENDIX E

DISPOSAL PLAN

[Click here to View](#)



APPENDIX F

SAMPLE MISCELLANEOUS FORMS

Caller Characteristics Checklist

[Click to view the file - Caller Characteristics Checklist 11 12 2009 13 40 20.pdf](#)

Department of Transportation Liquid Pipeline Accident Report

[Click to view the file - Department of Transportation Liquid Pipeline Accident Report 11 12 2009 13 40 36.pdf](#)

Dike Drain Checklist

[Click to view the file - Dike Drainage Checklist 11 12 2009 13 40 47.pdf](#)

Dike Drainage Report

[Click to view the file - Dike Drainage Report 11 12 2009 13 40 56.pdf](#)

Emergency Contacts (Display Conspicuously at Command Post)

[Click to view the file - Emergency Contacts \(Display Conspicuously at Command Post 11 12 2009 13 41 6.pdf](#)

Internal Exercise Documentation Form (Equipment Deployment Exercise)

[Click to view the file - Internal Exercise Documentation Form \(Semi-Annual\) Equipment Deployment Exercise 11 12 2009 13 41 36.pdf](#)

Internal Exercise Documentation Form (Spill Management Team Tabletop Exercise)

[Click to view the file - Internal Exercise Documentation Form \(Spill Management Team Tabletop Exercise\) 11 12 2009 13 41 49.pdf](#)

Notification Data Sheet

[Click to view the file - Notification Data Sheet 11 12 2009 13 41 59.pdf](#)

Premcor Activity Log

[Click to view the file - Premcor Activity Log 11 12 2009 13 42 11.pdf](#)

Qualified Individual (QI) Notification Exercise

[Click to view the file - Qualified Individual \(QI\) Notification Exercise \(Internal](#)

[ExerciseDocumentation\) 11 12 2009 13 42 22.pdf](#)

Response Team Tabletop Exercise (Internal Exercise Documentation)

[Click to view the file - Response Team Tabletop Exercise \(Internal Exercise Documentation\) 11 12 2009 13 42 32.pdf](#)

Revision Record

[Click to view the file - Revision Record 11 12 2009 13 42 41.pdf](#)

Sample Discharge Prevention Meeting Log

[Click to view the file - Sample Discharge Prevention Meeting Log 11 12 2009 13 43 0.pdf](#)

Sample Personnel Response Training Log

[Click to view the file - Sample Personnel Response Training Log 11 12 2009 13 43 21.pdf](#)

Secondary Containment Inspection Checklist

[Click to view the file - Secondary Containment Inspection Checklist 11 12 2009 13 43 32.pdf](#)

Storage Tank Monthly In-Service Inspection

[Click to view the file - Storage Tank Monthly In-Service Inspection 11 12 2009 13 43 44.pdf](#)

Tank Farm Drainage Procedures

[Click to view the file - Tank Farm Drainage Procedures 11 12 2009 13 43 56.pdf](#)

Tank High Level Alarm Systems Operations Check - Inspection Report Form

[Click to view the file - Tank High Level Alarm Systems Operations Check - Inspection Report Form 11 12 2009 13 44 7.pdf](#)

Tank Inspection Checklist

[Click to view the file - Tank Inspection Checklist 11 12 2009 13 44 17.pdf](#)

Telephone Bomb Threat Checklist

[Click to view the file - Telephone Bomb Threat Checklist 11 12 2009 13 44 24.pdf](#)

RSPA F-7000-1

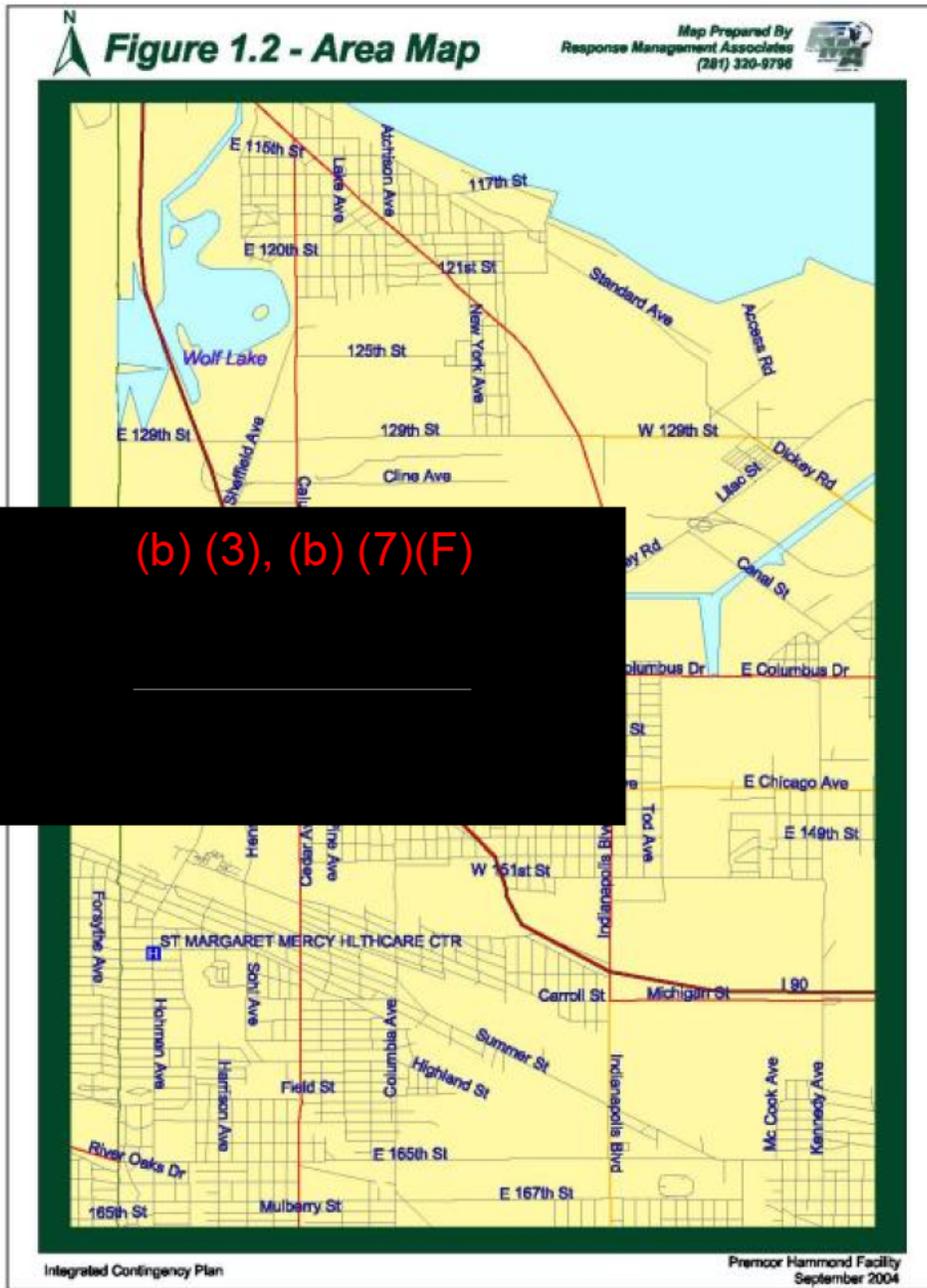
[Click to view the file - Liq accident 26 8 2010 10 12 32.pdf](#)

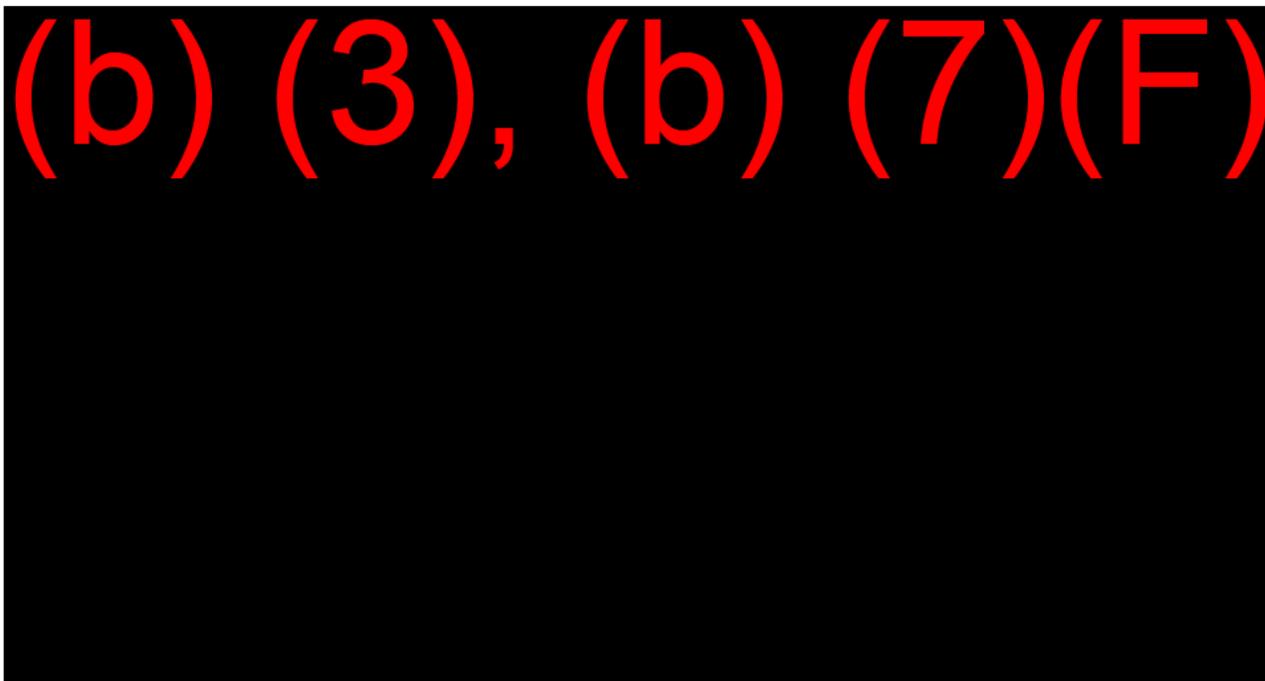


APPENDIX G

MAPS AND DIAGRAMS

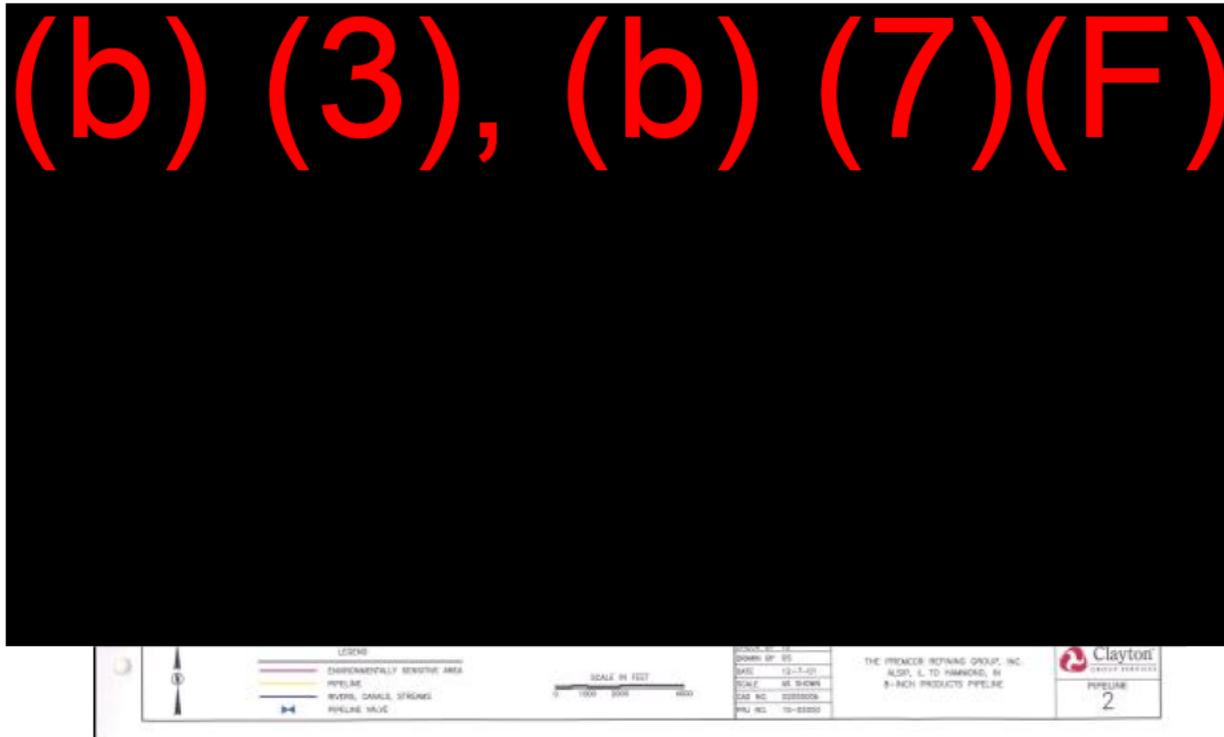
Area Map



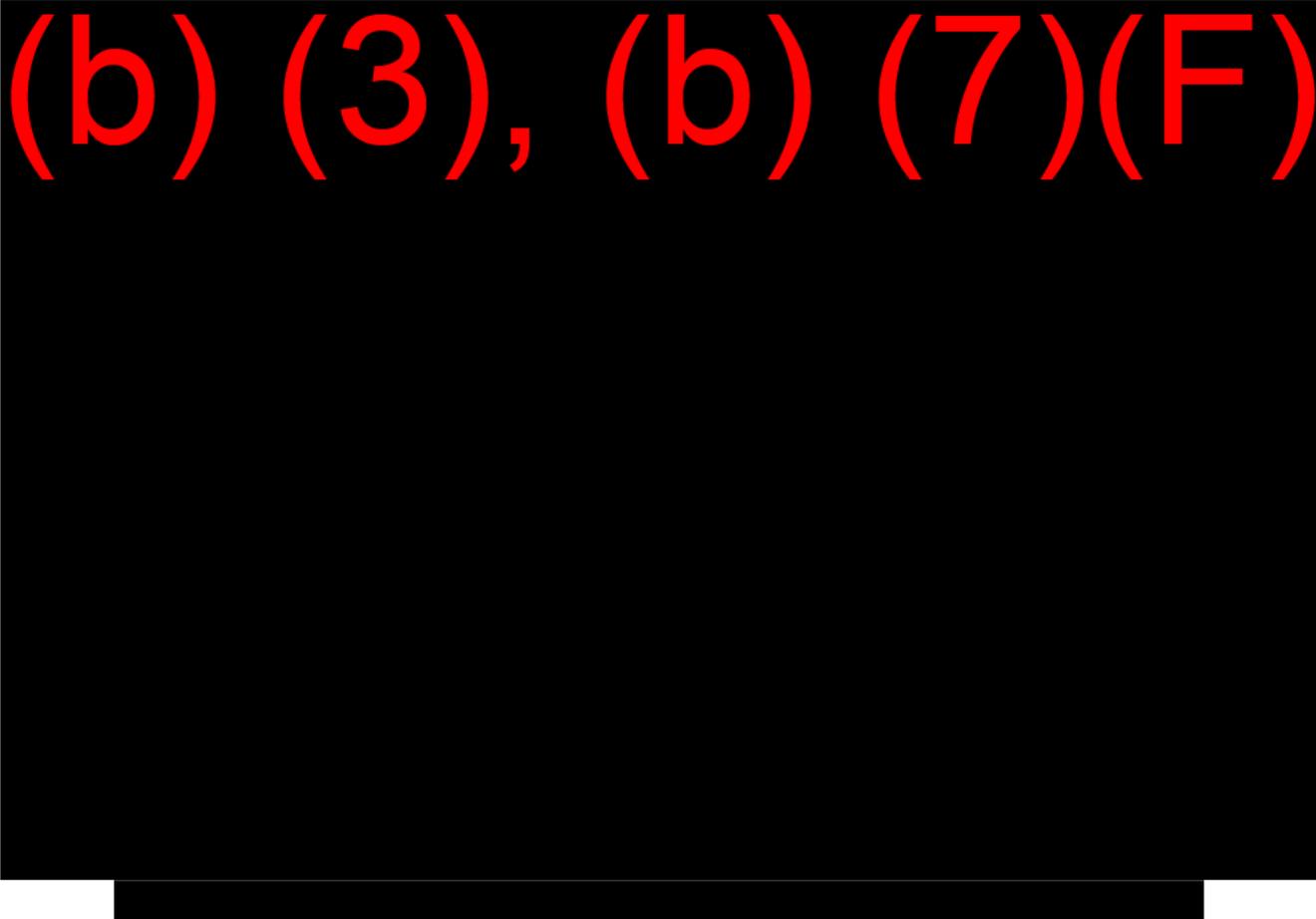


| | | | | | |
|------------------|---|--------------------------|----------------------------|------------------|---|
| Hammond Terminal | PRENOR PIPELINE COMPANY HAMMOND TERMINAL HAMMOND, INDIANA | 7836 Issue to MJDG | 2-12-07 RAG AS NOTED | FACILITY DIAGRAM |  Response Management Associates, Inc. 5551 Greenwood Lake Rd. Hammond, Indiana 46320 Phone 362-352-2500 |
|------------------|---|--------------------------|----------------------------|------------------|---|

Figure 2 Alsip to Hammond Pipeline

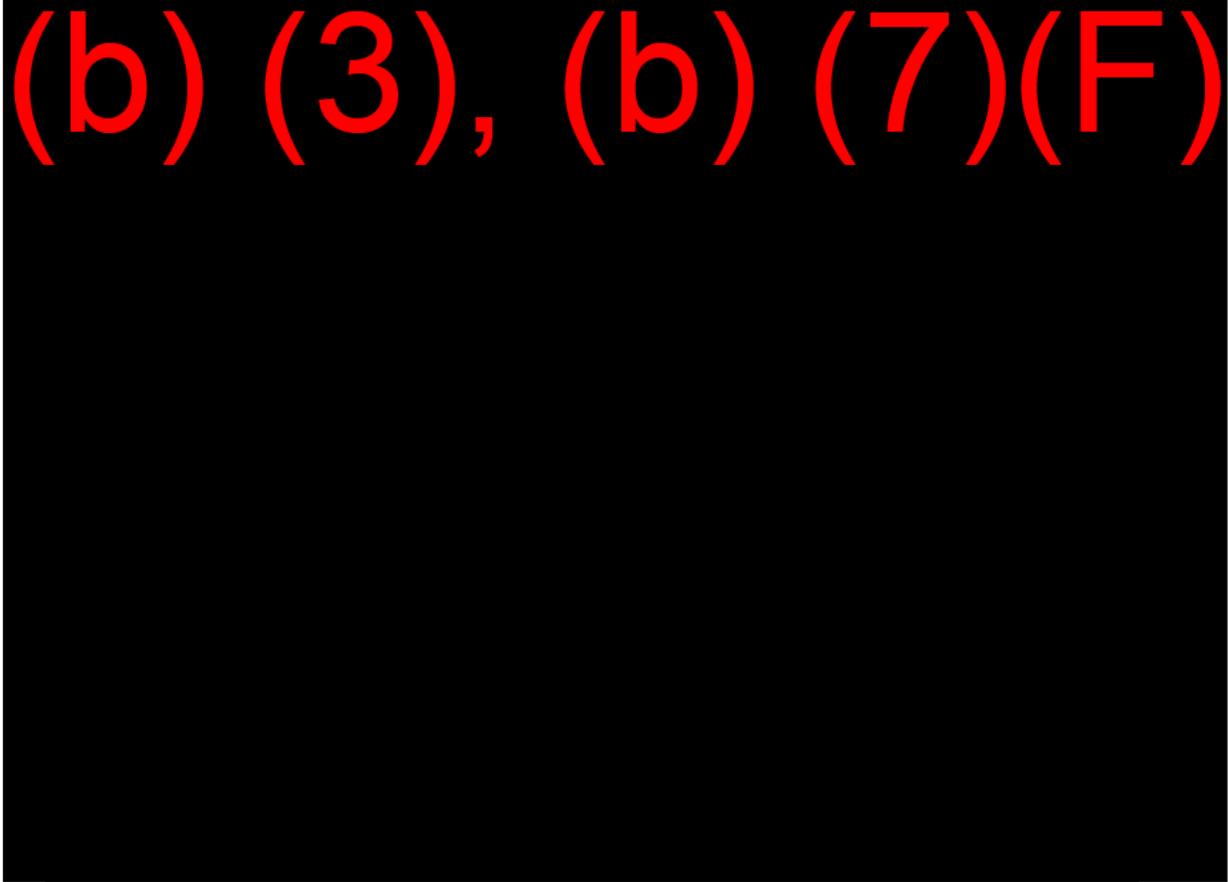


ENERGISTIX, INC - Alsip to Hammond Pipeline Map July 2004_Page_1



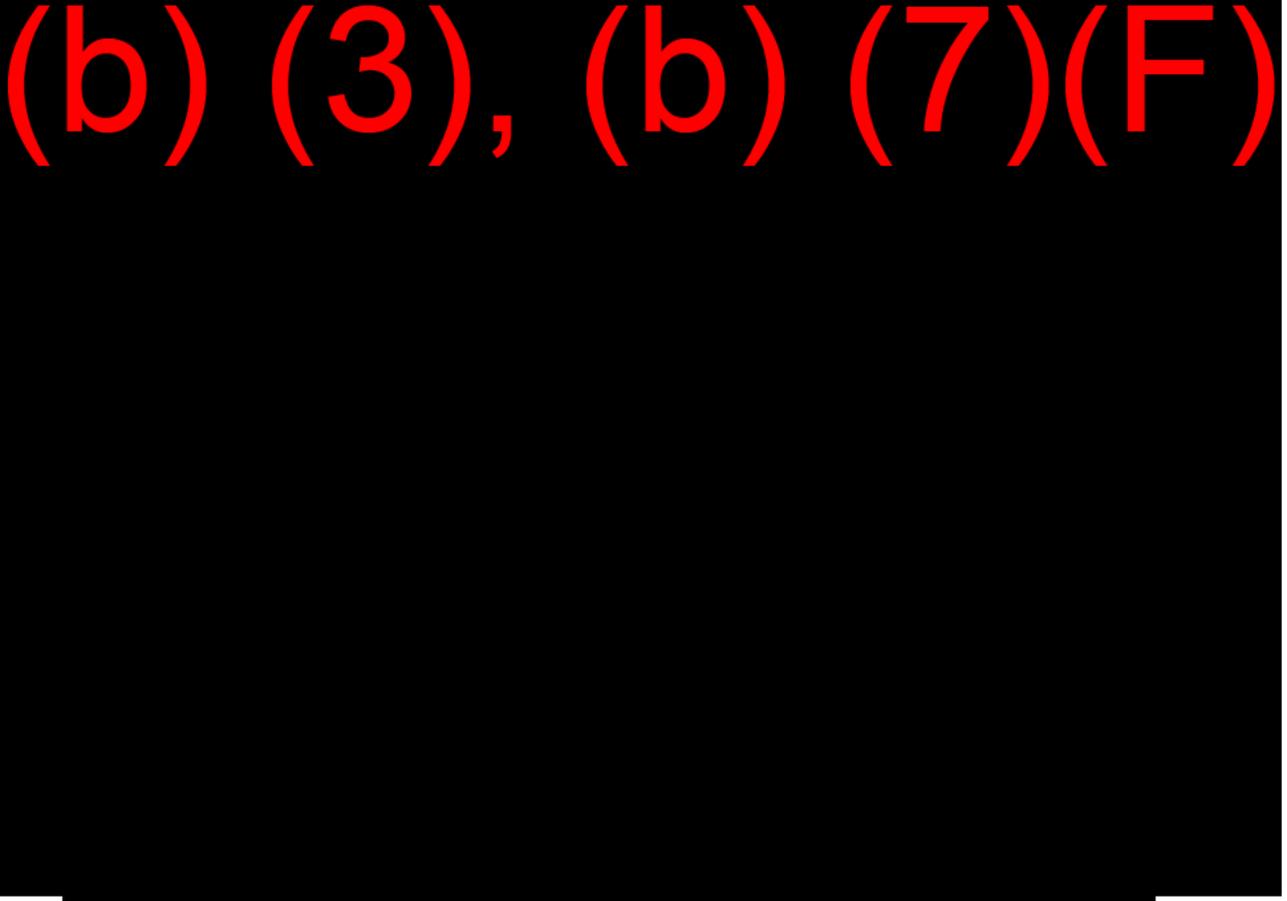
ENERGISTIX, INC - Alsip to Hammond Pipeline Map July 2004_Page_2

(b) (3), (b) (7)(F)

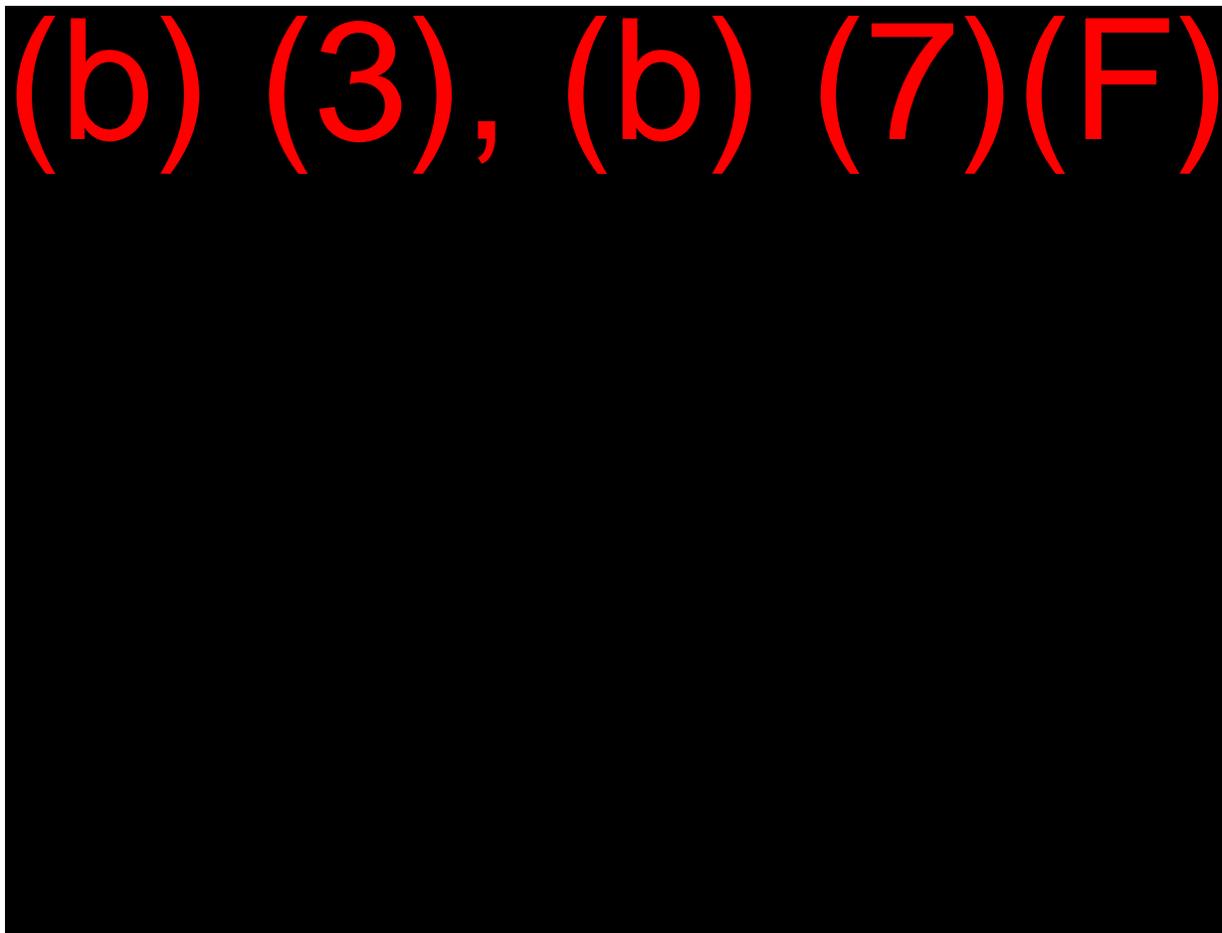


ENERGISTIX, INC - Alsip to Hammond Pipeline Map July 2004_Page_3

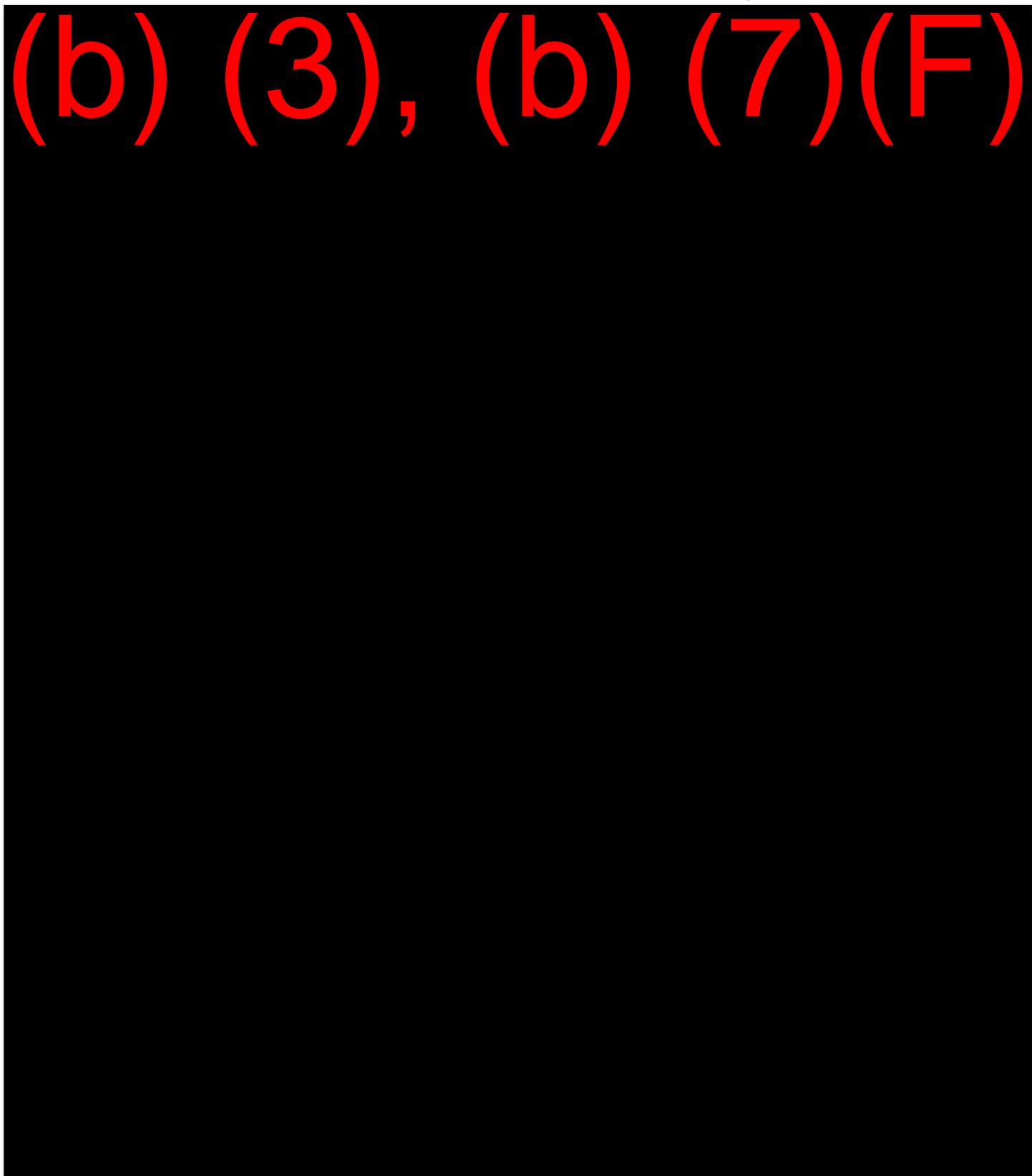
(b) (3), (b) (7)(F)



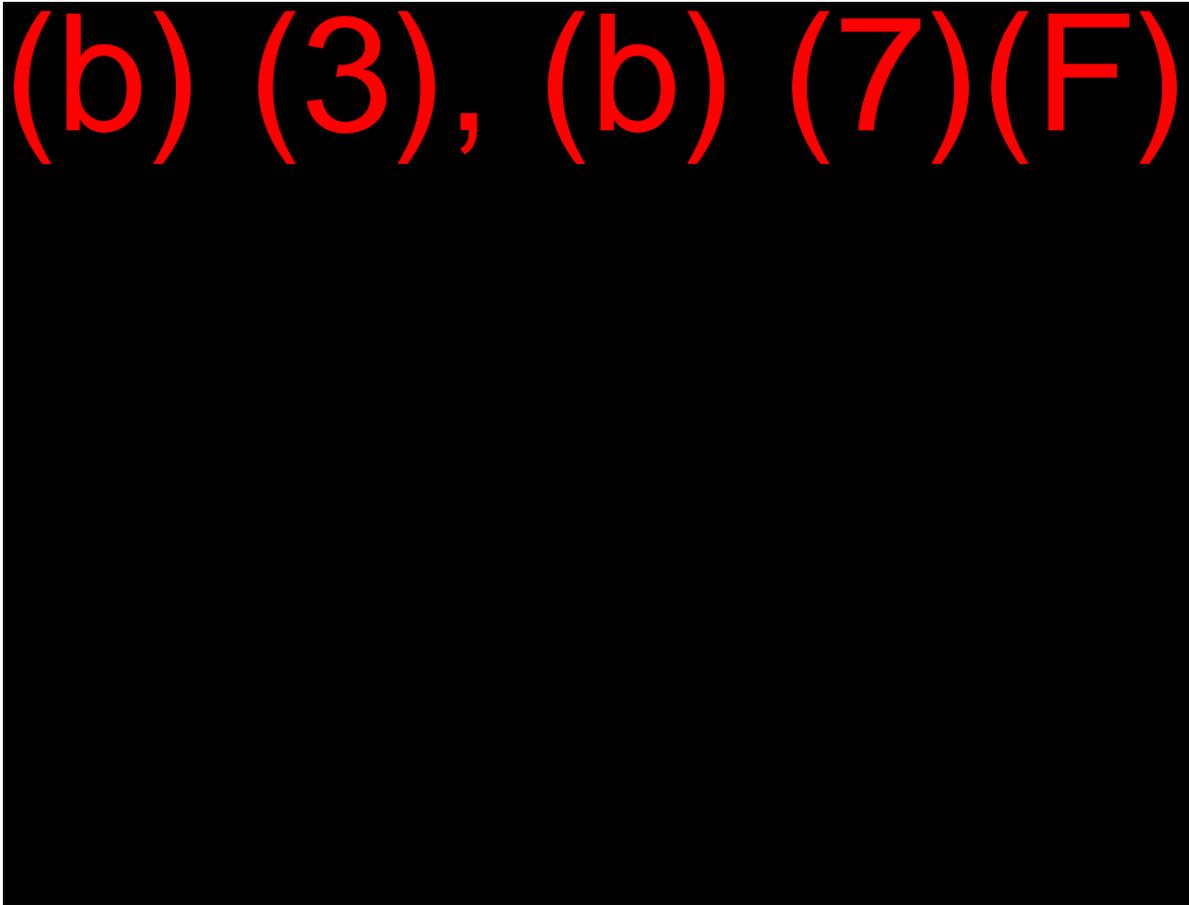
ENERGISTIX, INC - Alsip to Hammond Pipeline Map July 2004_Page_4



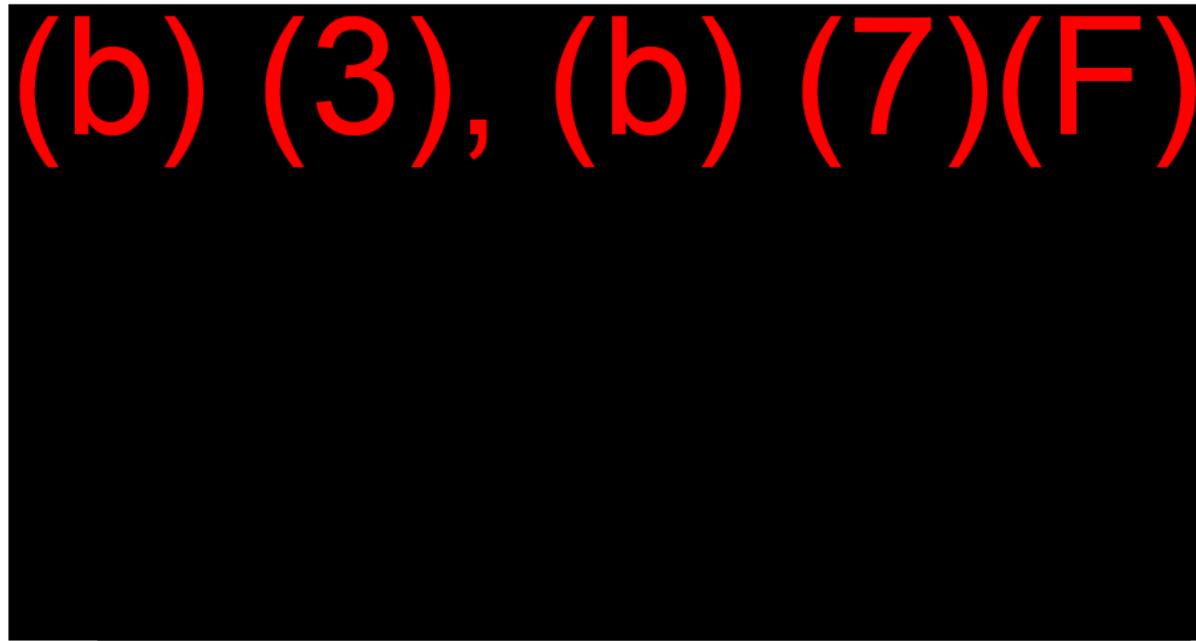
ENERGISTIX, INC - Alsip to Hammond Pipeline Map July 2004_Page_5



HMI Model 102709_OneOK_Line Model (1)

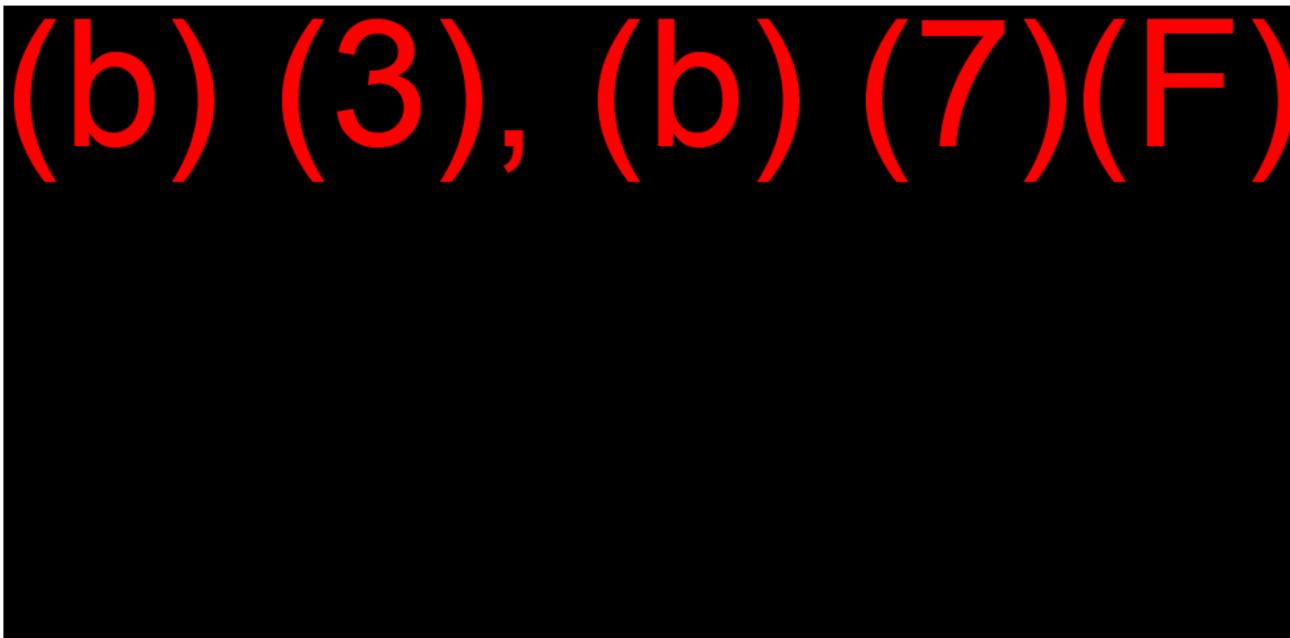


Drainage Diagram



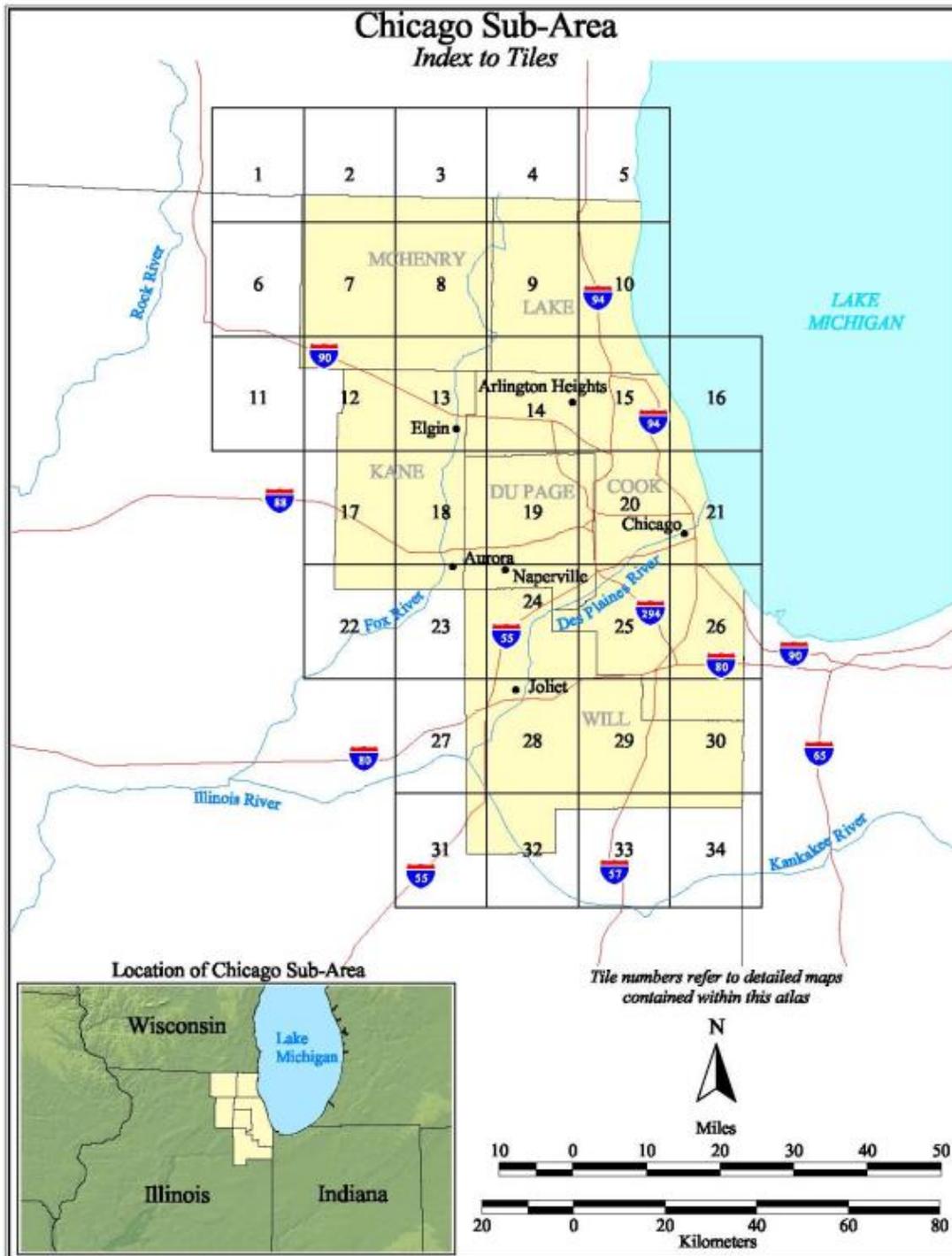
| | | | | | |
|------------------|--------------------------------------|----------------|-------------------|------------------|--|
| Hammond Terminal | HAMMOND TERMINAL HAMMOND, INDIANA | DATE W.C.S. | SCALE AS NOTED | DRAINAGE DIAGRAM |  INTEGRATED CONTINGENCY PLANNING 1000 Greenway Plaza, Suite 2000 Houston, Texas 77046 Phone: 281-595-0400 Integrated Contingency Plan July 2008 |
|------------------|--------------------------------------|----------------|-------------------|------------------|--|

Evacuation Map



| | | | | |
|---|------|----------|--------------------|---|
| PREMOB PIPELINE COMPANY HAMMOND TERMINAL HAMMOND, INDIANA | 0346 | AS NOTED | EVACUATION DIAGRAM | Response Management Hammond, IN 1000 East 10th Street Hammond, IN 46320 Phone: 812.328.9100 Integrated Emergency Plan July 2008 |
|---|------|----------|--------------------|---|

Environmental Sensitivity Map
Alsip ESMS_Page_01



Alsip ESMs_Page_02

MAP LEGEND

SENSITIVE SPECIES

| | |
|---|---|
| <p>Aquatic/Riparian Zone</p> <ul style="list-style-type: none"> Vascular Plants Birds Amphibians and Reptiles Mammals Invertebrates Fish Natural Communities <p> Icons Indicating Threatened or Endangered Status</p> | <p>Terrestrial Zone</p> <ul style="list-style-type: none"> Vascular Plants Birds Amphibians and Reptiles Mammals Invertebrates Natural Communities Multiple Species Groupings |
|---|---|

NATURAL RESOURCE AREAS

| | |
|---|---|
| <ul style="list-style-type: none"> Federal Managed Areas State Managed Areas Regional Managed Areas Private Managed Areas Other Environmentally Sensitive Aquatic Areas Other Environmentally Sensitive Terrestrial Areas | <ul style="list-style-type: none"> Federal Designated Areas State Designated Areas Regional Designated Areas Private Designated Areas |
|---|---|

T Tribal Land

| | |
|--|--|
| <p>OTHER SENSITIVE RESOURCES</p> <ul style="list-style-type: none"> Marina Navigational Lock and Dam Water Intake (nonpotable) Water Intake (potable) | <p>SHORELINE SENSITIVITY</p> <ul style="list-style-type: none"> High Sensitivity Medium-High Sensitivity Low-Medium Sensitivity Low Sensitivity |
|--|--|

POTENTIAL SPILL SOURCES

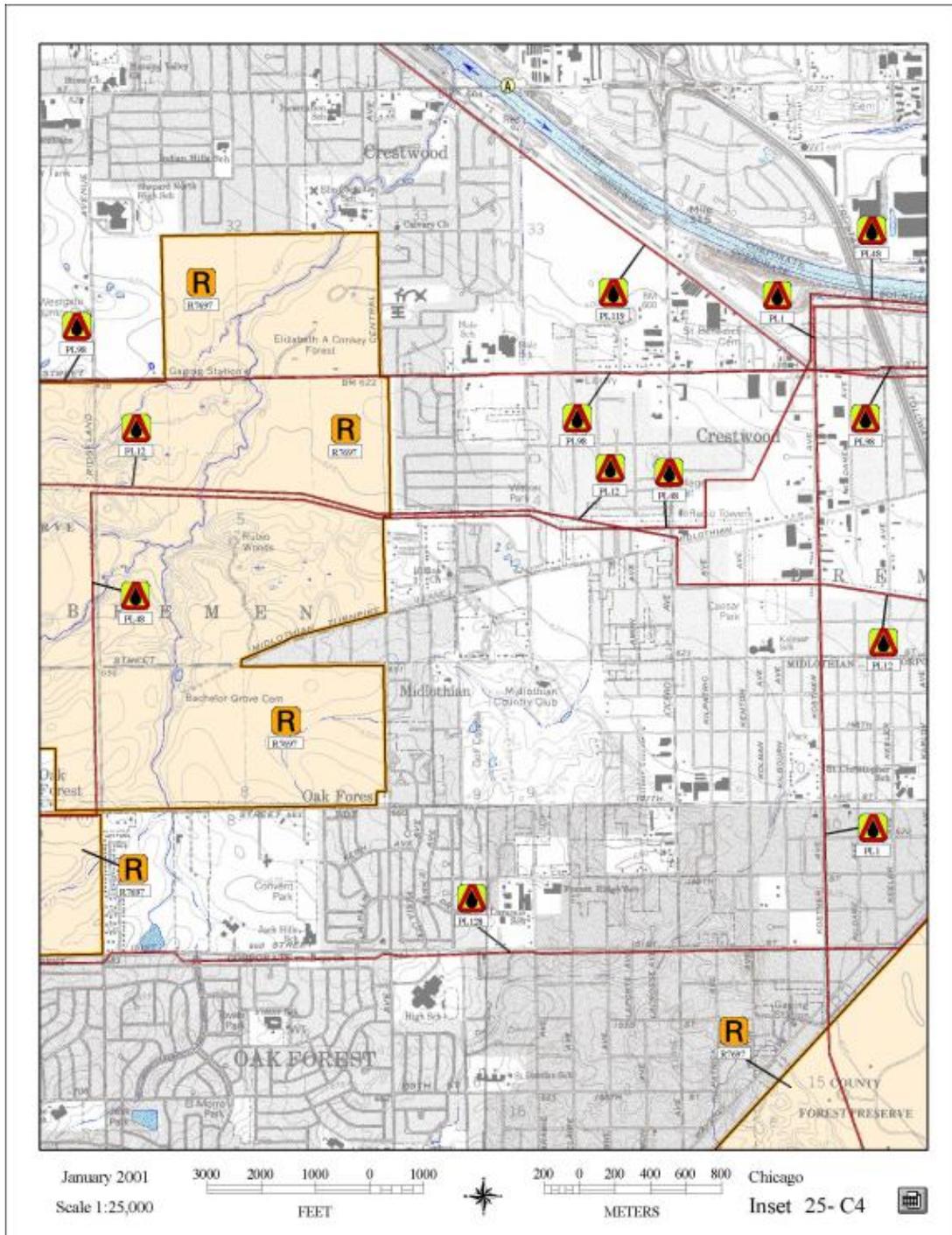
- Fixed Oil Storage Facility
- Marine Transfer Facility and/or Facility with more than 1 million gallons
- Pipeline

| | |
|---|--|
| <p>RESPONSE CONSIDERATIONS</p> <ul style="list-style-type: none"> Boat Access Non-navigational Dam | <p>BOUNDARY DESIGNATIONS</p> <ul style="list-style-type: none"> County Boundary EPA/Coast Guard Jurisdictional Boundary Pipeline Inset Boundary |
|---|--|

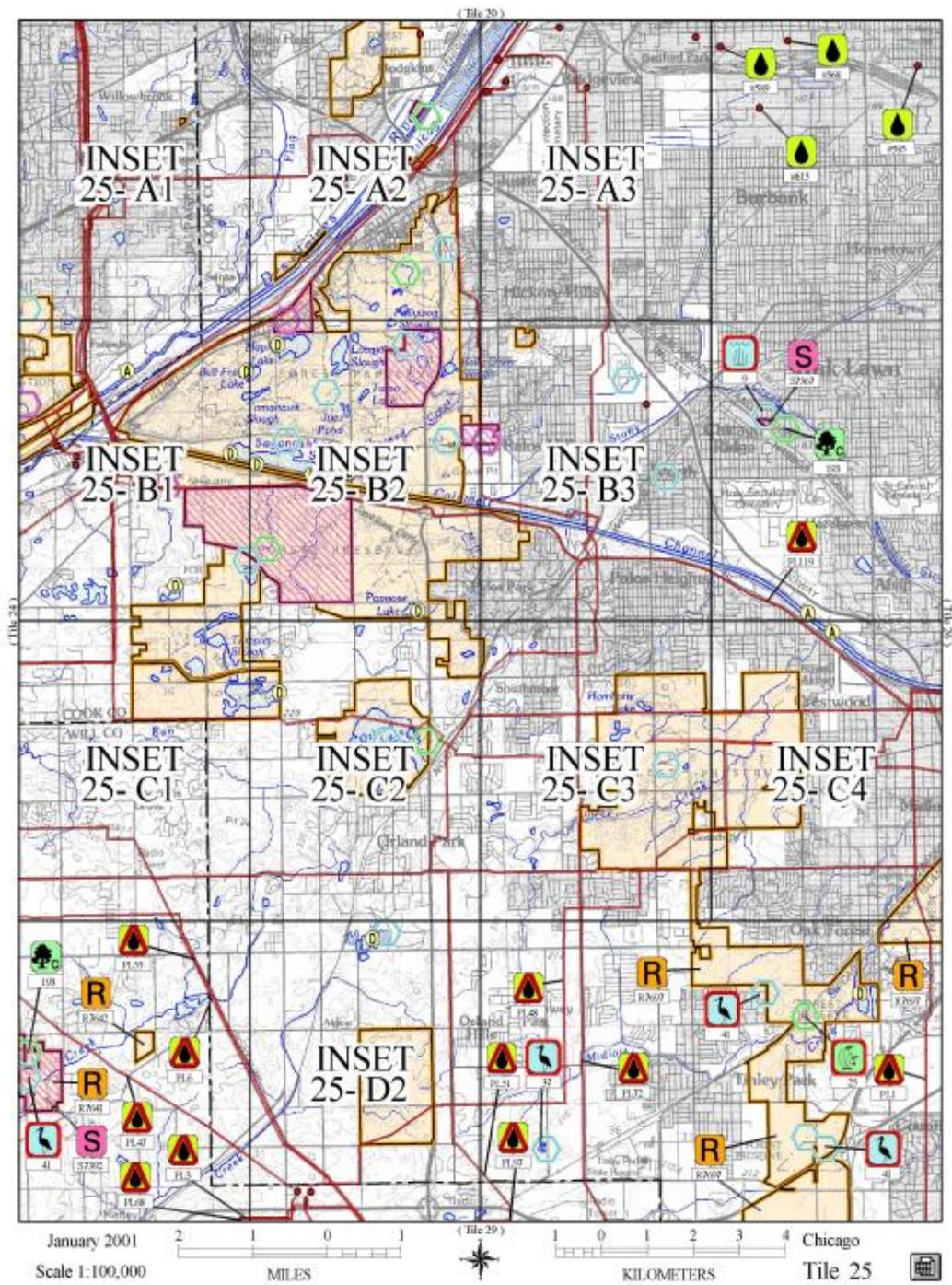
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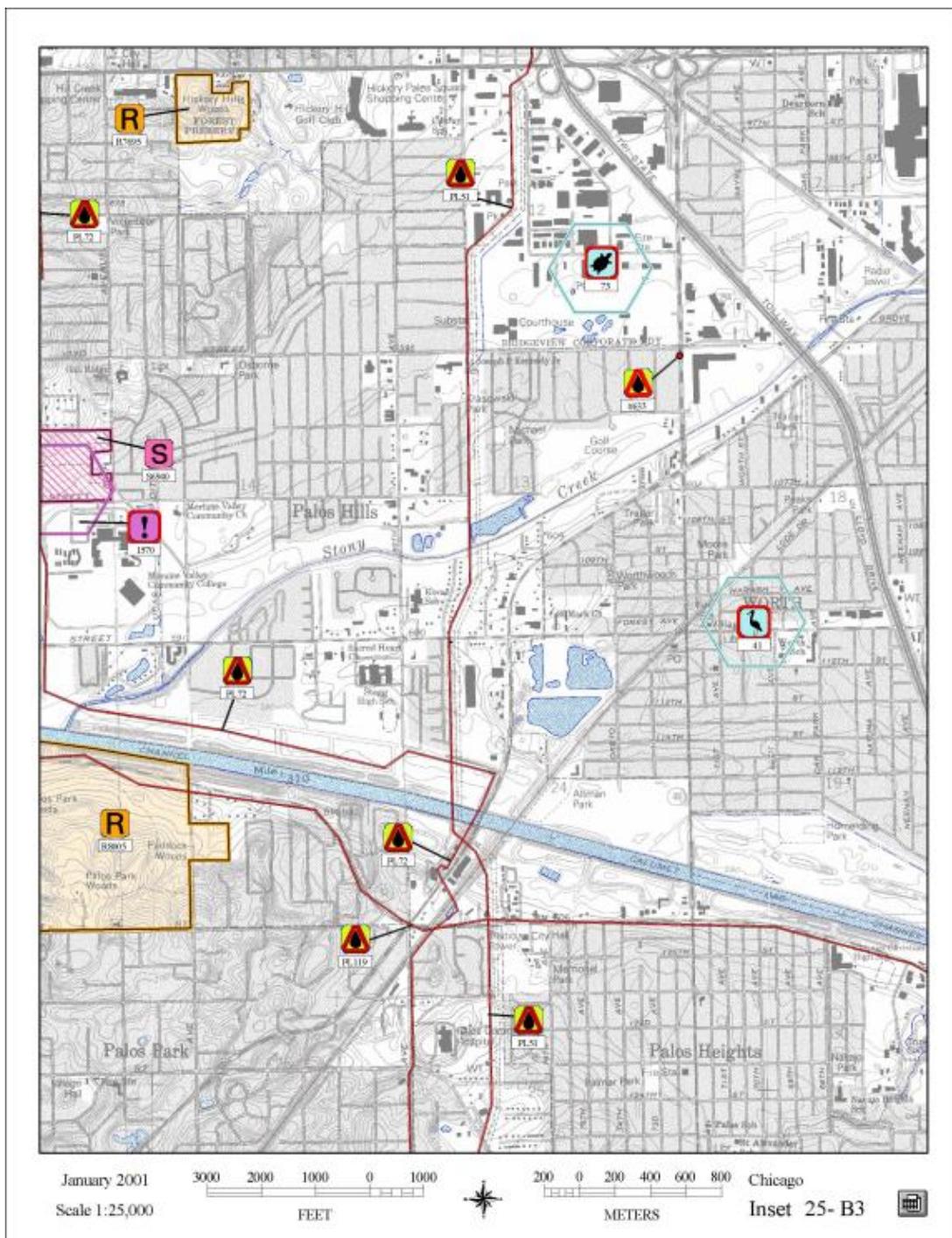
Alsip ESMs_Page_04



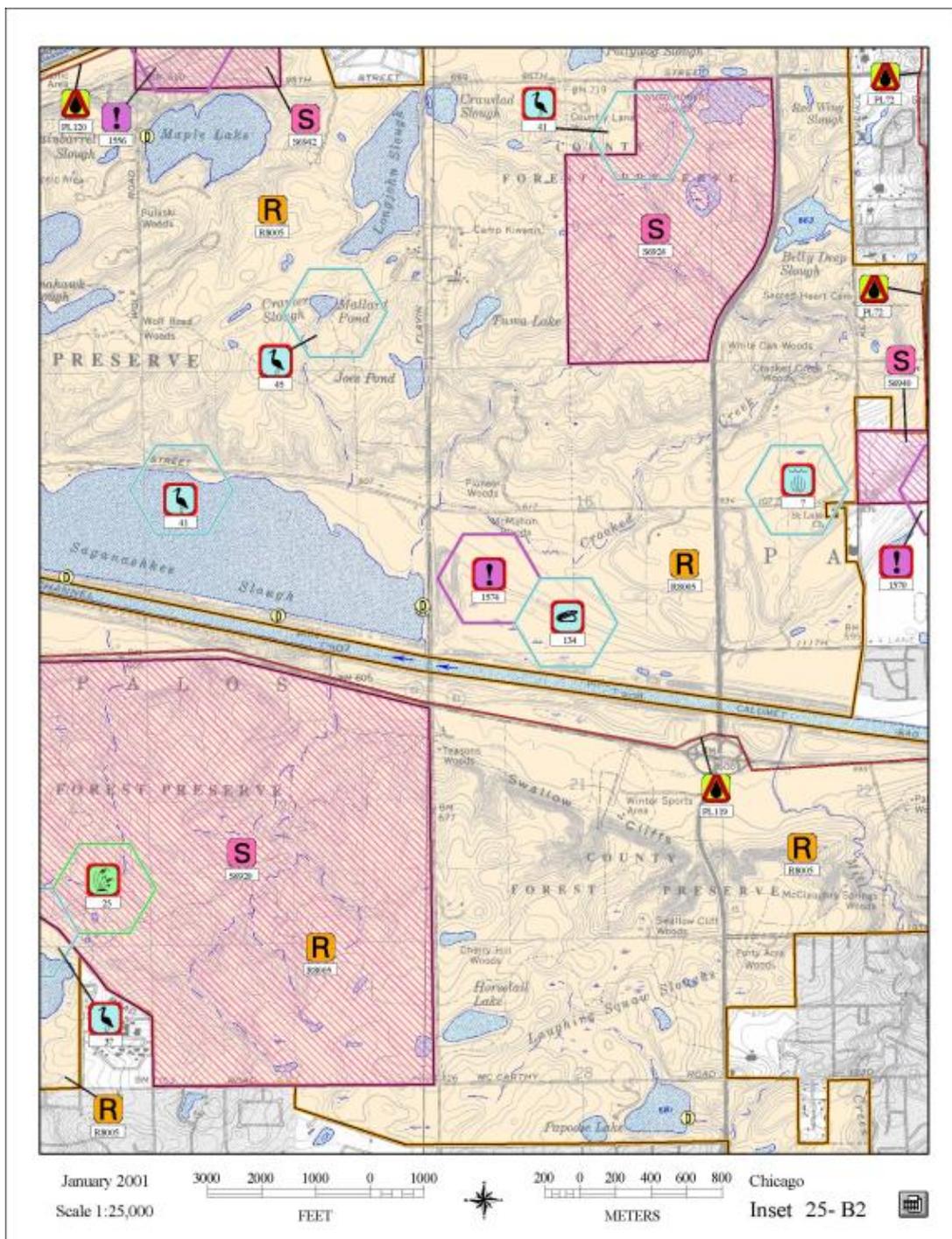
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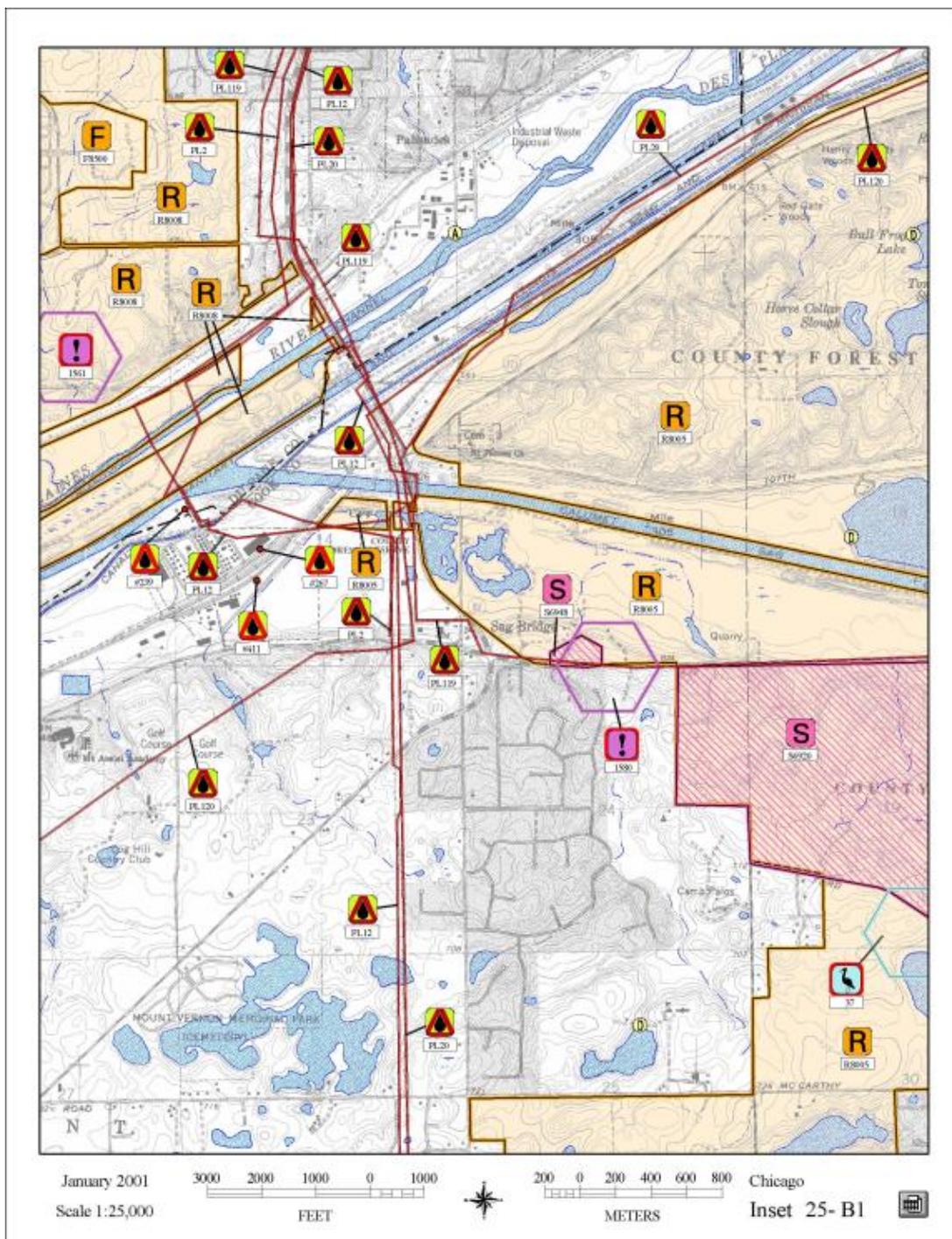
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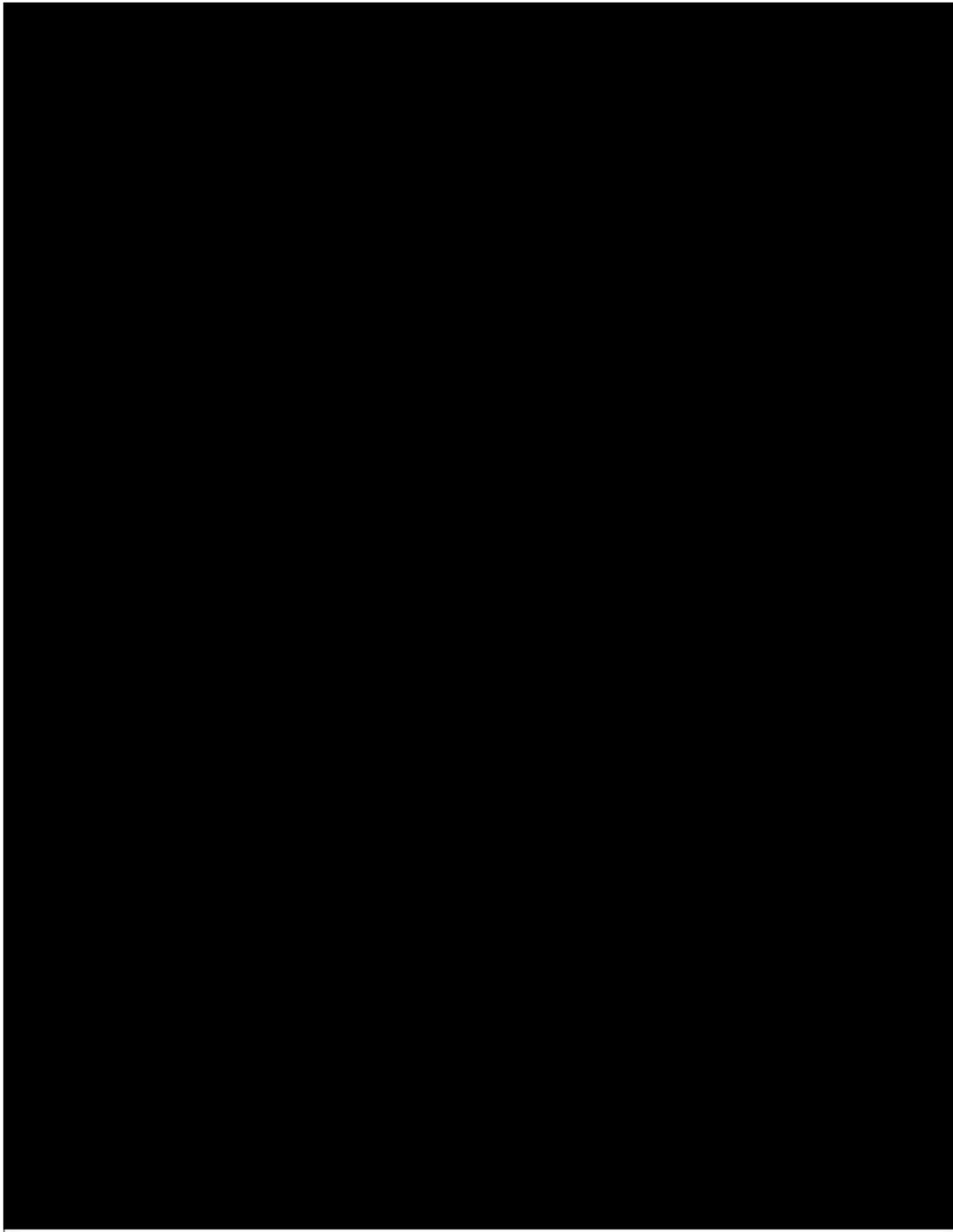
Alsip ESMs_Page_07



Alsip ESMs_Page_08

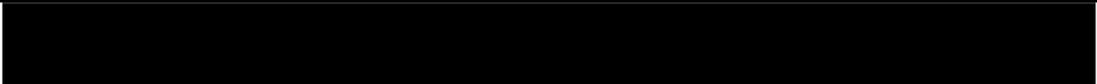
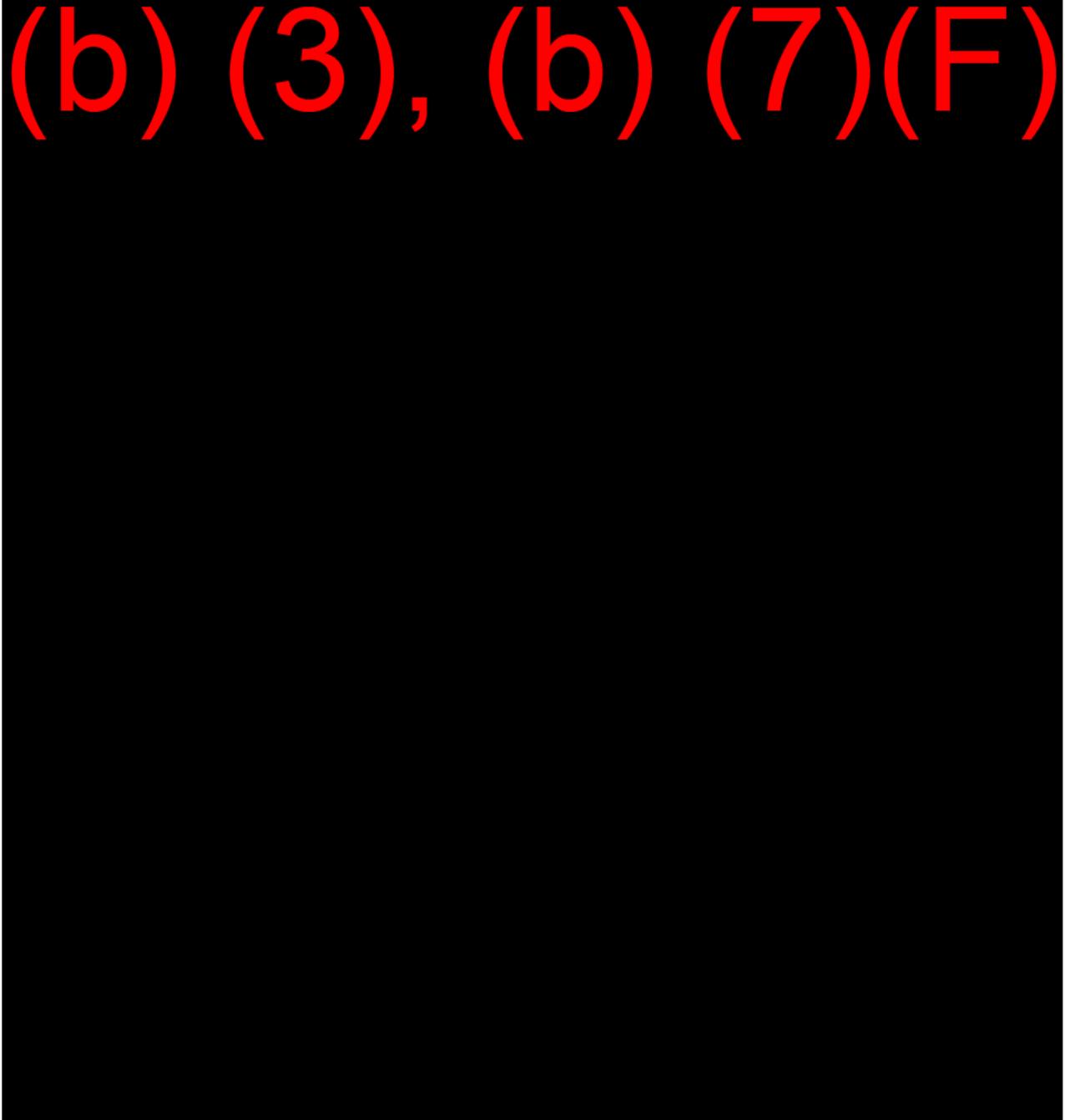


Alsip ESMs_Page_09

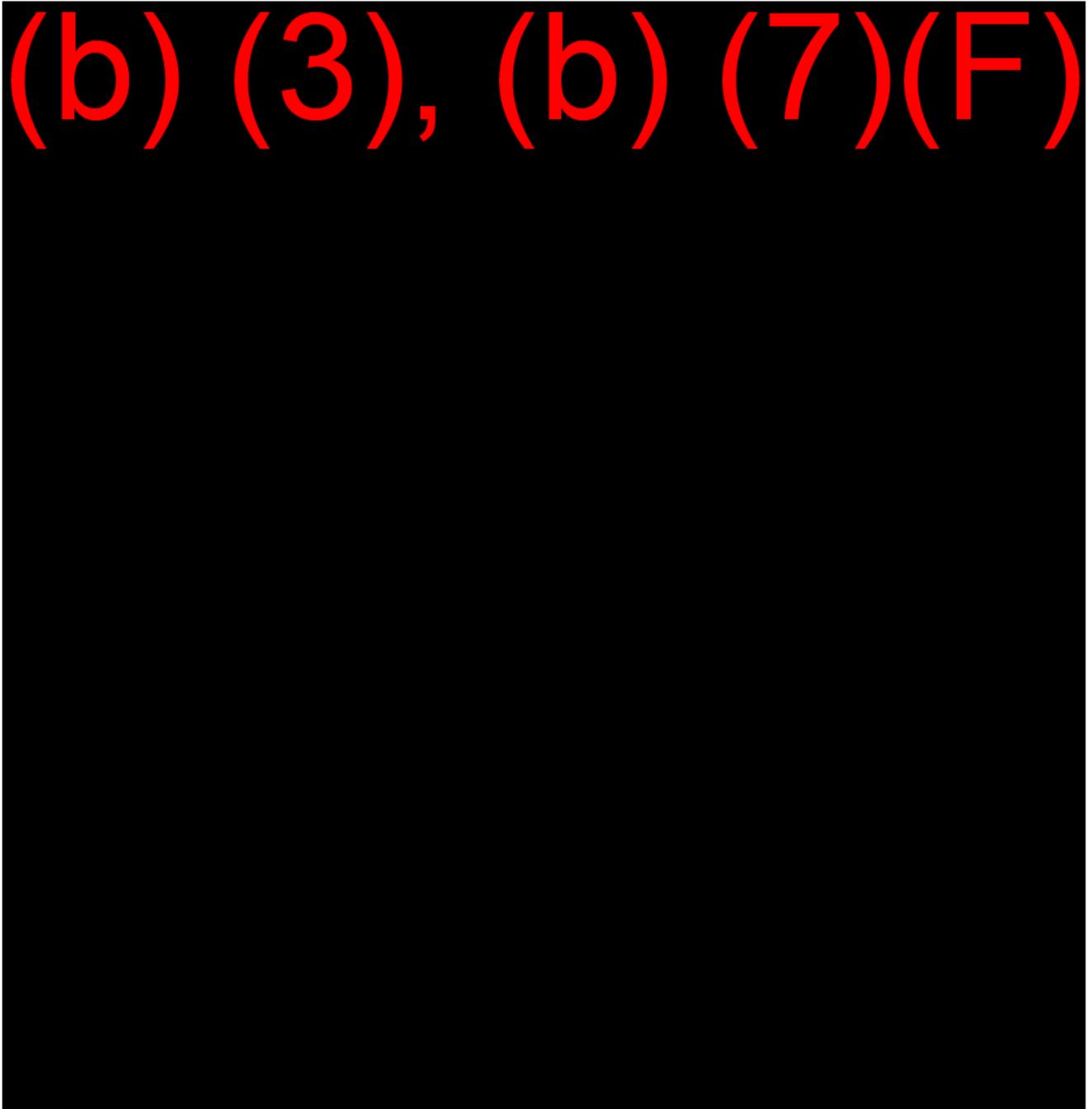


Alsip ESMs_Page_10

(b) (3), (b) (7)(F)



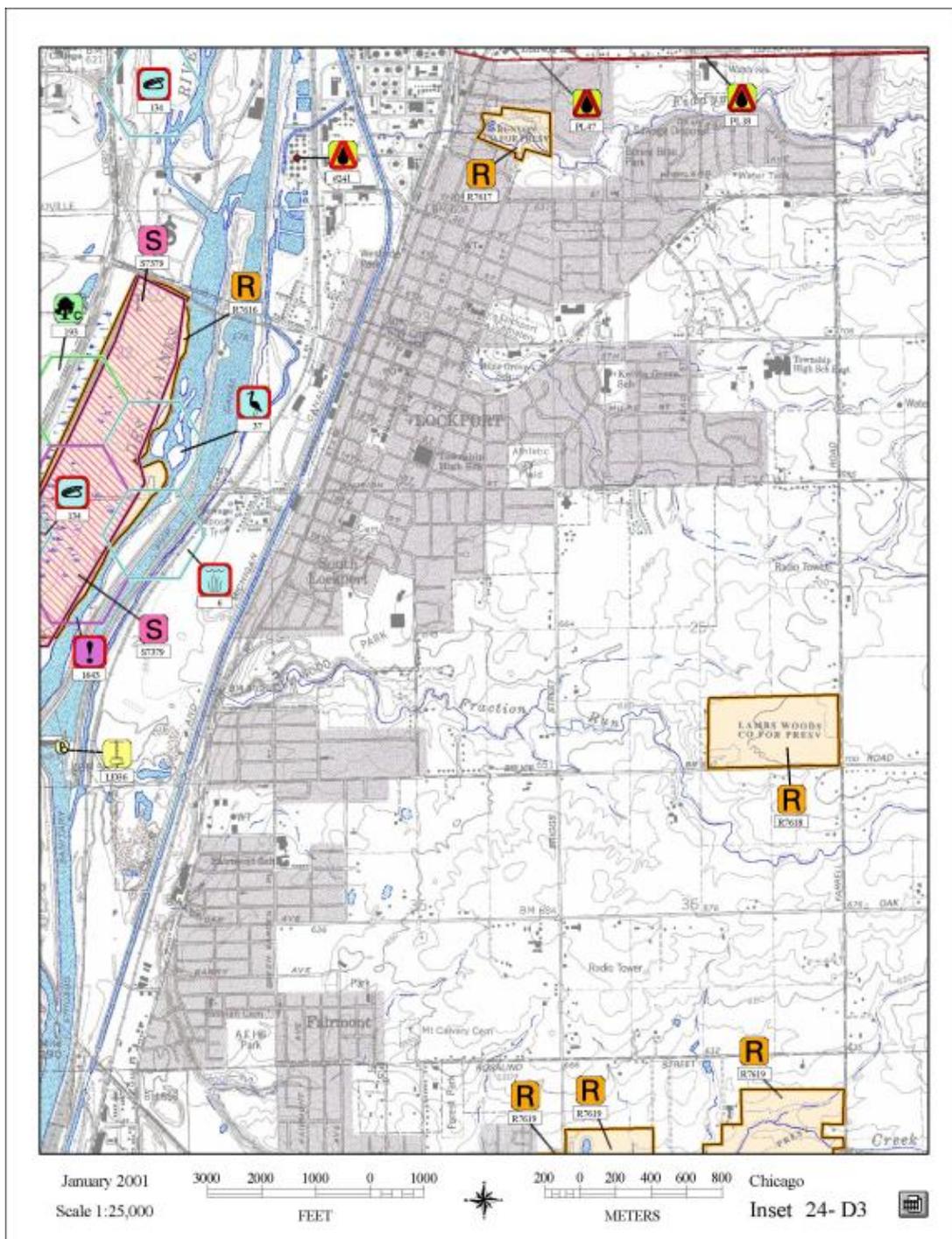
Alsip ESMs_Page_11



(b) (3), (b) (7)(F)



Alsip ESMs_Page_12



Alsip ESMs_Page_13

Title 24

Sensitive Species¹ For a complete listing of all sensitive species mapped in this atlas, please refer to Appendix B.

| Listing | Contact Agency | Emergency Telephone | Contact Telephone |
|---------|---|--|-------------------|
| Federal | USFWS, Chicago Field Office, Barrington, IL | 800-800-5923 to page 612-660-9062 (Region 3 Spill Coordinator) | 847-381-2253 |
| State | IL DNR, Natural Heritage Program | 217-782-7860 | 217-785-8774 |
| | IL DNR, Northeast Regional Office (Cook County) | -- | 630-553-0164 |
| | IL DNR, Biologist for Du Page and Kane Counties | -- | 630-553-1372 |
| | IL DNR, Biologist for Will County | -- | 815-423-6370 |

Managed Areas

| Icon | Site Name | Managing Agency | Waterbody | Emergency # | Contact # | Comments |
|------|---|---------------------------|--------------------------------------|-------------------------------|--------------|-------------------|
| | Argonne National Laboratory - Federal Land | U.S. Department of Energy | Des Plaines River, wetlands, streams | 630-252-3316 | 630-252-3912 | Research facility |
| | Egermann Woods - County Forest Preserve | Du Page County FPD | none | 630-942-6061 | 630-790-4900 | |
| | Hickory Woods - County Forest Preserve | Du Page County FPD | intermittent streams | 630-942-6061 | 630-790-4900 | |
| | Goodrich Woods - County Forest Preserve | Du Page County FPD | intermittent stream | 630-942-6061 | 630-790-4900 | |
| | Springbrook Prairie - County Forest Preserve | Du Page County FPD | Spring Brook, ponds | 630-942-6061 | 630-790-4900 | |
| | West Branch Riverway - County Forest Preserve | Du Page County FPD | W Branch Du Page River | 630-942-6061 | 630-790-4900 | |
| | Pioneer Park - County Forest Preserve | Du Page County FPD | W Branch Du Page River | 630-942-6061 | 630-790-4900 | |
| | Fox Hollow - County Forest Preserve | Du Page County FPD | wetlands, pond | 630-942-6061 | 630-790-4900 | |
| | Green Meadows - County Forest Preserve | Du Page County FPD | ponds | 630-942-6061 | 630-790-4900 | |
| | Romeoville Prairie - County Forest Preserve | Will County FPD | Des Plaines River, wetlands | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| | Riverview Farm - County Forest Preserve | Will County FPD | Du Page River | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| | Du Page River - County Forest Preserve | Will County FPD | Du Page River | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| | Kontick Grove - County Forest Preserve | Will County FPD | E Branch Du Page River, quarry ponds | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| | Lake Renwick Heron Rookery - County Forest Preserve | Will County FPD | Lake Renwick, Lily Cache Creek | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| | Lockport Prairie - County Forest Preserve | Will County FPD | Des Plaines River | 815-727-8700; 815-851-4444 | 815-727-8700 | |

Continued on next page

¹ 2000 Illinois Natural Heritage Data copyrighted and provided by the Illinois Department of Natural Resources, Division of Natural Heritage. To simplify the maps, rare species and most natural communities are represented as "point locations". As such, the hexagons DO NOT represent the full extent of any species or community occurrence. In particular, it should be assumed that mobile species likely occur throughout suitable habitat in the vicinity of the point representation.

Alsip ESMs_Page_14

Tile 24, continued

| Managed Areas, continued | | | | | | |
|--------------------------|---|--------------------|--------------------------------------|-------------------------------|-------------------------------|----------------------------------|
| Icon | Site Name | Designating Agency | Waterbody | Emergency # | Contact # | Comments |
| R7617 | Ruayoa - County Forest Preserve | Will County FPD | Fiddymont Creek | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| R7618 | Lamb Woods - County Forest Preserve | Will County FPD | none | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| R7619 | Lower Spring Creek - County Forest Preserve | Will County FPD | Spring Creek, ponds | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| R7621 | Theodore Marsh - County Forest Preserve | Will County FPD | Rock Run | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| R7622 | Alossio Prairie - County Forest Preserve | Will County FPD | Rock Run | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| R7641 | Messenger Woods - County Forest Preserve | Will County FPD | Spring Creek | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| R7692 | Black Partridge - County Forest Preserve | Cook County FPD | Des Plaines River, Goose Lake | 708-771-1000 | 708-771-1330 | |
| R8001 | Green Valley - County Forest Preserve | Du Page County FPD | Du Page River, streams, ponds | 630-942-6061 | 630-790-4900 | |
| R8002 | Isle a la Cache - County Forest Preserve | Will County FPD | Des Plaines River, wetlands | 815-727-8700; 815-851-4444 | 815-727-8700; 217-785-8686 | |
| R8003 | Keapataw - County Forest Preserve | Will County FPD | Des Plaines River, streams, wetlands | 815-727-8700; 815-851-4444 | 815-727-8700; 217-785-8686 | Seeps, marsh, dolomitic prairie. |
| R8004 | Wood Ridge - County Forest Preserve | Du Page County FPD | unnamed streams, ponds | 630-942-6061 | 630-790-4900 | |
| R8007 | Veteran Woods - County Forest Preserve | Will County FPD | unnamed streams, pond | 815-727-8700; 815-851-4444 | 815-727-8700; 217-785-8686 | |
| R8008 | Waterfall Glen - County Forest Preserve | Du Page County FPD | Des Plaines River, wetlands, streams | 630-942-6061 | 630-790-4900 | |

| Special Designated Areas | | | | | | |
|--------------------------|--|---------------------------------|---------------------------------------|-------------------------------|-------------------------------|---|
| Icon | Site Name | Designating Agency | Waterbody | Emergency # | Contact # | Comments |
| S470 | Du Page River - State Designated Resource Stream | IL DNR, Watershed Mgmt. Section | Du Page River | 217-782-7860 | 217-785-5907; 618-993-7200 | Class B - Biological Stream Characterization |
| S6750 | Long Run Seep - Nature Preserve | IL Nature Preserves Commission | Long Run Creek | 217-782-7860 | 815-467-4271; 217-785-8686 | Land owned by Illinois DNR |
| S6828 | Lake Renwick - Nature Preserve | IL Nature Preserves Commission | Lake Renwick | 217-782-7860; 815-727-6191 | 217-785-8686; 815-727-8700 | Owned by IL DNR, Will County FPD. |
| S6915 | Black Partridge Woods - Nature Preserve | IL Nature Preserves Commission | Des Plaines River, Goose Lake, stream | 708-771-1000 | 708-771-1330; | Owned by Cook County FPD. River bluffs, ravine forests, spring-fed streams. |
| S6938 | O'Hara Woods - Nature Preserve | IL Nature Preserves Commission | none | 815-886-4085 | 217-785-8686; 217-785-8686 | Significant geological and/or biological resources Emerg: Mike Limell, Romeoville EMA Owned/managed by Village of Romeoville. |

Continued on next page

Tile 24, continued

Special Designated Areas, continued

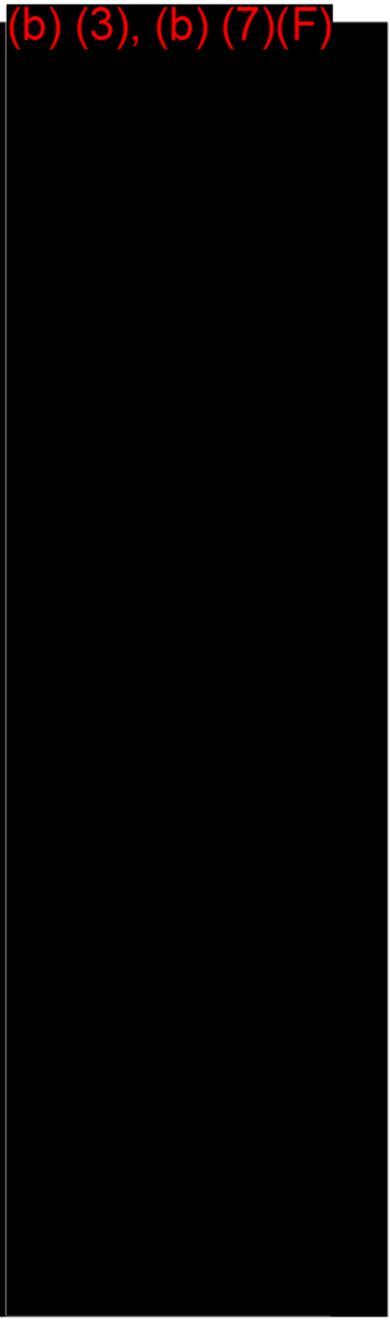
| Icon | Site Name | Designating Agency | Waterbody | Emergency # | Contact # | Comments |
|-------|--------------------------------------|--------------------------------|-----------------------------|--------------|-------------------------------|---|
| S6946 | Romeoville Prairie - Nature Preserve | IL Nature Preserves Commission | Des Plaines River | 815-727-6191 | 815-727-8700; 217-785-8686 | Remnant native ecosystems - prairie, marsh, fens, springs, floodplain forest Owned/managed by Will County FPD |
| S7379 | Lockport Prairie - Nature Preserve | IL Nature Preserves Commission | Des Plaines River | 312-751-5133 | 312-345-6633; 217-785-8686 | Remnant native ecosystems - rare community. Owned by Metro Water Recl. Dist of Chicago |
| S7392 | Messenger Woods - Nature Preserve | IL Nature Preserves Commission | Spring Creek, unnamed ponds | 815-727-6191 | 815-727-8700; 217-785-8686 | Owned/managed by Will County FPD. Remnant native ecosystems. |

Other Environmentally Sensitive Areas

| Icon | Site Name | Contact Agency | Waterbody | Emergency # | Contact # | Comments |
|-------|---|----------------|------------------|--------------|--------------|---|
| O7718 | Materials Services Prairie - Natural Area | IL DNR | wetlands, stream | 217-782-7860 | 217-785-8774 | Land owned by Material Service Corp. Site has rare dolomite prairie and wetlands. |

Navigation Locks and Dams

| Icon | Lock and Dam | Address | Waterbody | Emergency # | Contact # |
|------|---------------|------------------------------|-----------------------|--------------|--------------|
| LD36 | Lockport Lock | 2502 Channel Dr, Lockport IL | Illinois River, 291.1 | 815-838-8536 | 815-838-0536 |



(b) (3), (b) (7)(F)

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Tile 24, continued

| Icon | Facility, Operator | Address | Waterbody | Response Plan | Marine Transfer | Products | Emergency # | Contact # |
|-------|---|------------------------------|---|---------------|-----------------|--|------------------------|------------------------|
| #241 | Equilon Lockport Terminal, Equilon Enterprises, LLC | 301 W Second St, Lockport | Chicago Sanitary and Ship Canal, Mile 293.3 LDB | Y | N | petroleum products, crude oil | 800-634-4325 | 815-638-8461 |
| #251 | CTTGO - Lemont Refinery, CTTGO Petroleum Corp. | 135th St & W New Ave, Lemont | Chicago Sanitary and Ship Canal, Mile 297.5 LDB | Y | N | Petroleum, diesel fuel, lubricating oils | 630-553-6945 | 630-257-7761 ext. 4117 |
| #275 | Korall Corp. - Lemont Facility, Korall Corp. | 305 W New Ave, Lemont | Chicago Sanitary and Ship Canal, Mile 297.7 | Y | Y | petroleum products, asphalt cement | 708-388-4023 | 630-257-8550 |
| #278 | Heritage Environmental Services, Inc, Heritage Environmental Services, Inc. | 15330 Canal Bank Rd, Lemont | Chicago Sanitary and Ship Canal, Mile 301.1 | Y | N | waste oil, fuel oil, mineral oil, gasoline, diesel | 630-739-1151 ext. 234 | 630-739-1151 ext. 213 |
| #394 | Will County Station, Midwest Generation, LLC | 539 E Romeo Rd, Romeoville | Chicago Sanitary and Ship Canal, Mile 296.0 RDB | Y | N | fuel oils #1 & 2, mineral, lubricating oils | 815-886-1010 ext. 2202 | 815-886-1010 ext. 2289 |
| #477 | Argonne National Laboratory, U.S Department of Energy | 97009800 S Cass Ave, Argonne | Sawmill Creek | Y | N | fuel oil, diesel fuel, heating oil | 630-252-6131 | 630-252-3316 |
| #610 | Seneca Petroleum Co., Inc., Seneca Petroleum Co., Inc. | 12460 S New Ave, Lemont | Chicago Sanitary and Ship Canal | N | N | fuel oil, naphtha, asphalt, asphalt emulsifier, sol. | 708-257-2268 | 708-396-1100 |
| #1079 | Egan Marine Corp., Egan Marine Corp. | 15200 Canal Bank Rd, Lemont | Chicago Sanitary and Ship Canal | N | Y | fuel oil | 630-739-0947 | 630-739-0947 |

Petroleum Pipelines

| Icon | Company Name | Route Name | # Lines | Diameters | Products | Emergency # | Contact # |
|------|----------------------------|---|---------|------------------------------------|------------------|----------------------------|-------------------------|
| PL6 | Lakehead Pipeline Co. | Chicago Crude Line | 1 | 34-inch | Crude Oil | 800-858-5253 | 219-922-3133, ext. 101 |
| PL12 | West Shore Pipeline Co. | Green Bay to Chicago | 2 | 16-inch, 10-inch | Refined Products | 888-625-7310 | 630-257-3742 |
| PL14 | Wolverine Pipeline Co. | Joliet to Lockport | 1 | 16-inch | Refined Products | 888-337-5094 | 616-323-2491, ext. 24 |
| PL18 | Mobil Pipeline Co. | S-232 Lockport to Patoka | 1 | 18-inch | Crude Oil | 888-337-5094 | 815-423-7760 |
| PL19 | CTTGO Lemont Refinery | Feed Lines to Wolverine Lockport Pump Station | 1 | 18-inch | Refined Products | 630-553-6945 | 630-257-7761, ext. 4117 |
| PL20 | Amoco Pipeline Co. | White Oak | 1 | 10-inch, 12-inch, 8-inch | Refined Products | 800-548-6482 | 630-836-5315 |
| PL32 | Equilon Pipeline Co. | Lockport Facility Lines | 4 | 20-inch, 24-inch, 16-inch, 16-inch | Refined Products | 800-634-4325; 713-241-2121 | 708-563-6373 |
| PL47 | Chicap/Unocal Pipeline Co. | Monroe St to CTTGO | 2 | 16-inch, 12-inch | Crude Oil | 800-285-8744 | 708-479-9260 |

Continued on next page

Inlan nsitivity Atlas - Chicago Sub-Area J. ry 2001

Title 24, continued

Petroleum Pipelines, continued

| Icon | Company Name | Route Name | # Lines | Diameters | Products | Emergency # | Contact # |
|-------|-------------------------------------|---------------------------------------|---------|-----------|-------------------------|-------------------------------|-----------------------|
| PL55 | Wolverine Pipeline Co. | Lockport to Kennedy Ave | 1 | 16-inch | Refined Products | 888-337-5004 | 616-323-2491, ext. 24 |
| PL69 | Mobil Pipeline Co. | S-199 Lemont Line | 1 | 12-inch | Refined Products | 888-337-5004 | 815-423-7760 |
| PL118 | Texas Eastern Products Pipeline Co. | TEPPCO - Manhattan Junction to Lemont | 1 | 6-inch | Liquified Petroleum Gas | 800-877-3636; 713-759-4765 | 800-877-3636 |
| PL120 | West Shore Pipeline Co. | Lockport to Harlem 10-inch | 1 | 10-inch | Refined Products | 888-625-7310 | 847-439-0270 |
| PL128 | Marathon Ashland Pipeline, LLC | Hammond to Lockport 6" | 1 | 6-inch | Refined Products | 800-537-6644 | 419-421-2121 |

Inland Sensitivity Atlas - Chicago Sub-Area

January 2001

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Title 25

Sensitive Species¹ For a complete listing of all sensitive species mapped in this atlas, please refer to Appendix B.

| Listing | Contact Agency | Emergency Telephone | Contact Telephone |
|---------|---|--|-------------------|
| Federal | USFWS Chicago Field Office, Barrington, IL | 800-890-5923 to page 612-660-9062 (Region 3 Spill Coordinator) | 847-381-2253 |
| State | IL DNR, Natural Heritage Program | 217-782-7860 | 217-785-8774 |
| | IL DNR, Northeast Regional Office (Cook County) | -- | 630-553-0164 |
| | IL DNR, Biologist for Du Page and Kane Counties | -- | 630-553-1372 |
| | IL DNR, Biologist for Will County | -- | 815-423-6370 |

Managed Areas

| Icon | Site Name | Managing Agency | Waterbody | Emergency # | Contact # | Comments |
|-------|---|---------------------------|---|-------------------------------|---------------|----------------------------|
| R5000 | Argonne National Laboratory - Federal Land | U.S. Department of Energy | Des Plaines River, wetlands, streams | 630-252-3316 | 630-252-3912 | Research facility |
| R7556 | Burr Oak - County Forest Preserve | Du Page County FPD | none | 630-942-6061 | 630-790-4900 | |
| R7641 | Messenger Woods - County Forest Preserve | Will County FPD | Spring Creek | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| R7642 | Spring Creek - County Forest Preserve | Will County FPD | Spring Creek | 815-727-8700; 815-851-4444 | 815-727-8700 | |
| R7687 | Salt Creek Division - County Forest Preserve | Cook County FPD | Salt Creek, Des Plaines River | 708-771-1000 | 708-771-1330 | |
| R7695 | Hickory Hills Woods - County Forest Preserve | Cook County FPD | none | 708-771-1000 | 708-771-1330 | |
| R7697 | Tinley Creek Division - County Forest Preserve | Cook County FPD | wetlands, streams, many lakes | 708-771-1000 | 708-771-1330 | |
| R7700 | Cook County - County Forest Preserve | Cook County FPD | ponds, streams, wetlands | 708-771-1000 | 708-771-1330 | |
| R8000 | Columbia Woods - County Forest Preserve | Cook County FPD | Des Plaines River | 708-771-1000 | 708-771-1330; | Remnant native ecosystems. |
| R8005 | Palm-Sag Division Area - County Forest Preserve | Cook County FPD | Cal Sag Channel, Saganshokee & McGinnis Sloughs | 708-771-1000 | 708-771-1330; | Remnant native ecosystems. |
| R8008 | Waterfall Glen - County Forest Preserve | Du Page County FPD | Des Plaines River, wetlands, streams | 630-942-6061 | 630-790-4900 | |

Special Designated Areas

| Icon | Site Name | Designating Agency | Waterbody | Emergency # | Contact # | Comments |
|-------|--|--------------------------------|--|--------------|---------------|--|
| S6920 | Cap Sauer's Holdings - Nature Preserve | IL Nature Preserves Commission | Saganshokee Slough, Cal-Sag Channel (adj.) | 708-771-1000 | 708-771-1330; | Owned by Cook Co. Forest Preserve.. |
| S6924 | Cranberry Slough - Nature Preserve | IL Nature Preserves Commission | wetlands | 708-771-1000 | 708-771-1330; | Remnant native ecosystems- forest, prairie, and marsh. Owned by Cook County EPD. |

Continued on next page

¹ 2000 Illinois Natural Heritage Data copyrighted and provided by the Illinois Department of Natural Resources, Division of Natural Heritage. To simplify the maps, rare species and most natural communities are represented as "point localities". As such, the hexagons DO NOT represent the full extent of any species or community occurrence. In particular, it should be assumed that mobile species likely occur throughout suitable habitat in the vicinity of the point representation.

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Tile 25, continued

| Icon | Site Name | Designating Agency | Waterbody | Emergency # | Contact # | Comments |
|-------|---|--------------------------------|------------------------------|-----------------------|--|--|
| S6940 | Palos Fen - Nature Preserve | IL Nature Preserves Commission | wetlands | 708-771-1000 | 708-771-1330; 217-785-8686 | Remnant native ecosystems - fen, marsh, oak savanna Owned by Cook County FPD. |
| S6942 | Paw Paw Woods - Nature Preserve | IL Nature Preserves Commission | Des Plaines River floodplain | 708-771-1000 | 708-771-1330; 217-785-8686 | Remnant native ecosystems - bluff and floodplain forest. Owned by Cook County FPD. |
| S6948 | Sagawan Canyon - Nature Preserve | IL Nature Preserves Commission | unnamed stream | 708-771-1000 | 708-771-1330; 217-785-8686 | Remnant native ecosystems - canyon and ravine forests, cliff communities. Owned by Cook County FPD. |
| S7367 | Chicago Ridge Prairie - Nature Preserve | IL Nature Preserves Commission | none | 312-903-4632 paper | 708-857-2200; 708-857-2201; 217-785-8686 | Owned by Oak Lawn Park Dist. Emerg#: pages John Baran, Maint. And Safety Dir. Contacts: Maddie Kelly, Dir.; Joel Craig |
| S7392 | Messenger Woods - Nature Preserve | IL Nature Preserves Commission | Spring Creek, unnamed ponds | 815-727-6191 | 815-727-8700; 217-785-8686 | Owned by Will County FPD. Remnant native ecosystems. |
| S7400 | Santa Fe Prairie - Nature Preserve | IL Nature Preserves Commission | Des Plaines River tributary | 217-782-7860 | 217-785-8686 | Recently dedicated Nature Preserve. Site has rare biological/geological resources. |

(b) (3), (b) (7)(F)

| Icon | Facility, Operator | Address | Waterbody | Response Plan | Marine Transfer | Products | Emergency # | Contact # |
|------|---|---|--|---------------|-----------------|--|-------------------------------|--------------|
| #110 | Corn Products Intl., Inc. - Argo Plant, Corn Products Intl., Inc. | 6400 S Archer, Argo | Chicago Sanitary and Ship Canal, Mile 312 | N | N | petroleum and vegetable oils | 708-563-2400 | 708-563-2400 |
| #237 | GATX Terminals Corp. | 8500 W 68 th St, Argo | Chicago Sanitary and Ship Canal, Mile 311.2 LDB | Y | Y | Petroleum, tallow, petrochemicals | 708-458-1330 | 708-496-2862 |
| #238 | Equilon Argo Terminal, Equilon Enterprises, LLC | 8600 & 8800 W 71 st St, Bedford Park | Chicago Sanitary and Ship Canal, Mile 310.8 LDB | Y | N | petroleum products, petrochemicals | 708-774-3033; 800-634-4325 | 708-563-6312 |
| #239 | IMTT-Lemont, IMTT | 13589 Main St, Lemont | Chicago Sanitary and Ship Canal, Cal-Sag Channel, Mile 303 | Y | Y | asphalt, tube oil, vegetable oil | 630-257-3796 ext. 3972 | 630-257-3950 |
| #252 | The Valvoline Co., Ashland Petroleum Co. | 84508500 S Willow Springs Rd, Willow Springs | Chicago Sanitary and Ship Canal, Mile 308.5 LDB | Y | N | lubricating oil base stocks, petroleum | 815-436-1766 | 708-579-4660 |

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Title 25, continued

| Icon | Facility, Operator | Address | Waterbody | Response Plan | Marine Transfer | Products | Emergency # | Contact # |
|------|---|---------------------------------------|---|---------------|-----------------|---|----------------------------|--------------|
| #267 | Bodie - Hoover Petroleum Corp., Lyons | 13383 Main St, Lemont | Calumet Saginaw Channel | Y | N | petroleum products, oil-base lubricants (b) | 815-834-0340 | 630-257-7781 |
| #277 | Marathon Willow Springs Terminal, Marathon Oil Co. | 7600 La Grange Rd, Willow Springs | Chicago Sanitary and Ship Canal | Y | N | petroleum products, gasoline | 630-904-2863 | 708-839-5220 |
| #282 | Argo Terminal Co. - Great Lakes Terminal, Argo Terminal Co. | 8800 W 71st St, Bedford Park | Chicago Sanitary and Ship Canal, Mile 310.8 | Y | N | petroleum products, industrial solvents | 773-735-0586 | 773-735-0586 |
| #286 | Unocal - Chicagap Pipelines, Union Oil Co. | 18401 S Wolf Rd, Mokena | Marley Creek | Y | N | petroleum products, crude oil | 800-443-7343 ext. 051329 | 708-479-9260 |
| #411 | Osco, Inc., Osco, Inc. | 13351 Main St & Maley St, Lemont | Chicago Sanitary and Ship Canal | Y | N | fuel oil, gasoline, diesel | 630-257-8000 | 630-257-8000 |
| #419 | 3M Tape Division, Minnesota Mining & Manufacturing | 6850 S Harlem Ave, Summit Argo | Chicago Sanitary and Ship Canal | Y | N | fuel & mineral oil | 708-496-6666 | 708-496-6500 |
| #527 | Ashland Chemical Co., Ashland Chemical Co. | 8500 S Willow Springs, Willow Springs | Des Plaines River, Chicago Sanitary and Ship Canal, Mile 0.25 | Y | N | hexanes, mineral seal oil, JP5 | 708-579-0241 | 708-588-2900 |
| #536 | Central Blacktop Co., Inc., Central Blacktop Co., Inc. | 6301 S East Ave, Hodgkins | Des Plaines River | N | N | petr. asphalt, distillates, redicote 95-5 | 708-257-7479 | 708-482-9660 |
| #567 | Houghton Int'l, Inc., Houghton Int'l, Inc. | 6600 S Nashville Ave, Bedford Park | Chicago Sanitary and Ship Canal, Mile 309 | N | N | kerosene, mineral oil | 708-458-5533; 312-767-6760 | 773-767-7670 |
| #568 | IKO Chicago, Inc., IKO Chicago, Inc. - Chicago Plant | 6600 S Central, Bedford Park | None | N | N | petroleum asphalt | 708-496-2800 | 708-496-2800 |
| #582 | Mobil Mokena Station, Mobil Oil Corp. | 10915 W 183rd, Mokena | Ditches | N | N | crude oil (sweet) | 214-658-2369 | 708-479-2677 |
| #589 | Nalco Chemical Co., Nalco Chemical Co. | 6216 W 66th Pl, Chicago | Chicago Sanitary and Ship Canal, Mile 309 | N | N | #2 diesel fuel, aromatics, proc. oil, mineral oil | 708-496-5247 | 708-496-5000 |
| #595 | Occidental Chemical Corp., Occidental Chemical Corp. | 4201 W 69th St, Chicago | None | N | N | #6 fuel oil | 773-284-0079 | 773-284-0079 |
| #615 | The C.P. Hall Co., The C.P. Hall Co. | 5851 W 73rd St, Bedford Park | Chicago Sanitary and Ship Canal | N | N | soybean oil, tall oil | 708-594-5980 | 708-594-5077 |
| #633 | Yellow Freight System, Inc., Yellow Freight System, Inc. | 10301 S Harlem Ave, Chicago Ridge | Stony Creek | N | Y | waste oil, motor, gear oil, diesel fuel #2 | 708-636-4601 | 913-344-3615 |

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Title 25, continued

| Icon | Company Name | Route Name | # Lines | Diameters | Products | Emergency # | Contact # |
|-------|-------------------------------------|--|---------|--------------------------|------------------|-------------------------------|------------------------|
| PL1 | Chicago/Unocal Pipeline Co. | Monroe Station to Blue Island Refinery | 1 | 12-inch | Crude Oil | 800-285-8744 | 708-479-9260 |
| PL2 | West Shore Pipeline Co. | Canal to Des Plaines 16-inch | 1 | 16-inch | Refined Products | 888-625-7310 | 847-439-0270 |
| PL3 | Chicago/Unocal Pipeline Co. | Panoka to Mokena | 1 | 26-inch | Crude Oil | 800-285-8744 | 708-479-9260 |
| PL6 | Lakehead Pipeline Co. | Chicago Crude Line | 1 | 34-inch | Crude Oil | 800-858-5253 | 219-922-3133, ext. 101 |
| PL12 | West Shore Pipeline Co. | Green Bay to Chicago | 2 | 16-inch, 10-inch | Refined Products | 888-625-7310 | 630-257-3742 |
| PL20 | Amoco Pipeline Co. | White Oak | 1 | 10-inch, 12-inch, 8-inch | Refined Products | 800-548-6482 | 630-836-5315 |
| PL46 | Chicago/Unocal Pipeline Co. | Mokena St to Monroe St | 1 | 12-inch | Crude Oil | 800-285-8744 | 708-479-9260 |
| PL47 | Chicago/Unocal Pipeline Co. | Monroe St to Cigo | 2 | 16-inch, 12-inch | Crude Oil | 800-285-8744 | 708-479-9260 |
| PL48 | Chicago/Unocal Pipeline Co. | Mokena St to Clark Refinery | 1 | 14-inch | Crude Oil | 800-285-8744 | 708-479-9260 |
| PL49 | Texas Eastern Products Pipeline Co. | TEPPCO - Chicago GATX to Allied Oil | 1 | 14-inch | | 800-877-3636; 713-759-4765 | 800-877-3636 |
| PL50 | Texas Eastern Products Pipeline Co. | TEPPCO - Cargo GATX to Shell | 1 | 14-inch | Refined Products | 800-877-3636; 713-759-4765 | 800-877-3636 |
| PL51 | Texas Eastern Products Pipeline Co. | TEPPCO - Seymour, IN to Chicago GATX | 1 | 14-inch | Refined Products | 800-877-3636; 713-759-4765 | 800-877-3636 |
| PL55 | Wolverine Pipeline Co. | Lockport to Kennedy Ave | 1 | 16-inch | Refined Products | 888-337-5004 | 616-323-2491, ext. 24 |
| PL68 | Mobil Pipeline Co. | S-175 Panoka to Mokena | 1 | 30-inch | Crude Oil | 888-337-5004 | 815-423-7760 |
| PL72 | Equilon Pipeline Co. | Footone to Argo | 1 | 14-inch | Refined Products | 800-634-4325; 713-241-2121 | 708-563-6373 |
| PL74 | Equilon Pipeline Co. | Argo to Des Plaines | 1 | 14-inch | Refined Products | 800-634-4325; 713-241-2121 | 708-563-6373 |
| PL97 | Texas Eastern Products Pipeline Co. | TEPPCO - Mokena Junction to Mokena | 1 | 14-inch | | 800-877-3636; 713-759-4765 | 800-877-3636 |
| PL98 | Texas Eastern Products Pipeline Co. | TEPPCO - Orland Park to Blue Island Bulfinch | 1 | 14-inch | Refined Products | 800-877-3636; 713-759-4765 | 800-877-3636 |
| PL119 | West Shore Pipeline Co. | East Chicago to Madison 12-inch | 1 | 12-inch | Refined Products | 888-625-7310 | 847-439-0270 |
| PL120 | West Shore Pipeline Co. | Lockport to Harlem 10-inch | 1 | 10-inch | Refined Products | 888-625-7310 | 847-439-0270 |
| PL128 | Marathon Ashland Pipeline, LLC | Hammond to Lockport 6" | 1 | 6-inch | Refined Products | 800-537-6644 | 419-421-2121 |
| PL131 | Marathon Ashland Pipeline, LLC | Willow Springs 14" Product Lateral | 1 | 14-inch | Refined Products | 800-537-6644 | 419-421-2121 |

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Title 26

Sensitive Species¹ For a complete listing of all sensitive species mapped in this atlas, please refer to Appendix B.

| Listing | Contact Agency | Emergency Telephone | Contact Telephone |
|---------|---|--|-------------------|
| Federal | USFWS Chicago Field Office, Barrington, IL | 800-890-5923 to page 612-600-9662 (Region 3 Spill Coordinator) | 847-381-2253 |
| State | IL DNR, Natural Heritage Program | 217-782-7860 | 217-785-8774 |
| | IL DNR, Northeast Regional Office (Cook County) | - | 630-553-0164 |

Managed Areas

| Icon | Site Name | Managing Agency | Waterbody | Emergency # | Contact # | Comments |
|-------|--|-------------------------------------|---|--------------|--------------|----------|
| R7696 | Calumet Division - County Forest Preserve | Cook County FPD | Grand Calumet, Little Calumet Rivers, Wolf Lake | 708-771-1000 | 708-771-1330 | |
| R7697 | Tinley Creek Division - County Forest Preserve | Cook County FPD | wetlands, streams, many lakes | 708-771-1000 | 708-771-1330 | |
| R7703 | Thorn Creek Division - County Forest Preserve | Cook County FPD | Thorn Creek, Calumet River, wetlands, lakes | 708-771-1000 | 708-771-1330 | |
| S6755 | William W. Powers - State Conservation Area | IL DNR, Division of Land Management | | 217-782-7860 | 773-646-3270 | |

Special Designated Areas

| Icon | Site Name | Designating Agency | Waterbody | Emergency # | Contact # | Comments |
|-------|--|--------------------------------|-----------------------|------------------|--------------------------------|--|
| S845 | Geasburg-Markham Prairie - Nature Preserve | IL Nature Preserves Commission | wetlands | 708-687-6028 (h) | 708-687-6028 (h); 217-785-8686 | Land owned by Northeastern Illinois University, TNC, and others. Contacts: Rob Paizer, Land Manager & IL Nature Preserves Commission |
| S6931 | Jurgenson Woods - Nature Preserve | IL Nature Preserves Commission | wetlands | 708-771-1000 | 708-771-1330; 217-785-8686 | Owned/managed by Cook County FPD |
| S6930 | Sand Ridge - Nature Preserve | IL Nature Preserves Commission | Green Lake, wetlands | 708-771-1000 | 708-771-1330; 217-785-8686 | Remnant native ecosystems - sand dunes, prairie, savanna |
| S6956 | Thornton-Lansing Road - Nature Preserve | IL Nature Preserves Commission | creek, lake, wetlands | 708-771-1000 | 708-771-1330; 217-785-8686 | Owned/managed by Cook County FPD |
| S7403 | Dropsed Prairie - Nature Preserve | IL Nature Preserves Commission | none | 217-782-7860 | 217-785-8686 | Recently dedicated Nature Preserve. Site has rare biological/geological resources. |
| S7404 | Painbrush Prairie - Nature Preserve | IL Nature Preserves Commission | none | 217-782-7860 | 217-785-8686 | Recently dedicated Nature Preserve. Site has rare biological/geological resources. |

¹ 2000 Illinois Natural Heritage Data copyrighted and provided by the Illinois Department of Natural Resources, Division of Natural Heritage. To simplify the maps, rare species and most natural communities are represented at "point locations". As such, the hexagons DO NOT represent the full extent of any species or community occurrence. In particular, it should be assumed that mobile species likely occur throughout suitable habitat in the vicinity of the point representation.

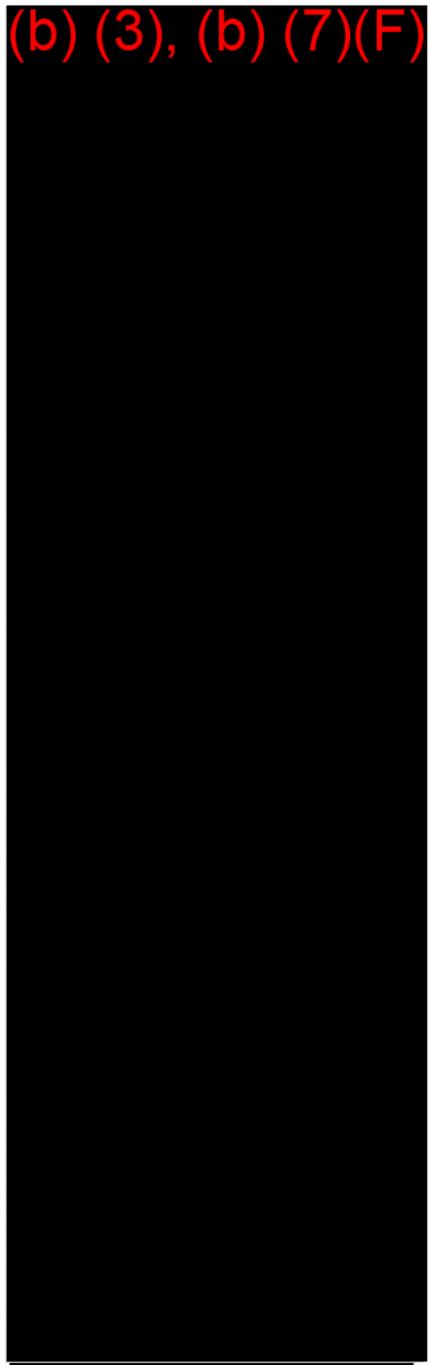
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| Icon | Marina Name | Address | Waterbody | Slips | Fuel Pump | Emergency # | Contact # |
|-------|--|---------------------------------------|---------------------------------|-------|-----------|------------------|--------------|
| M0287 | Croissant Marina | 14002 S Croissant Dr, Burnham IL | Little Calumet River, 325.5 LDB | 40 | N | 708-891-0400 | 708-891-0400 |
| M0295 | Pier 11 Marina | 826 E 138th St, Chicago IL | Little Calumet River, 323.2 LDB | 134 | N | 773-415-1359 | 773-468-9605 |
| M0296 | Reimer's Marine Service | 13515 S Forest Ave, Chicago IL | Little Calumet River, 322.7 LDB | 5 | N | 708-614-7656 (b) | 773-468-3776 |
| M0299 | Windjammer Marina | 13701 S Hoxie Ave, Chicago IL | Calumet River, 326.2 LDB | 45 | N | none | 773-646-2077 |
| M0338 | Skipper's Marina | 13421 S Vernon Ave, Riverdale IL | Little Calumet River, 322.8 RDB | 25 | Y | 312-928-5291 | 773-928-5290 |
| M0339 | Triplex Marina | 131st St and Halsted St, Riverdale IL | Little Calumet River, 320.0 LDB | 40 | Y | 708-849-2200 | 708-849-2200 |
| M0505 | Marine Services Corp. / Dolton Yacht Basin | 140 Cottage Grove Ave, Dolton IL | Little Calumet River, 324.0 LDB | Y | N | 847-699-0188 | 708-841-5660 |
| M0506 | Riley's Marina | 14042 Croissant Dr, Burnham IL | Little Calumet River, 325.2 LDB | 40 | N | none | 708-868-0567 |
| M6655 | Riverside Marina & Lounge | 13603 S Calhoun Ave, Chicago IL | Little Calumet River | Y | | none | 773-646-5300 |

Navigation Locks and Dams

| Icon | Lock and Dam | Address | Waterbody | Emergency # | Contact # |
|------|------------------------|-----------------------------------|-----------------------|--------------|--------------|
| LD38 | Thomas J. O'Brien Lock | 134th & Calumet River, Chicago IL | Illinois River, 326.5 | 312-646-2183 | 312-646-2183 |



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sitivity Atlas - Chicago Sub-Area
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(b) (3), (b) (7)(F)

| Icon | Facility, Operator | Address | Waterbody | Response Plan | Marine Transfer | Products | Emergency # | Contact # |
|------|--|---|--|---------------|-----------------|--|-----------------------------------|-------------------------------|
| #243 | Stochaven Chicago Inc., Stolt-Neilsen Terminals, Inc. | 12200 S Stony Island Ave, Chicago | Lake Calumet, Mile 327.9 LDB | Y | Y | Petrochemicals, animal fats, vegetable oils | 708-429-7554 (h); 312-349-4304 | 773-646-4440; 773-646-8147 |
| #244 | Cargill, Inc., Cargil, Inc. | 12200 S Torrence Ave, Chicago | Calumet River, Mile 328.8 RDB | Y | N | soybean oil | 773-375-7353; 312-343-1686 | 773-375-7255; 219-755-0135 |
| #247 | S.T. Services, Support Terminal Services, Inc. | 3210 W 131 st St, Blue Island | Calumet Saginaw Channel, Mile 316.5 RDB | Y | N | petroleum products, natural gas, oil | 708-388-5891 | 708-388-5801 |
| #248 | Premcor Blue Island Refinery, Premcor Refining Group | 13100 S Kedzie Ave, Blue Island | Calumet Saginaw Channel, Mile 316.8 RDB | Y | Y | petroleum products, asphalt, crude oil | 708-385-5000 ext. 205 | 708-385-5000 ext. 223 |
| #249 | LTV Steel Co., LTV Steel Co. | 11600 S Burielgh Ave, Chicago | Calumet River, Mile 329.2 LDB | Y | N | petroleum products | 773-933-4237 | 773-933-4108 |
| #279 | PM Ag Products, Inc., PM Ag Products, Inc. | 13550 S Indiana Ave, Riverdale | Little Calumet River, Mile 322.3 LDB | Y | Y | sunflower oil | 708-849-9220 | 708-849-9220 |
| #380 | James Towing, James Towing | 400 E Sibley Blvd, Harvey | Calumet River | Y | N | petroleum products | | 708-596-7722 |

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| Icon | Facility, Operator | Address | Waterbody | Response Plan | Marine Transfer | Products | Emergency # | Contact # |
|------|--|-------------------------------------|------------------------------------|---------------|-----------------|---|----------------------------|--------------------------------------|
| #384 | Calumet Lubricants Co., Calumet Lubricants Co. | 14000 Mackinaw Ave, Chicago | Grand Calumet River | Y | N | lubricating oils | 219-923-7716 (h) | 708-862-9100 |
| #401 | Ford Motor Co., Ford Motor Co. | 12600 S Torrence Ave, Chicago | Calumet River | Y | N | fuel and hydraulic oil & gasoline | 773-646-7200 | 773-646-7472 |
| #403 | Johnson Products Co., Inc., Carson Products | 8522 S Lafayette Ave, Chicago | None | Y | N | mineral oil | 773-483-4100 ext. 736 | 773-483-4100 ext. 736 |
| #407 | Ingersoll Products Co., Ingersoll Products Co. | 1000 W 120th St, Chicago | MSD Sewers | Y | N | quench oil | 773-264-7800 | 773-264-7800 ext. 172 |
| #413 | Republic Engineered Steels, Inc., Republic Engineered Steels, Inc. | 11610 S Ave O, Chicago | Calumet River, Mile 329 | Y | N | fuel, motor, hydraulic, and lubricating oil | 312-933-4444 | 773-933-4554 |
| #500 | Union Pacific Railroad, Union Pacific Railroad Co. | 147th & Indiana Ave, Dohon | Victory Lake | Y | N | Diesel, kerosene, lube oil, waste oil | 800-893-1293 | 402-271-5767 |
| #520 | Acme Steel Co., Acme Steel Co. | 13500 S Perry Ave, Riverdale | Little Calumet River, Mile 321-322 | N | N | #1 & #2 diesel fuel, hydraulic fluid | 708-849-2500 | 708-841-8383 ext. 2438; 708-849-2500 |
| #521 | Acme Steel Co., Acme Steel Co. | 11236 S Torrence Ave, Chicago | Calumet River, Mile 329 | N | N | coal tar, #2 fuel oil, distillates, bulk oil | 708-849-2500 | 708-841-8383 ext. 2438; 773-933-5000 |
| #526 | Ashland Chemical Co., Ashland Chemical Co. | 142nd St & Paxton Ave, Calumet City | Little Calumet River, Mile 325 | N | N | hexane isomers, benzene solvent, duplicating fluid | 708-891-8230 | 708-891-8230 |
| #538 | Chicago Specialties, Inc., Chicago Specialties, Inc. | 735 E 115th St, Chicago | Lake Calumet | N | N | linseed oil, ortho & para cresol, hydrocol, aniline | 773-660-4000 | 773-660-4017 |
| #542 | Clean Harbors Services, Inc., Clean Harbors Services, Inc. | 11800 S Stony Island Ave, Chicago | Lake Calumet | N | N | #2 fuel oil, waste oil | 312-646-6202; 773-646-6202 | 312-646-6202; 773-646-6202 |
| #548 | CSX Transportation- Barr Yard, CSX Transportation | 135th St & Perry Ave, Riverdale | Little Calumet River, Mile 320 | N | N | #1 & #2 fuel oil, gasoline, used oil, diol 20W-40 | 904-359-7551 | 708-201-5126; 708-201-5174 |
| #550 | Calumet TSS-150 Peakers, Midwest Generation, LLC | 3200 E 106th St, Chicago | Calumet River, Mile 332 | N | N | diesel fuel, mineral oil, turbine oil | 815-942-4500 ext.2289 | 815-942-4500 ext.2202 |
| #593 | Norfolk Southern Railway Co., Norfolk Southern Railway Co. | 2040 E 106th St, Chicago | Calumet River, Mile 330 | N | N | gasoline, kerosene, lub. oil, diesel fuel | 312-933-8090 | 773-933-8014 |
| #605 | Jays Foods Inc., Jays Foods, Inc. | 825 E 99th St, Chicago | Near Lake Calumet, Mile 3.0 | N | N | vegetable oil | 773-731-8400 | 773-731-8400 |

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Oil Storage Facilities, continued

| Item | Facility, Operator | Address | Waterbody | Response Plan | Marine Transfer | Products | Emergency # | Contact # |
|------|---|------------------------|--------------------------------|---------------|-----------------|--|--------------|--------------|
| #606 | Safety Kleen Corp., Safety-Kleen Corp. | 633 E 138th St, Dolton | Little Calumet River, Mile 0.2 | N | N | aromatics, pyroiodane, lacquer thinner, rms. sp. | 708-849-4850 | 708-849-4850 |
| #613 | Texas Eastern Products, TE Products Pipeline Co. LP | 3645 W 131st St, Alsip | Calumet Saginaw Channel | N | N | jet-A, kerosene | 812-522-3715 | 708-534-6266 |

Petroleum Pipelines

| Item | Company Name | Route Name | # Lines | Diameters | Products | Emergency # | Contact # |
|-------|-------------------------------------|--|---------|------------------|------------------------|-------------------------------|--------------|
| PL1 | Chicago/Unocal Pipeline Co. | Monroe Station to Blue Island Refinery | 1 | 12-inch | Crude Oil | 800-285-8744 | 708-479-9260 |
| PL12 | West Shore Pipeline Co. | Green Bay to Chicago | 2 | 16-inch, 10-inch | Refined Products | 888-625-7310 | 630-257-3742 |
| PL44 | Amoco Pipeline Co. | Chicago Xylene Line | 1 | 8-inch | Highly Volatile Liquid | 800-588-6482 | 630-836-5315 |
| PL48 | Chicago/Unocal Pipeline Co. | Mokena St to Clark Refinery | 1 | 14-inch | Crude Oil | 800-285-8744 | 708-479-9260 |
| PL98 | Texas Eastern Products Pipeline Co. | TEPPCO - Orland Park to Blue Island | 1 | 14-inch | Refined Products | 800-877-3636; 713-759-4765 | 800-877-3636 |
| PL99 | Texas Eastern Products Pipeline Co. | TEPPCO - Blue Island Bullpoin to Blue Island | 1 | 14-inch | Refined Products | 800-877-3636; 713-759-4765 | 800-877-3636 |
| PL115 | Texas Eastern Products Pipeline Co. | TEPPCO - Blue Island to West Shore | 1 | 14-inch | Refined Products | 800-877-3636; 713-759-4765 | 800-877-3636 |
| PL119 | West Shore Pipeline Co. | East Chicago to Madison | 1 | 12-inch | Refined Products | 888-625-7310 | 847-439-0270 |
| PL128 | Marathon Ashland Pipeline, LLC | Hammond to Lockport 6" | 1 | 6-inch | Refined Products | 800-537-6644 | 419-421-2121 |
| PL129 | Marathon Ashland Pipeline, LLC | Wabash 12" Products | 2 | 12-inch | Refined Products | 800-537-6644 | 419-421-2121 |

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Appendix B. Sensitive Species and Natural Communities

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 5 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 6 | Aquatic/Riparian Zone Vascular Plants | - | X | - | X |
| 7 | Aquatic/Riparian Zone Vascular Plants | - | X | X | - |
| 9 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 11 | Aquatic/Riparian Zone Vascular Plants | X | - | X | - |
| 13 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 14 | Aquatic/Riparian Zone Vascular Plants | X | X | - | X |
| 15 | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| 21 | Upland Zone Vascular Plants | - | X | - | - |
| 23 | Upland Zone Vascular Plants | - | X | X | - |
| 25 | Upland Zone Vascular Plants | X | - | - | - |
| 29 | Upland Zone Vascular Plants | X | X | - | - |
| 37 | Aquatic/Riparian Zone Birds | - | X | - | - |
| 41 | Aquatic/Riparian Zone Birds | X | - | - | - |
| 45 | Aquatic/Riparian Zone Birds | X | X | - | - |
| 53 | Terrestrial Zone Birds | - | X | - | - |
| 57 | Terrestrial Zone Birds | X | - | - | - |
| 69 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| 73 | Aquatic/Riparian Zone Amphibians and Reptiles | X | - | - | - |
| 77 | Aquatic/Riparian Zone Amphibians and Reptiles | X | X | - | - |
| 105 | Aquatic/Riparian Zone Mammals | X | - | - | - |
| 133 | Aquatic/Riparian Zone Invertebrates | - | X | - | - |
| 134 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| 137 | Aquatic/Riparian Zone Invertebrates | X | - | - | - |
| 141 | Aquatic/Riparian Zone Invertebrates | X | X | - | - |
| 150 | Terrestrial Zone Invertebrates | - | X | - | X |
| 165 | Fish | - | X | - | - |
| 169 | Fish | X | - | - | - |
| 173 | Fish | X | X | - | - |
| 177 | Aquatic Natural Communities | - | - | - | - |
| 193 | Terrestrial Zone Natural Communities | - | - | - | - |
| 1006 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | X | X | - | - |
| | Fish | X | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1010 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1011 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1016 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1017 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1024 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1028 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | X | X | - | - |
| 1032 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1035 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---------------------------------------|------------------|------------------|--------------------|--------------------|
| 1037 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Fish | X | X | - | - |
| 1040 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Fish | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1041 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Fish | - | X | - | - |
| 1043 | Upland Zone Vascular Plants | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1045 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1046 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1048 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | X | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1059 | Aquatic/Riparian Zone Birds | X | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1073 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1081 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1085 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1088 | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1089 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1093 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1094 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1097 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | X | - | - | - |
| 1107 | Terrestrial Zone Birds | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1108 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1109 | Aquatic/Riparian Zone Amphibians and Reptiles | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Fish | X | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1115 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1123 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1124 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1127 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Fish | - | X | - | - |
| 1128 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1129 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1137 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1143 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Fish | X | - | - | - |
| 1146 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Fish | X | - | - | - |
| 1166 | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1170 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Fish | - | X | - | - |
| 1171 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1186 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1192 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1196 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1200 | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1217 | Aquatic/Riparian Zone Amphibians and Reptiles | X | - | - | - |
| | Aquatic/Riparian Zone Birds | X | - | - | - |
| 1222 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1225 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1231 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1232 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1234 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |

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Sensitive Species and Natural Communities, continued

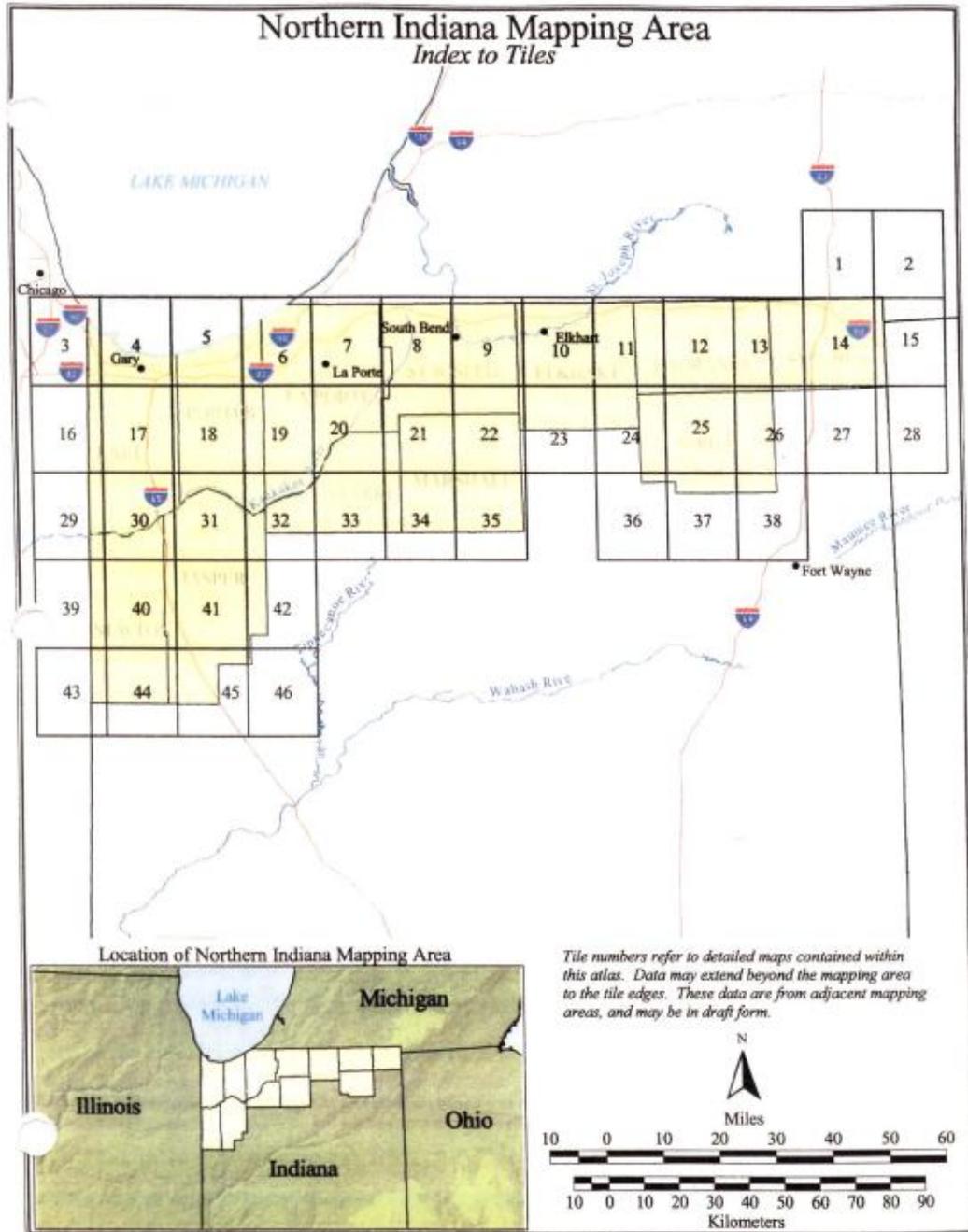
| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1237 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1238 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1239 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Fish | - | X | - | - |
| 1245 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1262 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1271 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | X | - |
| 1272 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1276 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1278 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1283 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1284 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1287 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1289 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1290 | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1295 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1301 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | X | - | - | - |
| | Terrestrial Zone Invertebrates | X | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1305 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1309 | Aquatic/Riparian Zone Vascular Plants | - | X | X | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1311 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1319 | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1326 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1384 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1385 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1393 | Aquatic/Riparian Zone Amphibians and Reptiles | X | - | - | - |
| | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |

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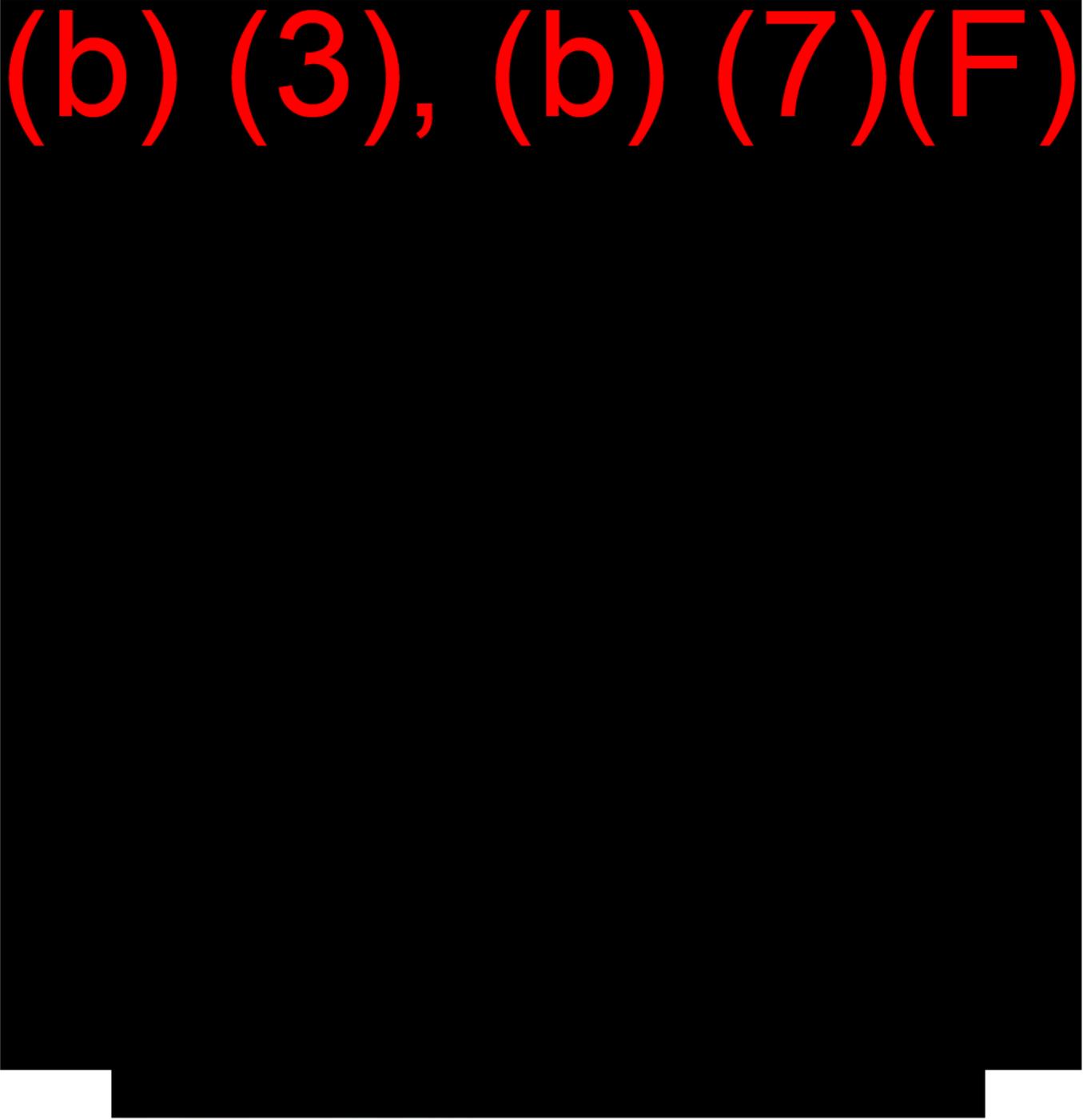
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(b) (3), (b) (7)(F)



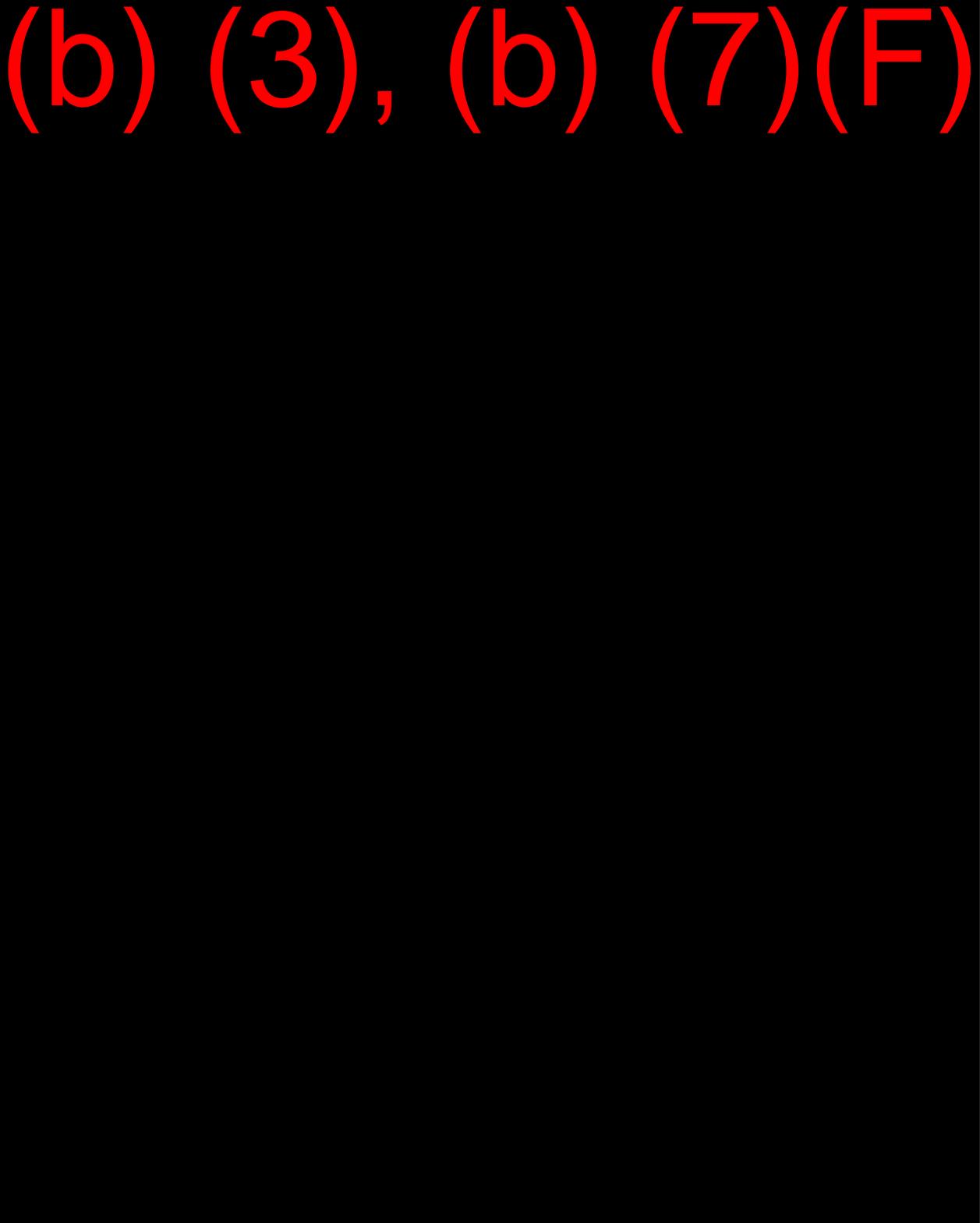
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(b) (3), (b) (7)(F)

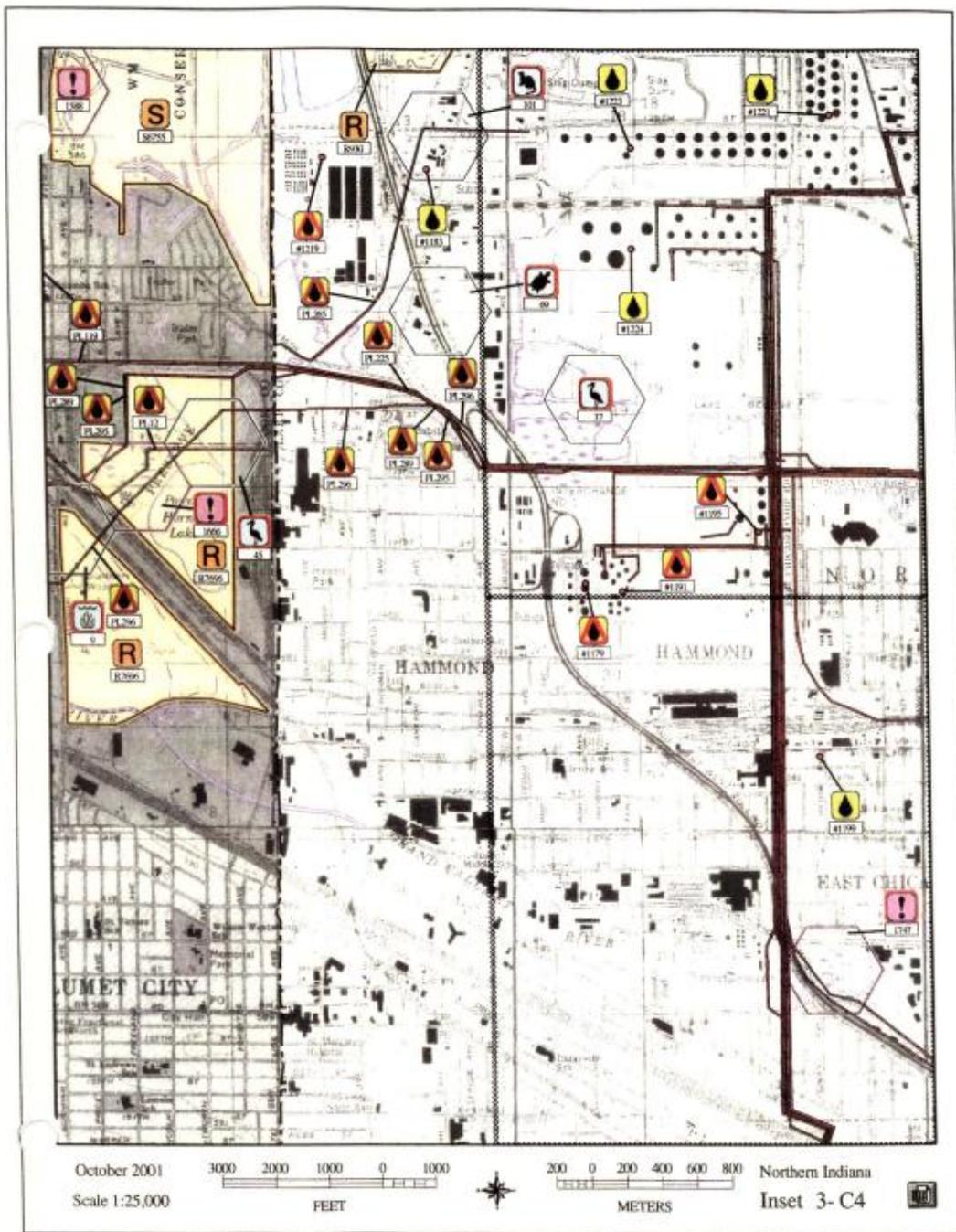


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Sensitive Species*

| Listing | Contact Name | Emergency Phone | Contact Phone |
|-------------------|--|-----------------|---------------|
| Federal (Indiana) | U.S. Fish and Wildlife Service, Bloomington Field Office | 800-800-6923 | 812-334-4261 |
| (Illinois) | U.S. Fish and Wildlife Service, Barringtona Field Office | 800-800-6923 | 847-381-2253 |
| State | Illinois DNR Division of Fish and Wildlife | None | 317-232-4040 |
| | Illinois DNR Division of Natural Heritage | 217-783-7860 | 217-785-8774 |

Managed Areas

| Icon Number | Name | Category | Managing Agency | Waterbody | Emergency Phone | Contact Phone | Comments |
|-------------|---------------------------|-------------------------|-------------------------------------|--|-----------------|---------------|------------------------------|
| R929 | Wicker Memorial Park | City Park | City of Highland | Little Calumet | 219-755-3300 | 219-838-9833 | |
| R930 | Wolf Lake Park | City Park | City of Hammond, Parks Department | Wolf Lake | 318-755-3300 | 219-853-6378 | |
| R954 | Wilaha Beach County Park | County Park | Lake County Parks and Recreation | Lake Michigan | 219-755-3300 | 219-755-3685 | jur. 41.6889, long. -87.6989 |
| R7696 | Calumet Divisions CFP | County Forest Preserve | Cook County FPD | Grand Calumet, Little Calumet Rivers, Wolf Lake, | 708-771-1000 | 708-771-1330 | |
| R7697 | Timley Creek Division CFP | County Forest Preserve | Cook County FPD | Wetlands, streams, many lakes | 708-771-1000 | 708-771-1330 | |
| R7783 | Thorn Creek Division CFP | County Forest Preserve | Cook County FPD | Thorn Creek, Calumet River, wetlands, lakes | 708-771-1000 | 708-771-1330 | |
| S6755 | William W. Powers | State Conservation Area | IL DNR, Division of Land Management | | 317-782-7860 | 773-646-3270 | |

Special Designated Areas

| Icon Number | Designated Area Name | Designation Program or Category | Designating Agency | Waterbody | Emergency Phone | Contact Phone | Comments |
|-------------|--------------------------|---------------------------------|--------------------------------|-----------|------------------|------------------|---|
| S845 | Carthage-Markham Prairie | Nature Preserve | IL Nature Preserves Commission | wetlands | 708-687-6028 (h) | 708-687-6028 (h) | Land owned by Northeastern Illinois University, DNC, and others. Contacts: Ron Peszer, Land Manager & IL Nature Preserves Commission. |
| S8931 | Jurgenson Woods | Nature Preserve | IL Nature Preserves Commission | wetlands | 708-771-1330 | 708-771-1600 | Owens/Jurgenson by Cook County FPD. 24-hour emergency in Forest Preserve District Police. |

* 2001 Indiana Natural Heritage Data provided by the Indiana Department of Natural Resources, Division of Fish and Wildlife.
 2001 Illinois Natural Heritage Data provided by the Illinois Department of Natural Resources, Division of Natural Heritage.

Northern Indiana Atlas - Tile 3 (Continued)

Special Designated Areas (Continued)

| Icon Number | Designated Area Name | Designation Program or Category | Designating Agency | Waterbody | Emergency Phase | Contact Phone | Comments |
|-------------|-----------------------|---------------------------------|--------------------------------|-----------------------|-----------------|-------------------------------|--|
| S6950 | Sand Ridge | Nature Preserve | IL Nature Preserves Commission | Green Lake, wetlands | 708-771-1008 | 708-771-1330; 217-785-8686 | Remnant native ecosystems - sand dunes, prairie, savanna. 24-hour emergt in Forest Preserve District Police. Owned/managed by Cook County FPD. |
| S6956 | Thornton-Lanning Road | Nature Preserve | IL Nature Preserves Commission | creek, lake, wetlands | 708-771-1000 | 708-771-1330; 217-785-8686 | Remnant native ecosystems - marsh, woodland. Owned/managed by Cook County FPD. 24-hour emergt in Forest Preserve District Police. |
| S7403 | Dropsed Prairie | Nature Preserve | IL Nature Preserves Commission | none | 217-782-7660 | 217-785-8686 | Recently dedicated Nature Preserve. Site has rare biological/geological resources. |
| S7404 | Paintbrush Prairie | Nature Preserve | IL Nature Preserves Commission | none | 217-782-7660 | 217-785-8686 | Recently dedicated Nature Preserve. Site has rare biological/geological resources. |

Marinas

| Icon Number | Name | Street Address | Waterbody | River Mile | Stops | Fuel Available | Emergency Phase | Contact Phone |
|-------------|--|------------------------------------|----------------------|------------|-------|----------------|------------------|---------------|
| M0287 | Crossant Marina | 14062 S Crossant Dr, Burnham | Little Calumet River | 325.5 LDB | 40 | No | 708-891-0400 | 708-891-0400 |
| M0295 | Pier 11 Marina | 826 E 138th St, Chicago | Little Calumet River | 323.2 LDB | 134 | No | 773-415-1359 | 773-468-8605 |
| M0296 | Rentier's Marine Service | 13515 S Forest Ave, Chicago | Little Calumet River | 322.7 LDB | 5 | No | 708-614-7656 (h) | 773-668-3776 |
| M0299 | Windjammer Marina | 13701 S Hoxic Ave, Chicago | Calumet River | 326.2 LDB | 45 | No | none | 773-646-2071 |
| M0338 | Skupper's Marina | 13421 S Vernon Ave, Riverdale | Little Calumet River | 322.8 LDB | 25 | Yes | 312-928-5201 | 773-928-5290 |
| M0339 | Triplets Marina | 13141 St and Halsted St, Riverdale | Little Calumet River | 320.0 LDB | 40 | Yes | 708-849-2200 | 708-849-2200 |
| M0505 | Marine Services Corp. / Delton Yacht Basin | 140 Cottage Grove Ave, Dolton | Little Calumet River | 324.0 LDB | Yes | No | 847-499-0188 | 708-841-5660 |
| M0506 | Riley's Marina | 14062 Crossant Dr, Burnham | Little Calumet River | 325.2 LDB | 40 | No | none | 708-868-0567 |
| M3015 | Hammond Marina | 701 Congress Drive, Hammond | Lake Michigan | N/A | 982 | Yes | 219-6597678 | 219-659-7678 |
| M3017 | Illiana Yacht Club | 2012 114th Avenue, Whiting | Wolf Lake | N/A | 1 | No | 219-755-3300 | 219-659-9002 |
| M6535 | Riverside Marina & Lounge | 13603 S Calhoun Ave, Chicago | Little Calumet River | N/A | Yes | Yes | none | 773-646-5100 |

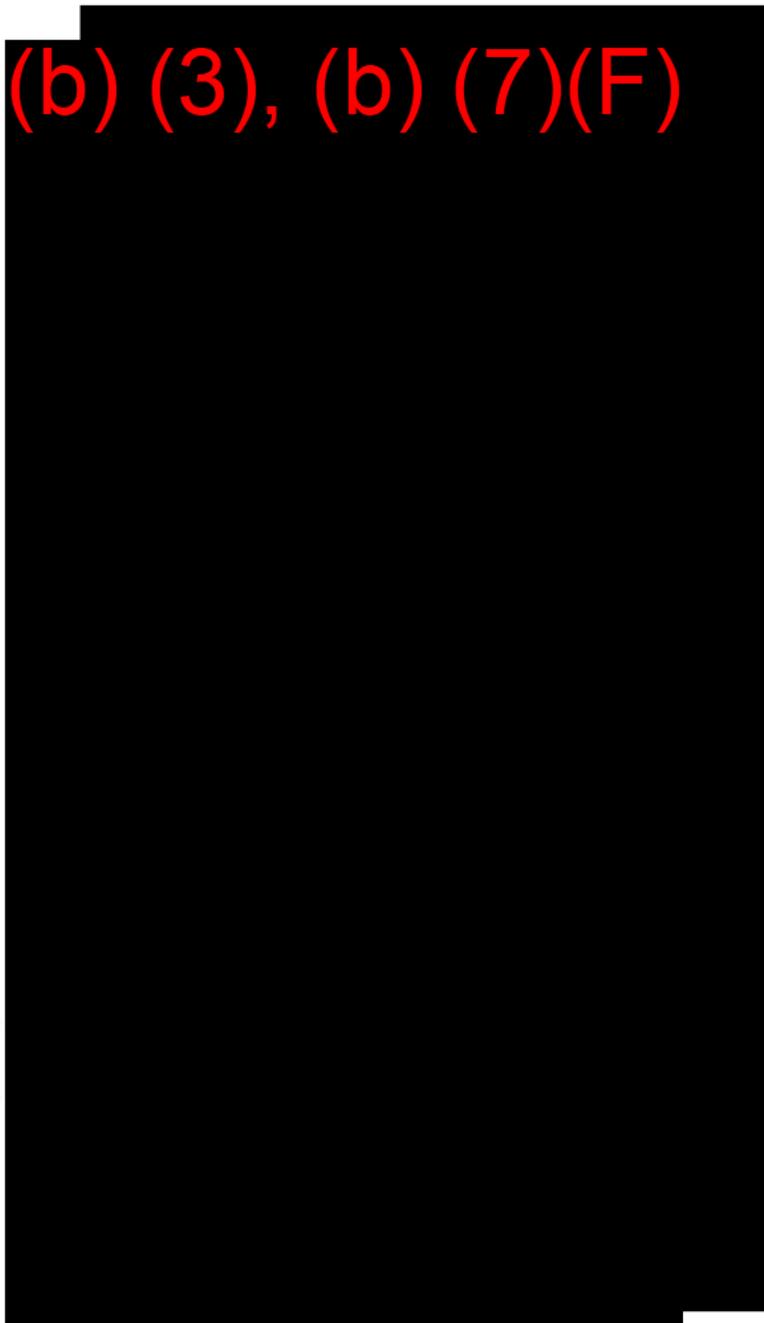
Navigation Locks and Dams

| Icon Number | Name | Street Address | Waterbody | River Mile | Emergency Phase | Contact Phone |
|-------------|------------------------|---------------------------------|----------------|------------|-----------------|---------------|
| LDBR | Thomas J. O'Brien Lock | 1340th & Calumet River, Chicago | Illinois River | 326.5 | 312-646-2183 | 312-646-2183 |

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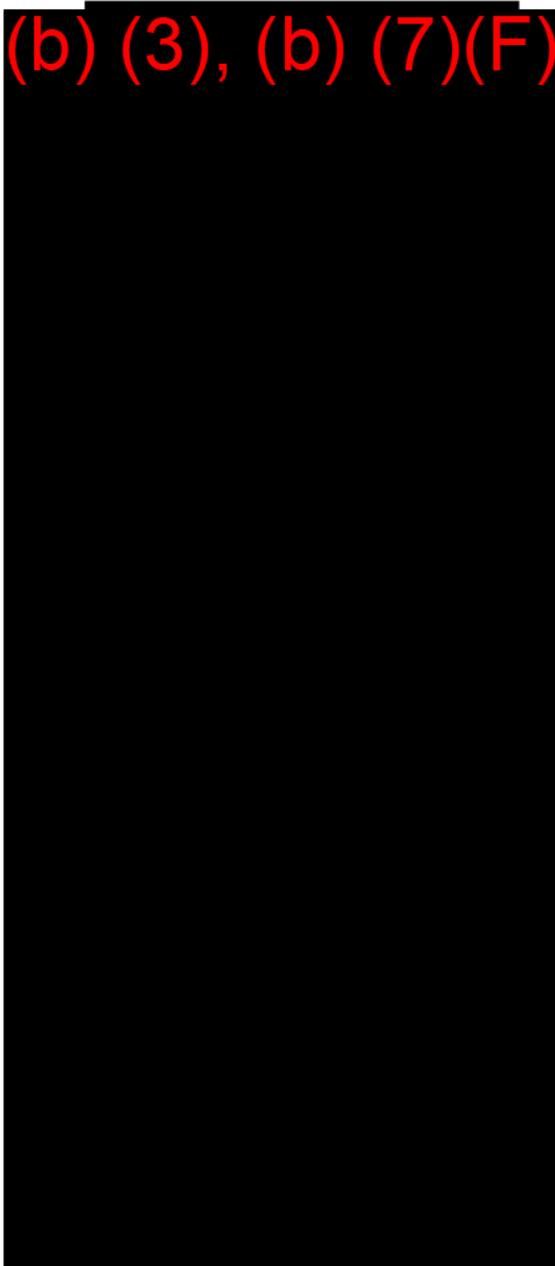


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| Icon Number | Name | Operator | Street Address | Waterbody | River Mile | Facility Receipts Plan | Storage Treatment Facility | Product/ Hazzmat | Phone | Contact Person |
|-------------|------------------------|------------------------------|-----------------------------------|---------------|------------|------------------------|----------------------------|---|--------------------------------|----------------------------|
| #243 | Strohaven Chicago Inc. | Stroh-Nelson Terminals, Inc. | 12200 S Stony Island Ave, Chicago | Lake Calumet | 327.9 LDB | Yes | Yes | petrochemical/animal fats/vegetable oil | 708-438-7554 (h); 312-349-4304 | 773-646-4440; 773-646-8147 |
| #243 | Strohaven Chicago Inc. | Stroh-Nelson Terminals, Inc. | 12200 S Stony Island Ave, Chicago | Lake Calumet | 327.9 LDB | Yes | Yes | petrochemical/animal fats/vegetable oil | 708-438-7554 (h); 312-349-4304 | 773-646-4440; 773-646-8147 |
| #244 | Cargill, Inc. | Cargill, Inc. | 12200 S Torrence Ave, Chicago | Calumet River | 128.8 RDB | Yes | No | soybean oil | 773-375-7353; 312-343-1686 | 773-375-7255; 219-755-0135 |

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Northern Indiana Atlas - Tile 3 (Continued)

| Leak Number | Leak Name | Operator | Street Address | Waterbody | River Mile | Facility Response Plan | Marine Transfer Facility | Products Handled | Emergency Phone | Contact Phone |
|-------------|----------------------------------|----------------------------------|-------------------------------------|-------------------------|------------|------------------------|--------------------------|---|-----------------------|--------------------------------------|
| #247 | S.T. Services | Support Terminal Services, Inc. | 3210 W 131st St, Blue Island | Calamet Saginaw Channel | 316.5 RDB | Yes | No | petroleum products, natural gas, oil | 708-388-5881 | 708-388-5801 |
| #248 | Premcor Blue Island Refinery | Premcor Refining Group | 13100 S Kedzie Ave, Blue Island | Calamet Saginaw | 316.8 RDB | Yes | Yes | Petroleum products, asphalt, crude oil | 708-385-5000 ext. 205 | 708-385-5000 ext. 223 |
| #248 | Premcor Blue Island Refinery | Premcor Refining Group | 13100 S Kedzie Ave, Blue Island | Calamet Saginaw | 316.8 RDB | Yes | Yes | Petroleum products, asphalt, crude oil | 708-385-5000 ext. 205 | 708-385-5000 ext. 223 |
| #248 | Premcor Blue Island Refinery | Premcor Refining Group | 13100 S Kedzie Ave, Blue Island | Calamet Saginaw | 316.8 RDB | Yes | Yes | Petroleum products, asphalt, crude oil | 708-385-5000 ext. 205 | 708-385-5000 ext. 223 |
| #249 | LTV Steel Co. | LTV Steel Co. | 11660 S Baulleigh Ave, Chicago | Calamet River | 329.2 LDB | Yes | No | petroleum products | 773-933-4337 | 773-933-4108 |
| #279 | PM Ag Products, Inc. | PM Ag Products, Inc. | 13550 S Indiana Ave, Riverdale | Little Calumet River | 322.3 LDB | Yes | Yes | sunflower oil | 708-849-9220 | 708-849-9220 |
| #380 | James Towing | James Towing | 400 E Sibley Blvd, Harvey | Calamet River | | Yes | No | petroleum products | 708-596-7722 | 708-596-7722 |
| #384 | Calumet Lubricants Co. | Calumet Lubricants Co. | 14000 Mackinaw Ave, Chicago | Grand Calumet River | | Yes | No | lubricating oils | 219-923-7716 | 708-862-9100 |
| #401 | Ford Motor Co. | Ford Motor Co. | 12600 S Torrence Ave, Chicago | Calamet River | | Yes | No | fuel and hydraulic oil & gasoline | 773-646-7200 | 773-646-7472 |
| #403 | Johanson Products Co., Inc. | Carson Products | 8522 S Lafayette Ave, Chicago | None | | Yes | No | mineral oil | 773-483-4100 ext. 359 | 773-483-4100 ext. 706 |
| #407 | Ingersoll Products Co. | Ingersoll Products Co. | 1000 W 120th St, Chicago | MSD Sewers | | Yes | No | quench oil | 773-266-7800 | 773-266-7800 |
| #413 | Republic Engineered Steels, Inc. | Republic Engineered Steels, Inc. | 11610 S Ave O, Chicago | Calamet River | 329 | Yes | No | fuel, motor, hydraulic, and lubricating oil | 312-933-4444 | 773-933-4554 |
| #500 | Union Pacific Railroad Co. | Union Pacific Railroad Co. | 147th & Indiana Ave, Dolton | Victory Lake | | Yes | No | diesel/kerosene/tube oil/waste oil | 890-392-1293 | 402-271-5767 |
| #520 | Acme Steel Co. | Acme Steel Co. | 13500 S Perry Ave, Riverdale | Little Calumet River | 321-322 | No | No | #1 & #2 diesel fuel, hydraulic fluid | 708-849-2500 | 708-841-8383 ext. 2438; 708-849-2500 |
| #521 | Acme Steel Co. | Acme Steel Co. | 11236 S Torrence Ave, Chicago | Calamet River | 329 | No | No | soal tar, #2 fuel oil, distillates, lusk oil | 708-849-2500 | 708-841-8383 ext. 2438; 773-933-5000 |
| #526 | Ashland Chemical Co. | Ashland Chemical Co. | 142nd St & Paxton Ave, Calumet City | Little Calumet River | 325 | No | No | brass isomers, heptane isobut, dipalmitic fluid | 708-891-8230 | 708-891-8230 |

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Northern Indiana Atlas - Tile 3 (Continued)

Oil Storage Facilities (Continued)

| Icon Number | Name | Operator | Street Address | Waterbody | River Mile | Facility Response Plan | Marine Transfer Facility | Products Handled | Emergency Phone | Contact Phone |
|-------------|--|---|--------------------------------------|-------------------------|------------|------------------------|--------------------------|---|-------------------------------|-------------------------------|
| 4538 | Chicago Specialties, Inc. | Chicago Specialties, Inc. | 735 E. 115th St, Chicago | Lake Calumet | | No | No | linseed oil, oriso & pentaerosol, hydrosol, aniline | 773-660-4000 | 773-660-4017 |
| 4542 | Clean Harbors Services, Inc. | Clean Harbors Services, Inc. | 11800 S Stony Island Ave, Chicago | Lake Calumet | NA | No | No | #2 fuel oil, waste oil | 312-646-6202; 773-646-6202 | 312-646-6202; 773-646-6202 |
| 4548 | CSX Transportation-Barr Yard | CSX Transportation | 135th St & Perry Ave, Riverdale | Little Calumet River | 320 | No | No | #1 & #2 fuel oil, gasoline, used oil, diol 20W-40 | 984-359-7551 | 708-201-5126; 708-201-5174 |
| 4550 | Calumet TSS-150 Peablers | Midwest Generation, LLC | 3200 E 106th St, Chicago | Calumet River | 332 | No | No | direct fuel, mineral oil, turbine oil | 815-942-4500 ext.2289 | 815-942-4500 ext.2202 |
| 4593 | Norfolk Southern Railway Co. | Norfolk Southern Railway Co. | 2040 E 106th St, Chicago | Calumet River | 330 | No | No | gasoline, kerosene, lhb oil, diesel fuel | 312-933-8090 | 773-933-8014 |
| 4605 | Jays Foods Inc. | Jays Foods, Inc. | 825 E 99th St, Chicago | Near Lake Calumet | 3.0 | No | No | vegetable oil | 773-731-8400 | 773-731-8400 |
| 4606 | Safety Kleen Corp. | Safety Kleen Corp. | 633 E 131th St, Dolton | Little Calumet River | 0.2 | No | No | aromatics, pyrolytic, laquer thinner, mineral sp. | 708-849-4850 | 708-849-4850 |
| 4613 | Texas Eastern Products | TE Products Pipeline Co., LP | 3645 W 131st St, Alton | Calumet Saginaw Channel | | No | No | jet-a-kerosene | 812-522-3715 | 708-534-6266 |
| 41172 | Ceresstar USA, Inc | Ceresstar USA, Inc. | 1100 Indianapolis Boulevard, Hammond | WOLF Lake/Lake Michigan | N/A | No | No | Mineral, vegetable, lubricating, No. 6 fuel oil | 219-659-2000 | 219-658-2000 |
| 41173 | Whiting Refinery, Amoco Petroleum Products | Amoco Petroleum Products, Refining Business Group | 2815 Indianapolis Boulevard, Whiting | Lake Michigan | N/A | Yes | Yes | LP distillate, slop wax, diesel fuel, gas oil. | 219-473-7700 | 219-473-3356 |
| 41179 | Clark Oil & Refining | Clark Oil & Refining | 1020 141st Street, Hammond | Lake George Canal | N/A | Yes | No | Gasoline, kerosene, fuel oil | 219-755-3300 | 219-933-3390 |
| 41183 | Ferro | Ferro | 3000 Sheffield Avenue, Hammond | Wolf Lake | N/A | No | No | Com, soybeans, distilled tall, neutral & lard oil. | 219-931-2630 | 219-931-2630 |
| 41191 | Marathon Ashland Petroleum LLC | Marathon Ashland Petroleum LLC | 4206 Columbia Avenue, Hammond | Lake George | N/A | Yes | No | No.1 Kerosene, No.2 high & low sulfur fuel oil. | 877-627-5521 | 219-932-1024 |

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Northern Indiana Atlas - Tile 3 (Continued)

Oil Storage Facilities (Continued)

| Item Number | Company Name | Operator | Street Address | Waterbody | River Mile | Facility Response Plan | Marine Transfer Facility | Products Handled | Emergency Phone | Contact Phone |
|-------------|--|---|--|---------------------------------------|------------|------------------------|--------------------------|--|-----------------|---------------|
| #1195 | Mobil Oil - Hammond Terminal | Mobil Oil Corporation | 1527 141st Street, Hammond | Lake George/Indiana Harbor Ship Canal | N/A | Yes | No | Gasoline, No.1 low sulfur diesel, ethanol. | 219-933-6654 | 219-933-6050 |
| #1199 | Peoples, Inc. | George Collins | 1312 W. Chicago Avenue, Hammond | Indiana Harbor Canal | N/A | No | No | N/A | 219-755-3300 | 219-932-0293 |
| #1218 | Witham Sales & Service, Inc. | Jim Witham | 6435 Howard Avenue, Hammond | Little Calumet River | N/A | No | No | Gasoline, petroleum, distillate. | 219-932-0352 | 219-932-0352 |
| #1219 | Wolf Lake Terminals, Inc. | Wolf Lake Terminals, Inc. | 2800 Sheffield Avenue, Hammond | Wolf Lake | N/A | Yes | No | White oils, lube oils, base oils, used oils. | 219-755-7980 | 219-937-4300 |
| #1221 | Indiana Tank Field, Whiting Refinery, | Amoco Petroleum Products, Refining Business Group | SR 912 at SR 20 (Indianapolis Blvd), Whiting | Grand Calumet River | N/A | Yes | No | LP distillate, slop wax, diesel fuel, gas oil. | 219-473-7700 | 219-473-3356 |
| #1223 | Lake George Tank Field, Whiting Refinery, Amoco | Amoco Petroleum Products, Refining Business Group | 129th Street at Calumet Ave., Whiting | Wolf Lake | N/A | Yes | No | LP distillate, slop wax, diesel fuel, gas oil. | 219-473-7700 | 219-473-3356 |
| #1224 | J & L Tank Field, Whiting Refinery, Amoco Petrol | Amoco Petroleum Products, Refining Business Group | SR 912 at Calumet Ave., Whiting | Indiana Harbor Canal | N/A | Yes | No | LP distillate, slop wax, diesel fuel, gas oil. | 219-473-7700 | 219-473-3356 |

Pipelines

| Item Number | Company Name | Route Name | Number of Pipes in Route | Diameters | Products Carried in Line | Emergency Phone | Contact Phone |
|-------------|-------------------------------------|--|--------------------------|-----------|--------------------------|-----------------|---------------|
| PL1 | Chicago/Unocal Pipeline Co. | Monroe Station to Blue Island Refinery | 1 | 12" | Crude | 800-285-8744 | 708-479-9260 |
| PL12 | West Shore Pipe Line Company | Green Bay to Chicago | 2 | 10" | Refined | 888-635-7310 | 630-257-3742 |
| PL48 | Chicago/Unocal Pipeline Co. | Mohena St to Clark Refinery | 1 | 14" | Crude | 800-285-8744 | 708-479-9260 |
| PL58 | Texas Eastern Products Pipeline Co. | TEPPCO - Orland Park to Blue Island | 1 | 14" | Refined | 800-877-3636 | 800-877-3636 |
| PL59 | Texas Eastern Products Pipeline Co. | TEPPCO - Blue Island Bulfinch to Blue Island | 1 | 14" | Refined | 800-877-3636 | 800-877-3636 |
| PL115 | Texas Eastern Products Pipeline Co. | TEPPCO - Blue Island to West Shore | 1 | 14" | Refined | 800-877-3636 | 800-877-3636 |

Inland Sensitivity Atlas - Northern Indiana

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Northern Indiana Atlas - Tile 3 (Continued)

Pipelines (Continued)

| Icon Number | Company Name | Route Name | Number of Pipes in Route | Diameters | Products Carried in Line | Emergency Phone | Contact Phone |
|-------------|------------------------------|--|--------------------------|--------------|--------------------------|-------------------------------|--------------------------------------|
| PL119 | West Shore Pipe Line Company | East Chicago to Madison, 12" | 1 | 12" | Refined | 888-625-7310 | 847-439-0270 |
| PL173 | BP Pipeline North America | Freeport, MO to Manhattan, IL | 1 | 20" | Crude | 800-548-6482 | 918-600-4363; 918-607-4363 (cell) |
| PL225 | West Shore Pipe Line Company | Hammond Station to Bell | 1 | 16" | Refined | 888-625-7310 | 630-257-3742 |
| PL226 | West Shore Pipe Line Company | Hammond Station to Phillips | 1 | 16" | Refined | 888-625-7310 | 630-257-3742 |
| PL227 | West Shore Pipe Line Company | Hammond Station to Clegg | 1 | 16" | Refined | 800-806-3449 | 630-257-3742 |
| PL228 | West Shore Pipe Line Company | Hammond Station to Shell | 1 | 16" | Refined | 888-625-7310 | 630-257-3742 |
| PL229 | West Shore Pipe Line Company | Hammond Station to Amoco | 1 | 16" | Refined | 888-625-7310 | 630-257-3742 |
| PL230 | West Shore Pipe Line Company | Hammond Station to MT | 1 | 16" | Refined | 888-625-7310 | 630-257-3742 |
| PL231 | West Shore Pipe Line Company | Hammond Station to Mobil Tank Farm | 1 | 16" | Refined | 888-625-7310 | 630-257-3742 |
| PL237 | Buckeye Pipe Line Company | 010 | 1 | 10" | Refined | 800-331-4115 | 800-523-9420 |
| PL242 | Explorer Pipeline Company | Hammond Station - East Chicago Meter | 3 | 14" | Refined | 888-876-0036; 918-493-5100 | 918-493-5143; 219-989-8250 |
| PL246 | Explorer Pipeline Company | E. Chicago Junction to Clark Facility 14 | 1 | 14" | Refined | 888-876-0036; 918-493-5100 | 918-493-5143; 219-989-8250 |
| PL250 | West Shore Pipe Line Company | Amoco Refinery to East Chicago | 1 | 17" | Refined | 888-625-7310 | 773-625-7310 |
| PL251 | West Shore Pipe Line Company | East Chicago to Crawl Junction | 1 | 12" | Refined | 888-625-7310 | 773-625-7310 |
| PL256 | Wolverine Pipe Line Company | Clark Marathon Feeder Line | 2 | 16" | Refined | 888-337-5004; 219-844-9510 | 616-323-2891 ext. 24 |
| PL257 | Wolverine Pipe Line Company | Kennedy to White Oak 16" | 2 | 16" | Refined | 888-337-5004; 219-844-9510 | 616-323-2891 ext. 24 |
| PL262 | TransMontaigne Pipeline Inc. | Lake George Line | 2 | 8" | Refined | 800-732-8140 | 800-732-8140 ext. 5 |
| PL263 | TransMontaigne Pipeline Inc. | Lake George Line | 2 | 8" | Refined | 800-732-8140 | 800-732-8140 ext. 5 |
| PL265 | BP Pipeline North America | Whiting - Decatur Xylene Line | 1 | 8" | Refined | 800-548-6482 | 216-586-2103 |
| PL266 | BP Pipeline North America | White Oak | 1 | 8", 10", 12" | Refined | 800-548-6482 | 216-586-2103 |
| PL267 | BP Pipeline North America | Whiting-Bohannon | 1 | 8", 10", 12" | Refined | 800-548-6482 | 216-586-2103 |
| PL268 | BP Pipeline North America | Chicago Crude 16" | 1 | 16" | Crude | 800-548-6482 | 216-586-2103 |
| PL269 | BP Pipeline North America | Chicago Crude 18" | 1 | 18" | Crude | 800-548-6482 | 216-586-2103 |
| PL271 | BP Pipeline North America | Whiting - Indianapolis | 1 | 8" | Refined | 800-548-6482 | 216-586-2103 |
| PL277 | BP Pipeline North America | Chicago 22" CCPS Crude Line | 1 | 22" | Crude | 800-548-6482 | 216-586-2103 |

Inland Sensitivity Atlas - Northern Indiana

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Northern Indiana Atlas - Tile 3 (Continued)

Pipelines (Continued)

| Icon Number | Company Name | Route Name | Number of Pipes in Route | Diameters | Products Carried in Line | Emergency Phone | Contact Phone |
|-------------|--------------------------------|-----------------------------------|--------------------------|-----------|--------------------------|-----------------|---------------|
| PL281 | Marathon Ashland Pipe Line LLC | Hammond - INMA State Line | 1 | 6" | Refined | 800-537-6644 | 419-421-3587 |
| PL287 | Marathon Ashland Pipe Line LLC | Phillips Jet - Badger Jet #2-12in | 1 | 12" | Refined | 800-537-6644 | 419-421-3587 |
| PL288 | Marathon Ashland Pipe Line LLC | Badger Jet - Mobil Jet #2-12in | 2 | 12" | Refined | 800-537-6644 | 419-421-3587 |
| PL289 | Marathon Ashland Pipe Line LLC | Mobil Jet - Hammond #2-12in | 2 | 12" | Refined | 800-537-6644 | 419-421-3587 |
| PL293 | Marathon Ashland Pipe Line LLC | Phillips Jet - Badger Jet #1-12in | 1 | 12" | Refined | 800-537-6644 | 419-421-3587 |
| PL294 | Marathon Ashland Pipe Line LLC | Badger Jet - Mobil Jet #1-12in | 2 | 12" | Refined | 800-537-6644 | 419-421-3587 |
| PL295 | Marathon Ashland Pipe Line LLC | Mobil Jet - Hammond #1-12in | 2 | 12" | Refined | 800-537-6644 | 419-421-3587 |
| PL296 | Marathon Ashland Pipe Line LLC | Hammond - Lockport | 1 | 6" | Refined | 800-537-6644 | 419-421-3587 |

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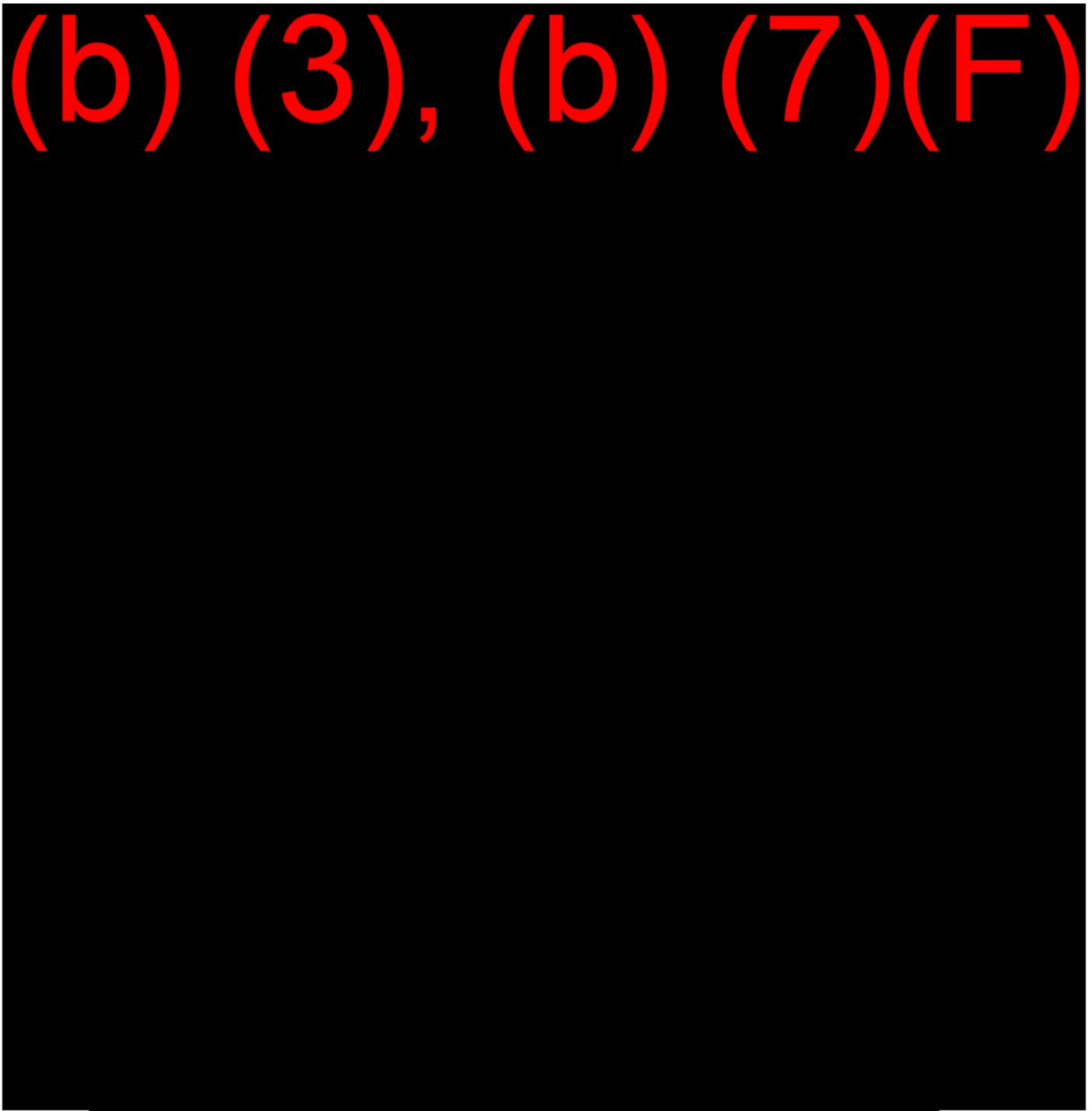
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(b) (3), (b) (7)(F)



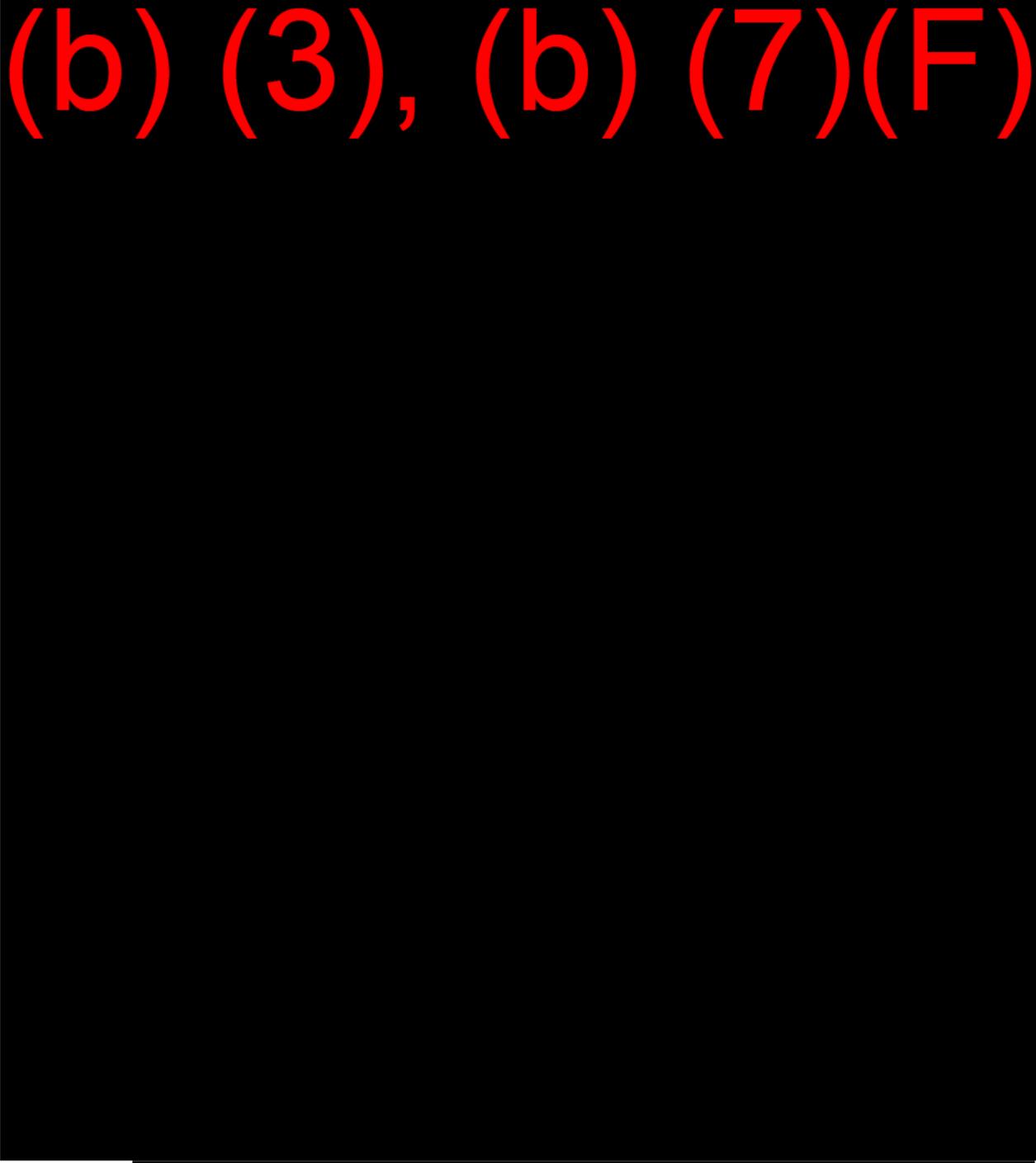
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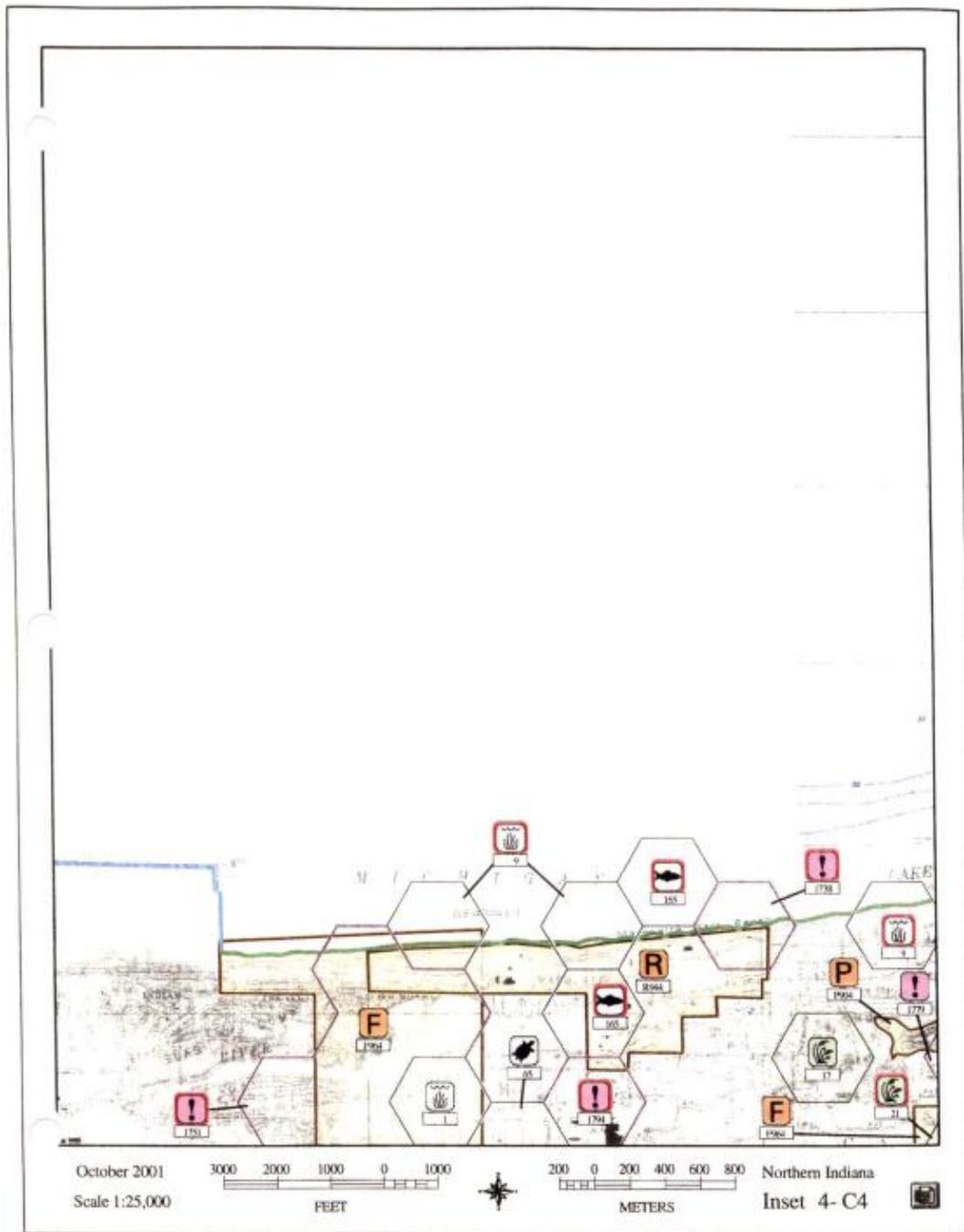


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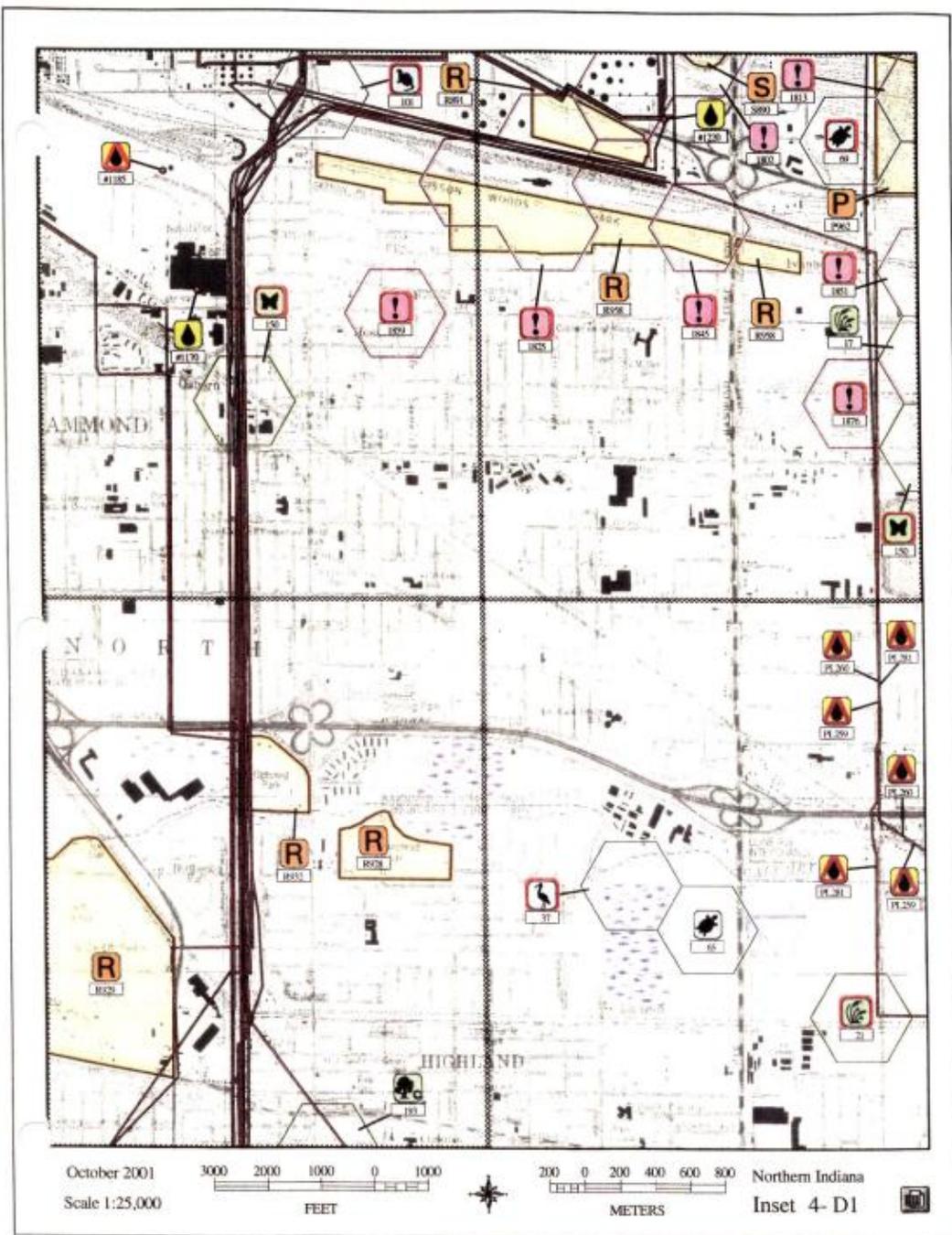
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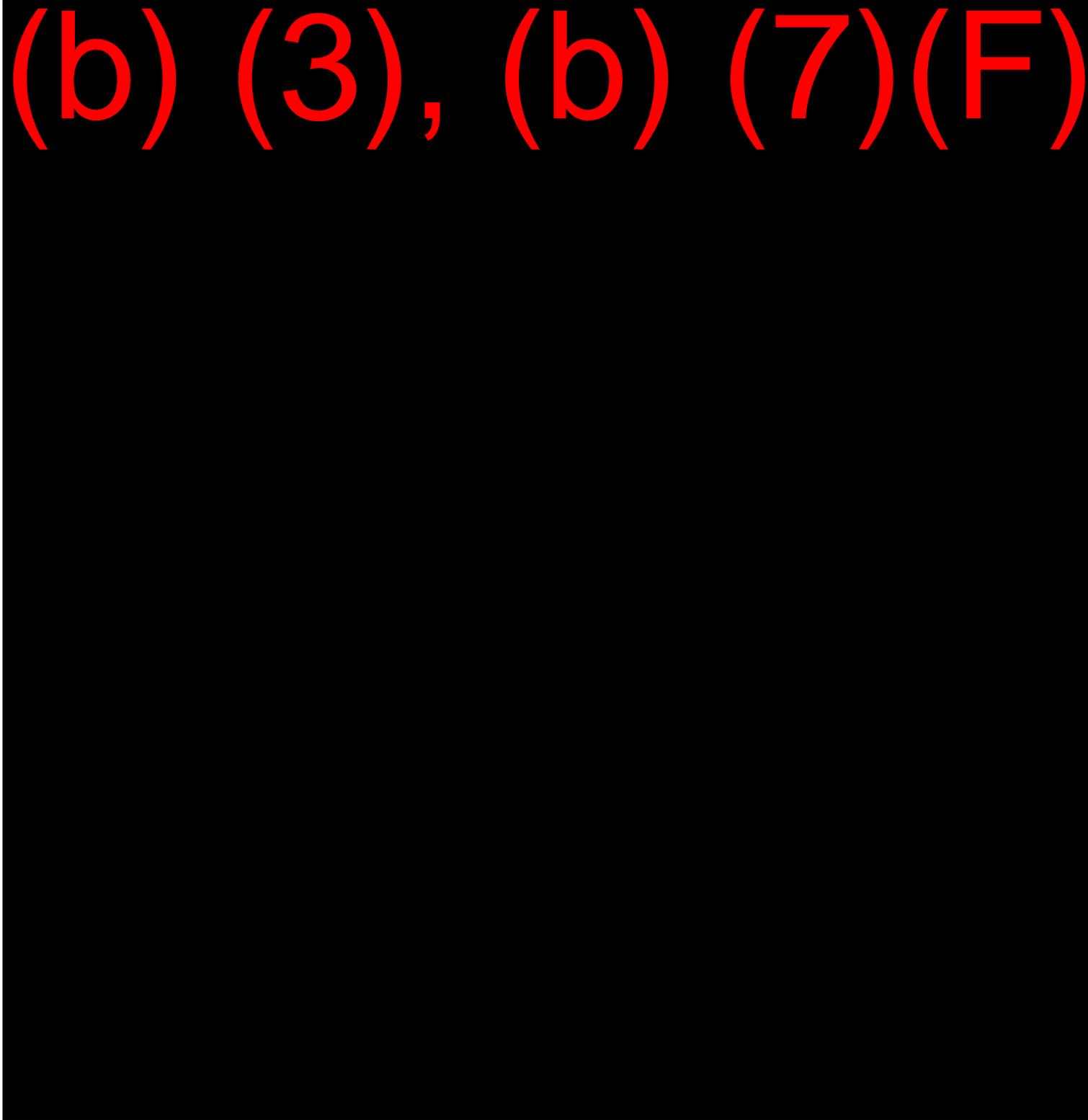


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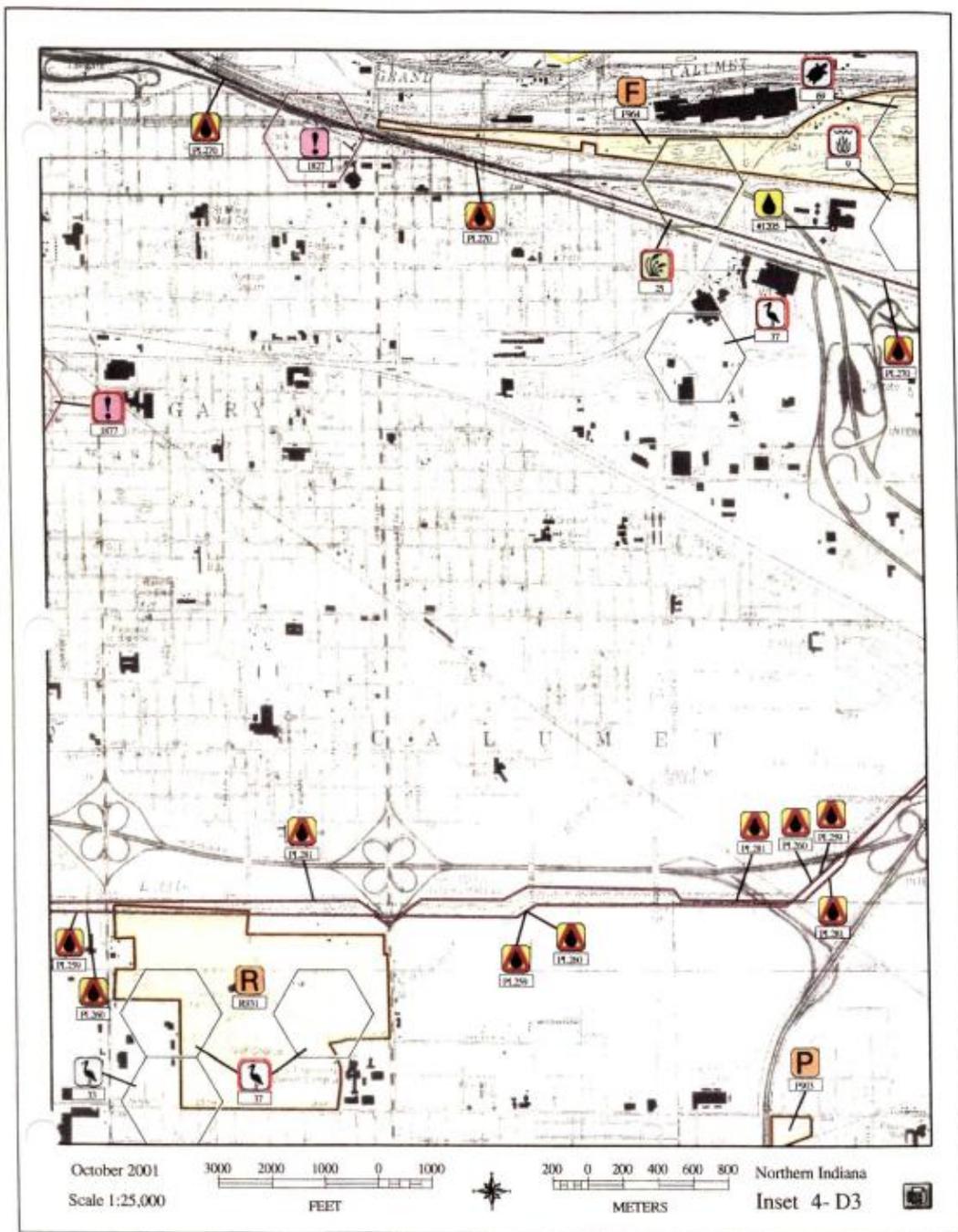


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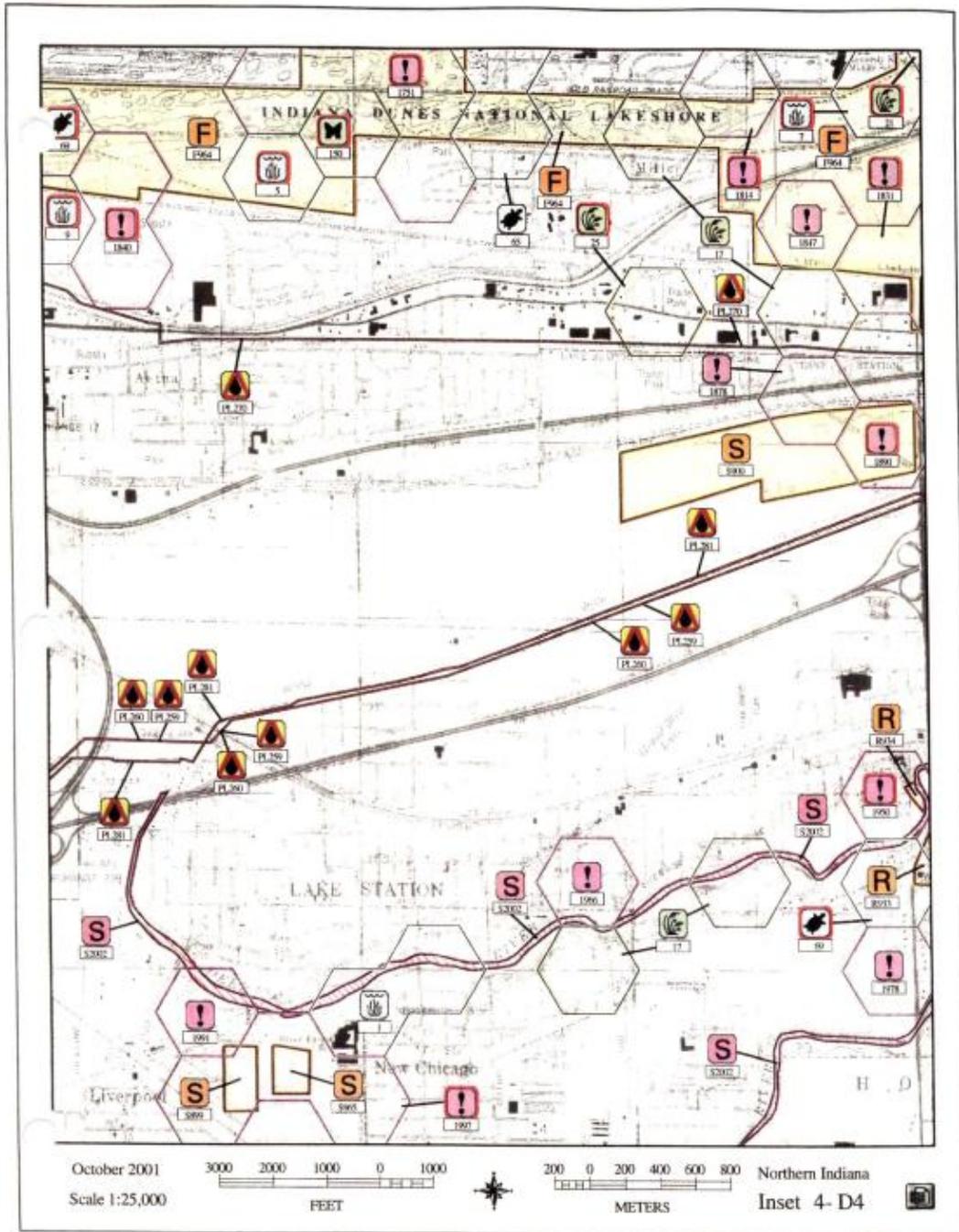
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Northern Indiana Atlas - Tile 4

Sensitive Species*

| Contact Name | Emergency Phone | Contact Phone |
|--|-----------------|---------------|
| U.S. Fish and Wildlife Service, Restoration Field Office | 800-800-5923 | 812-334-9261 |
| Indiana DNR Division of Fish and Wildlife | None | 317-232-6680 |

Managed Areas

| Item Number | Category | Managing Agency | Waterbody | Emergency Phone | Contact Phone | Comments |
|-------------|-----------------------|---|----------------------|-----------------|-----------------------|---|
| 8904 | National Park | National Park Service | Lake Michigan | 219-755-3300 | 219-926-7561 ext. 335 | 10605 acres, lat: 41.6164, long: -87.0758 |
| 8903 | Nature Preserve | Shirley Heinz Foundation | Unnamed Pond | 219-755-3300 | 219-879-4725 | 10 acres, lat: 41.5542, long: -87.3097 |
| 8904 | Nature Preserve | The Nature Conservancy | Lake Michigan | 219-755-3300 | 317-923-7547 | 7.5 acres, lat: 41.6156, long: -87.2386 |
| 8902 | Nature Preserve | The Nature Conservancy | Grand Calumet River | 219-755-3300 | 317-923-7547 | 11.5 acres, lat: 41.6061, long: -87.4194 |
| 8891 | Nature Preserve | Lake County Parks and Recreation | Grand Calumet River | 219-755-3300 | 219-755-3685 | 38.89 acres, lat: 41.6050, long: -87.4428 |
| 8928 | City Park | City of Highland | Little Calumet | 219-755-3300 | 219-838-9833 | |
| 8929 | City Park | City of Highland | Little Calumet | 219-755-3300 | 219-838-9833 | |
| 8931 | City Park | City of Gary Park Board | Little Calumet River | 219-886-3621 | 219-886-7102 | |
| 8932 | City Park | City of Hammond, Parks Department | Little Calumet | 219-755-3300 | 219-853-6378 | |
| 8933 | City Park | City of Lake Station Parks Department | Deep River | 219-755-3300 | 219-962-7508 | |
| 8934 | City Park | City of Lake Station Parks Department | Deep River | 219-755-3300 | 219-962-7508 | |
| 8943 | County Park | Lake County Parks and Recreation Department | Little Calumet River | 219-755-3300 | 219-755-3685 | 80 acres, lat: 41.5619, long: -87.3983 |
| 8944 | City Park | Gary Indiana Park Board | Lake Michigan | 219-755-3300 | 219-938-7362 | lat: 41.6189, long: -87.2636 |
| 8953 | Nature Preserve | Lake County Parks and Recreation | Grand Calumet River | 219-755-3300 | 219-844-3188 | 120 acres, lat: 41.6006, long: -87.4639 |
| 8990 | State Nature Preserve | Indiana DNR, Division of Nature Preserves | Grand Calumet River | 219-755-3300 | 317-232-4052 | 7 acres, lat: 41.6681, long: -87.4353 |
| 8999 | Nature Preserve | Indiana DNR, Division of Nature Preserves | Deep Run | 219-755-3300 | 317-232-4052 | 18.42 acres, lat: 41.5569, long: -87.2667 |

* 2001 Indiana Natural Heritage Data provided by the Indiana Department of Natural Resources, Division of Fish and Wildlife.

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Inland Sensitivity Atlas - Northern Indiana

Northern Indiana Atlas - Tile 4 (Continued)

Managed Areas (Continued)

| Icon Number | Name | Category | Managing Agency | Waterbody | Emergency Phone | Contact Phone | Comments |
|-------------|-------------------------------|-----------------------|---|---------------------------|-----------------|---------------|---|
| S900 | Calumet Prairie | State Nature Preserve | Indiana DNR, Division of Nature Preserves | Burns Ditch | 219-755-3300 | 317-232-4052 | 118.70 acres, lat: 41.5903, long: 87.2389. In an emergency also notify National Parks Service at 219-926-7561, ext. 333 |
| S961 | Clark and Pim Nature Preserve | State Nature Preserve | Indiana DNR, Division of Nature Preserves | Grand Calumet River | 219-755-3300 | 317-232-4052 | 294 acres, lat: 41.6303, long: 87.3906 |
| S965 | Gifford Sand Prairie | State Nature Preserve | Indiana DNR, Division of Nature Preserves | Unnamed Creek, Deep River | 219-755-3300 | 317-232-4052 | NOTE: Exact location not known, contact DNR. |

Special Designated Areas

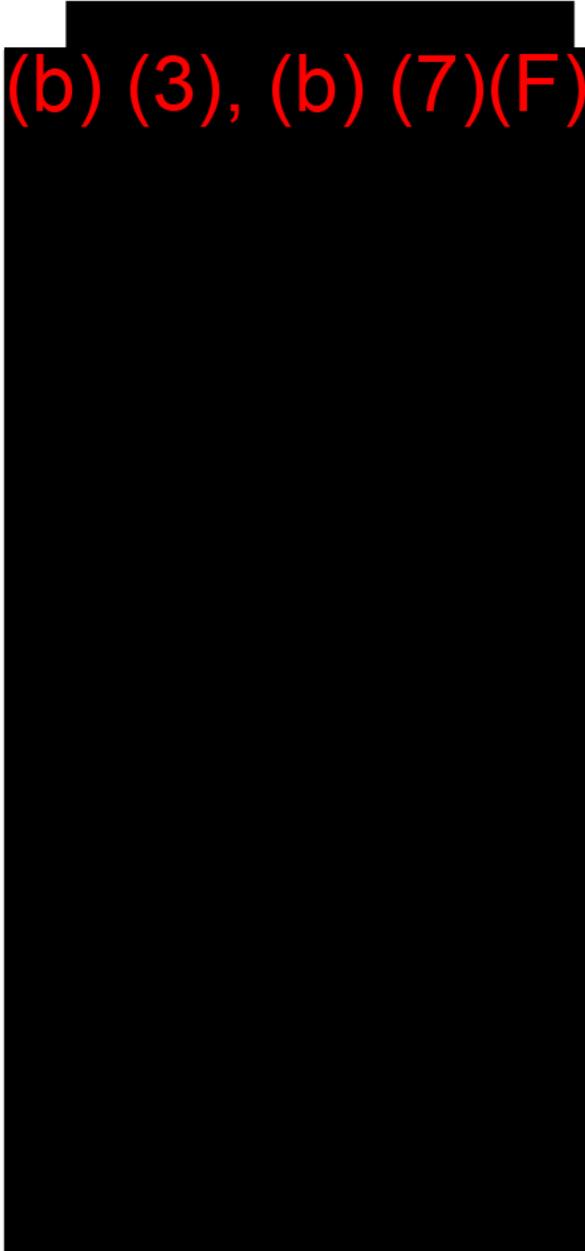
| Icon Number | Designated Area Name | Designation Program or Category | Designating Agency | Waterbody | Emergency Phone | Contact Phone | Comments |
|-------------|------------------------------------|---------------------------------|---|---|----------------------------|---------------|---------------------------------------|
| S2002 | Deep River State Outstanding River | State Outstanding River | Indiana Department of Natural Resources | Deep River, Little Calumet River, Lake Michigan | 219-465-1515; 219-755-3300 | 877-928-3755 | State designated canoe boating route. |

Marinas

| Icon Number | Name | Street Address | Waterbody | River Mile | Slips | Fuel Available | Emergency Phone | Contact Phone |
|-------------|--------------------------|---------------------------------|----------------------|------------|-------|----------------|-----------------|---------------|
| M3011 | Robert A. Patrick Marina | 3301 Aldis Avenue, East Chicago | Lake Michigan | N/A | 254 | Yes | 219-755-3300 | 219-391-4462 |
| M3012 | Indiana Harbor Boat Club | 3406 Aldis Avenue, East Chicago | Lake Michigan | N/A | 1 | No | 219-755-3300 | 219-398-1224 |
| M3014 | Shoreboat Marina | 400 Chicago Ave, East Chicago | Indiana Harbor Canal | N/A | 1 | No | 219-755-3300 | 219-378-3000 |

(b) (3), (b) (7)(F)

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Oil Storage Facilities

| Isen Number | Name | Operator | Street Address | Waterbody | River Mile | Facility Response Plan | Marine Transfer Facility | Products Handled | Emergency Phone | Contact Phone |
|-------------|---------------------------------------|--------------|-----------------------------------|---------------------|------------|------------------------|--------------------------|---|-----------------|---------------|
| #1170 | Sigan Containers Corp., Hammond Plant | Ed Scarfer | 2301 165th Street, Hammond | Grand Calumet River | N/A | No | | Gasoline, kerosene, fuel oil, motor oil | 219-755-3300 | 219-845-1500 |
| #1180 | Combustion Engineering | J. R. Bixman | 435 W. 151st Street, East Chicago | Grand Calumet River | N/A | No | | N/A | 219-755-3300 | |

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Northern Indiana Atlas - Tile 4 (Continued)

Oil Storage Facilities (Continued)

| Icon Number | Name | Operator | Street Address | Waterbody | River Mile | Facility Response Plan | Marine Transfer Facility | Products Handled | Emergency Phone | Contact Phone |
|-------------|--|-----------------------------------|---|---|------------|------------------------|--------------------------|--|-----------------|-------------------------------|
| #1182 | Eglin/Joliet/Eastern (RJE) Railway Company | Transfer, Inc. | One North Buchanan, Gary | Lake Michigan/Grand Calumet River | N/A | No | No | Diesel fuel, gasoline, lube oil, jet fuel. | 219-883-4214 | 815-740-6900 |
| #1184 | Gary Chicago Airport | Lavell Caterwood | 6001 West Industrial Highway, Gary | Grand Calumet River | N/A | No | No | Jet fuel | 219-949-9722 | 219-949-9722 |
| #1185 | L. H. B. Railroad | L.H.B. Railroad Company | 2721 161st Street, Hammond | Grand Calumet River | N/A | Yes | No | Fuel oil | 219-989-4892 | 219-989-4905 |
| #1186 | Inland Steel/Indiana Harbor Works | Inland Steel Company | 3210 Welling Street, East Chicago | Lake Michigan/Indiana Harbor Ship Canal | N/A | Yes | Yes | No. 6 fuel oil, diesel, hydraulic & lube oils. | 219-399-3226 | 219-399-4194 |
| #1190 | LTV Steel Company | LTV Steel Company | 3001 Dickey Road, Chicago | Lake Michigan | N/A | Yes | Yes | No. 6 fuel oil, diesel, waste, lube, hydraulic oil | 219-391-2434 | 219-391-2571 |
| #1194 | Mobil Oil Corporation | Mobil Oil Corporation | 3821 Indianapolis Boulevard, East Chicago | Lake George Canal | N/A | Yes | Yes | Gasoline, kerosene, fuel oil | 219-755-3300 | 219-397-1950 |
| #1200 | Phillips Pipe Line Company | Phillips Pipe Line Company | 400 East Columbus Drive, East Chicago | Indiana Harbor Canal | N/A | Yes | No | No. 2 high & low sulfur distillate, gasoline | 219-397-6666 | 219-397-6666 |
| #1202 | Pollution Control Industries of America | Tin Lagrimas | 4343 Kennedy Avenue, East Chicago | Indiana Harbor Canal | N/A | No | No | N/A | 219-755-3300 | 219-397-5951 |
| #1205 | Republic Engineered Steels | Dave Bantos | 2800 East Dunes Highway, U.S. 12, Gary | Storm Sewers | N/A | No | No | Diesel, hydraulic & lube oils | 219-755-3300 | 219-386-8162; 219-886-8100 |
| #1206 | Safety-Kleen Oil Recovery Company | Safety-Kleen Oil Recovery Company | 601 Riley Road, East Chicago | Indiana Harbor Ship Canal | N/A | Yes | Yes | Asphaltic bottoms, fuel oil, lube oil. | 800-468-1760 | 219-397-1131 |
| #1207 | Equilon Enterprises LLC | Equilon Enterprises LLC | 2400 Michigan Street, Hammond | Calumet River | N/A | Yes | Yes | Gasoline, diesel, jet fuel, ethanol. | 219-989-8695 | 219-989-8605 |
| #1208 | Solar Environmental, Inc. | Janet Saat | 6988 Chicago Avenue, Gary | Grand Calumet | N/A | No | No | Used crankcase oil. | 815-725-1854 | 219-944-1230 |
| #1211 | Travel Centers of America | Travel Centers of America | 2510 Burr Street, Gary | Calumet River | N/A | No | No | Diesel, gasoline, automobile oil. | 219-793-8921 | 219-845-3721 |
| #1212 | U.S. Reduction Company | Richard Newfield | 4610 Kennedy Avenue, East Chicago | Lake Michigan | N/A | No | No | N/A | 219-755-3300 | 219-392-8002 |

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Inland Sensitivity Atlas - Northern Indiana

Northern Indiana Atlas - Tile 4 (Continued)

Oil Storage Facilities (Continued)

| Icon Number | Company Name | Operator | Street Address | Waterbody | River Mile | Facility Response Plan | Marine Transfer Facility | Products Handled | Emergency Phone | Contact Phone |
|-------------|--|---|--|----------------------|------------|------------------------|--------------------------|--|-----------------|---------------|
| #1213 | U.S. Steel Gary Works | USX Corporation | 1 North Broadway, Gary | Lake Michigan | N/A | Yes | Yes | Lubricating oil, fuel oil. | 219-888-4511 | 219-888-3029 |
| #1214 | Praxair | Praxair, Inc. | 4400 Kennedy Avenue, East Chicago | Indiana Harbor Canal | N/A | No | No | Diesel fuel, motor oil, gasoline. | 219-598-3700 | 219-598-3700 |
| #1217 | Wills Oil Company, Inc. | William Garrison | 3830 W. 4th Avenue, Gary | Grand Calumet River | N/A | No | No | Contact indicates NO above ground storage tanks. | 219-949-3545 | 219-949-6611 |
| #1220 | Wolverine Pipeline Company | Dave Davis | 3737 Michigan Avenue, Hammond | Grand Calumet River | N/A | No | No | Refined Oil Products | 219-755-3300 | 219-844-0355 |
| #1222 | South Tank Field, Whiting Refinery, Amoco Petrol | Amoco Petroleum Products, Refining Business Group | SR 912 at SR 20 (Indianapolis Blvd), Whiting | Grand Calumet River | N/A | Yes | No | LP distillate, shop wax, diesel fuel, gas oil. | 219-473-7760 | 219-473-3356 |
| #4170 | CTGO Petroleum Corporation | CTGO Petroleum Corporation | 2500 East Chicago Avenue, East Chicago | Lake Michigan | N/A | Yes | No | Gasoline, turbine fuel, kerosene, butane. | 219-738-7494 | 219-398-0734 |

Pipelines

| Icon Number | Company Name | Route Name | Number of Pipes in Route | Diameter | Products Carried in Line | Emergency Phone | Contact Phone |
|-------------|------------------------------|--|--------------------------|----------|--------------------------|-------------------------------|-------------------------------|
| PL226 | West Shore Pipe Line Company | Hammond Station to Phillips | 1 | 16" | Refined | 888-625-7310 | 630-257-3742 |
| PL227 | West Shore Pipe Line Company | Hammond Station to Cigo | 1 | 16" | Refined | 800-806-2449 | 630-257-3742 |
| PL228 | West Shore Pipe Line Company | Hammond Station to Shell | 1 | 16" | Refined | 888-625-7310 | 630-257-3742 |
| PL237 | Buckeye Pipe Line Company | 010 | 1 | 10" | Refined | 800-331-4115 | 800-523-9420 |
| PL238 | Explorer Pipeline Company | Wood River to Hammond Station | 1 | 24" | Refined | 888-576-0036; 918-493-5100 | 918-493-5143; 219-989-8250 |
| PL239 | Explorer Pipeline Company | Hammond Station - Wolverine Pipeline | 1 | 16" | Refined | 888-576-0036; 918-493-5100 | 918-493-5143; 219-989-8250 |
| PL240 | Explorer Pipeline Company | Hammond Station - Cities Service | 3 | 14" | Refined | 888-576-0036; 918-493-5100 | 918-493-5143; 219-989-8250 |
| PL241 | Explorer Pipeline Company | Hammond Station - Cities Service Spine | 3 | 16" | Refined | 888-576-0036; 918-493-5100 | 918-493-5143; 219-989-8250 |
| PL242 | Explorer Pipeline Company | Hammond Station - East Chicago Meter | 3 | 14" | Refined | 888-576-0036; 918-493-5100 | 918-493-5143; 219-989-8250 |

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Inland Sensitivity Atlas - Northern Indiana

Northern Indiana Atlas - Tile 4 (Continued)

Pipelines (Continued)

| Iron Number | Company Name | Route Name | Number of Pipet in Route | Diameters | Products Carried in Line | Emergency Phone | Contact Phone |
|-------------|-------------------------------|--|--------------------------|--------------|--------------------------|-------------------------------|-------------------------------|
| PL243 | Explorer Pipeline Company | Hammond Station - Shell - West Shore South | 1 | 16" | Refined | 888-876-0036; 918-493-5100 | 918-493-5143; 219-989-8250 |
| PL244 | Explorer Pipeline Company | Hammond Station - Shell - West Shore North | 1 | 16" | Refined | 888-876-0036; 918-493-5100 | 918-493-5143; 219-989-8250 |
| PL245 | Explorer Pipeline Company | Hammond Station - Phillips - Phillips | 1 | 16" | Refined | 888-876-0036; 918-493-5100 | 918-493-5143; 219-989-8250 |
| PL251 | West Shore Pipe Line Company | East Chicago to Canal Junction | 1 | 12" | Refined | 888-635-7310 | 773-623-7310 |
| PL253 | Wolverine Pipe Line Company | Lockport to Kennedy Ave 18" | 1 | 18" | Refined | 888-337-5004; 219-844-9510 | 616-323-2491 ext. 24 |
| PL254 | Wolverine Pipe Line Company | Joliet to Kennedy Ave 18" | 1 | 18" | Refined | 888-337-5004; 219-844-9510 | 616-323-2491 ext. 24 |
| PL255 | Wolverine Pipe Line Company | Cigo Feeder 16" | 1 | 16" | Refined | 888-337-5004; 219-844-9510 | 616-323-2491 ext. 24 |
| PL256 | Wolverine Pipe Line Company | Clark Marathon Feeder Line | 2 | 16" | Refined | 888-337-5004; 219-844-9510 | 616-323-2491 ext. 24 |
| PL257 | Wolverine Pipe Line Company | Kennedy to White Oak 16" | 2 | 16" | Refined | 888-337-5004; 219-844-9510 | 616-323-2491 ext. 24 |
| PL258 | Wolverine Pipe Line Company | Shell Feeder 16" | 1 | 16" | Refined | 888-337-5004; 219-844-9510 | 616-323-2491 ext. 24 |
| PL259 | Wolverine Pipe Line Company | Kennedy to Niles Main Line | 1 | 16" | Refined | 888-337-5004; 219-844-9510 | 616-323-2491 ext. 24 |
| PL260 | Wolverine Pipe Line Company | Kennedy to Niles Loop Line | 1 | 16" | Refined | 888-337-5004; 219-844-9510 | 616-323-2491 ext. 24 |
| PL262 | TransMontaigne Pipeline Inc. | Lake George Line | 2 | 8" | Refined | 800-732-8140 | 800-732-8140 ext. 5 |
| PL263 | TransMontaigne Pipeline Inc. | Lake George Line | 2 | 8" | Refined | 800-732-8140 | 800-732-8140 ext. 5 |
| PL267 | BP Pipeline North America | Whiting-Dubuque | 1 | 8", 10", 12" | Refined | 800-548-6482 | 216-586-2103 |
| PL268 | BP Pipeline North America | Chicago Crude 16" | 1 | 16" | Crude | 800-548-6482 | 216-586-2103 |
| PL269 | BP Pipeline North America | Chicago Crude 18" | 1 | 18" | Crude | 800-548-6482 | 216-586-2103 |
| PL270 | BP Pipeline North America | Whiting - River Rouge | 1 | 12" | Crude | 800-548-6482 | 216-586-2103 |
| PL271 | BP Pipeline North America | Whiting - Indianapolis | 1 | 8" | Refined | 800-548-6482 | 216-586-2103 |
| PL275 | Equilon Pipeline Company, LLC | East Chicago Leg | 1 | 14" | Refined | 800-634-4325 | 708-665-6363 |
| PL277 | BP Pipeline North America | Chicago 22" CCPS Crude Line | 1 | 22" | Crude | 800-548-6482 | 216-586-2103 |

Inland Sensitivity Atlas - Northern Indiana

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Northern Indiana Atlas - Tile 4 (Continued)

Pipelines (Continued)

| Icon Number | Company Name | Route Name | Number of Pipes in Route | Diameters | Products Carried in Line | Emergency Phone | Contact Phone |
|-------------|--------------------------------|--|--------------------------|-----------|--------------------------|-------------------------------|---------------|
| PL278 | Phillips Pipe Line Company | Kankakee, IL to East Chicago, IN #2, Gold Line | 2 | 8" | Refined | 800-766-8238; 918-461-4550 | 918-461-5532 |
| PL281 | Marathon Ashland Pipe Line LLC | Hammond - IN/MI State Line | 1 | 6" | Refined | 800-537-6644 | 419-421-3387 |
| PL284 | Marathon Ashland Pipe Line LLC | Griffith - Shell Jet, IN 16in | 1 | 16" | Refined | 800-537-6644 | 419-421-3387 |
| PL285 | Marathon Ashland Pipe Line LLC | Shell Jet, IN - Cingo Jet #9-12in | 1 | 12" | Refined | 800-537-6644 | 419-421-3387 |
| PL286 | Marathon Ashland Pipe Line LLC | Cingo Jet - Phillips Jet #2-12in | 1 | 12" | Refined | 800-537-6644 | 419-421-3387 |
| PL287 | Marathon Ashland Pipe Line LLC | Phillips Jet - Badger Jet #2-12in | 1 | 12" | Refined | 800-537-6644 | 419-421-3387 |
| PL290 | Marathon Ashland Pipe Line LLC | Griffith - Shell Jet, IN 12in | 1 | 12" | Refined | 800-537-6644 | 419-421-3387 |
| PL291 | Marathon Ashland Pipe Line LLC | Shell Jet, IN - Cingo Jet #1-12in | 1 | 12" | Refined | 800-537-6644 | 419-421-3387 |
| PL292 | Marathon Ashland Pipe Line LLC | Cingo Jet - Phillips Jet #1-12in | 1 | 12" | Refined | 800-537-6644 | 419-421-3387 |
| PL293 | Marathon Ashland Pipe Line LLC | Phillips Jet - Badger Jet #1-12in | 1 | 12" | Refined | 800-537-6644 | 419-421-3387 |
| PL296 | Marathon Ashland Pipe Line LLC | Hammond - Lockport | 1 | 6" | Refined | 800-537-6644 | 419-421-3387 |

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Appendix B. Sensitive Species and Natural Communities

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 5 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 7 | Aquatic/Riparian Zone Vascular Plants | - | X | X | - |
| 9 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 11 | Aquatic/Riparian Zone Vascular Plants | X | - | X | - |
| 13 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 15 | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| 17 | Upland Zone Vascular Plants | - | - | - | - |
| 21 | Upland Zone Vascular Plants | - | X | - | - |
| 23 | Upland Zone Vascular Plants | - | X | X | - |
| 25 | Upland Zone Vascular Plants | X | - | - | - |
| 29 | Upland Zone Vascular Plants | X | X | - | - |
| 33 | Aquatic/Riparian Zone Birds | - | - | - | - |
| 37 | Aquatic/Riparian Zone Birds | - | X | - | - |
| 39 | Aquatic/Riparian Zone Birds | - | X | X | - |
| 41 | Aquatic/Riparian Zone Birds | X | - | - | - |
| 45 | Aquatic/Riparian Zone Birds | X | X | - | - |
| 49 | Terrestrial Zone Birds | - | - | - | - |
| 53 | Terrestrial Zone Birds | - | X | - | - |
| 65 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| 69 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| 71 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | X | - |
| 77 | Aquatic/Riparian Zone Amphibians and Reptiles | X | X | - | - |
| 81 | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| 85 | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| 89 | Terrestrial Zone Amphibians and Reptiles | X | - | - | - |
| 97 | Aquatic/Riparian Zone Mammals | - | - | - | - |
| 101 | Aquatic/Riparian Zone Mammals | - | X | - | - |
| 102 | Aquatic/Riparian Zone Mammals | - | X | - | X |
| 113 | Terrestrial Zone Mammals | - | - | - | - |
| 117 | Terrestrial Zone Mammals | - | X | - | - |
| 129 | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| 133 | Aquatic/Riparian Zone Invertebrates | - | X | - | - |
| 134 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| 137 | Aquatic/Riparian Zone Invertebrates | X | - | - | - |
| 141 | Aquatic/Riparian Zone Invertebrates | X | X | - | - |
| 142 | Aquatic/Riparian Zone Invertebrates | X | X | - | X |
| 145 | Terrestrial Zone Invertebrates | - | - | - | - |
| 150 | Terrestrial Zone Invertebrates | - | X | - | X |
| 153 | Terrestrial Zone Invertebrates | X | - | - | - |
| 161 | Fish | - | - | - | - |
| 165 | Fish | - | X | - | - |
| 169 | Fish | X | - | - | - |
| 173 | Fish | X | X | - | - |
| 177 | Aquatic Natural Communities | - | - | - | - |
| 193 | Terrestrial Zone Natural Communities | - | - | - | - |
| 1038 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| 1045 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1047 | Aquatic/Riparian Zone Amphibians and Reptiles | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1050 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1051 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1052 | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Terrestrial Zone Birds | X | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1053 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1061 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1064 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1068 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1069 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1075 | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| 1078 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1081 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1082 | Terrestrial Zone Invertebrates | X | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1084 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| 1094 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1098 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1101 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1102 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1103 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | X | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1105 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1109 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1111 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1113 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | X | - | X |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1117 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1118 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1123 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1126 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1127 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1128 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1130 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Fish | - | - | - | - |
| 1131 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1133 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1136 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1137 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1139 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1141 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1147 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1148 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1149 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1150 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1153 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1154 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1162 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1167 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1174 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1178 | Aquatic/Riparian Zone Vascular Plants | - | X | X | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1179 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Fish | - | - | - | - |
| 1185 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1188 | Aquatic Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1189 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1194 | Aquatic/Riparian Zone Mammals | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1199 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Fish | - | - | - | - |
| 1201 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | X | X | - | X |
| 1211 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1212 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1214 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| 1215 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1216 | Aquatic Natural Communities | - | - | - | - |
| | Fish | - | - | - | - |
| 1220 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Fish | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1224 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1225 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1228 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | - | - | - |
| 1234 | Aquatic Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1238 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1239 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| 1248 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Fish | - | X | - | - |
| 1259 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1261 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1271 | Aquatic/Riparian Zone Invertebrates | - | X | - | - |
| | Fish | - | X | - | - |
| 1273 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1275 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1278 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Mammals | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1280 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1281 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1287 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| 1289 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1291 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Fish | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1302 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1303 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Fish | - | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icoa | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|-----------------------------|---|------------------|------------------|--------------------|--------------------|
| 1306 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| 1308 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1310 | Aquatic/Riparian Zone Mammals | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| 1312 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 1314 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1317 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1322 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1329 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | - | - | - |
| 1332 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1334 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1338 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1339 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1360 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1361 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1362 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | X |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| | Terrestrial Zone Invertebrates | X | X | - | - |
| | Terrestrial Zone Mammals | - | - | - | - |
| Upland Zone Vascular Plants | X | X | - | - | |
| 1363 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Mammals | - | - | - | - |
| 1365 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| 1371 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1373 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 1375 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1385 | Aquatic/Riparian Zone Vascular Plants | X | - | X | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1387 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1388 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1391 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1393 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1394 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1401 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1404 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| 1405 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1409 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1423 | Aquatic Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1427 | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | - |
| 1429 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1434 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | X | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1436 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1437 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1441 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1446 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| 1454 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| 1457 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| 1460 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1462 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1465 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Terrestrial Zone Birds | - | X | - | - |
| | Terrestrial Zone Mammals | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1470 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| 1479 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1488 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1494 | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1496 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1498 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Mammals | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1499 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1507 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1508 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | X | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1512 | Terrestrial Zone Birds | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1518 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1519 | Terrestrial Zone Invertebrates | - | X | - | X |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1524 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Terrestrial Zone Birds | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1525 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1527 | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1533 | Aquatic Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1535 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | X |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1537 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1543 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1545 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1546 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | X | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1550 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1557 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1558 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1560 | Aquatic/Riparian Zone Birds | X | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1561 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1562 | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1565 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1568 | Aquatic Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1575 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| | Terrestrial Zone Invertebrates | X | X | - | X |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1578 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1581 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1583 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| 1588 | Aquatic/Riparian Zone Birds | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1589 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1597 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1598 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1601 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1608 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 1610 | Terrestrial Zone Birds | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1614 | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1622 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1625 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1627 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1630 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1633 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1637 | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1646 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1647 | Terrestrial Zone Birds | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1651 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1652 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1653 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1655 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1657 | Terrestrial Zone Birds | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1660 | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1666 | Aquatic Natural Communities | - | - | - | - |
| | Fish | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1667 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1683 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1684 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1689 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1691 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1694 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Fish | - | - | - | - |
| 1696 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1699 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |

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| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1702 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | X | - | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1703 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1704 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1706 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1707 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1708 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1711 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1712 | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1716 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | X | - |
| | Terrestrial Zone Invertebrates | X | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1717 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1718 | Aquatic/Riparian Zone Vascular Plants | X | - | X | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1719 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1720 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1723 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1738 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1740 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1741 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |

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| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1742 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Fish | - | X | - | - |
| 1747 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| 1749 | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| 1751 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | X | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1755 | Upland Zone Vascular Plants | X | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Invertebrates | X | X | - | X |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1756 | Upland Zone Vascular Plants | X | X | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1761 | Terrestrial Zone Birds | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 1764 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| 1766 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | - | - | - |
| 1773 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| 1776 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| 1779 | Terrestrial Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1790 | Upland Zone Vascular Plants | - | - | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|--------------------------------------|---|------------------|------------------|--------------------|--------------------|
| 1791 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1792 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1794 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1798 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| 1799 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| 1802 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1805 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1806 | Terrestrial Zone Invertebrates | - | X | - | X |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1807 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| 1808 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1809 | Upland Zone Vascular Plants | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| 1811 | Terrestrial Zone Birds | - | X | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1813 | Upland Zone Vascular Plants | X | X | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| Terrestrial Zone Natural Communities | - | - | - | - | |
| 1814 | Upland Zone Vascular Plants | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1825 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Invertebrates | X | X | - | X |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1827 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1831 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1832 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Upland Zone Vascular Plants | X | X | - | - |
| 1833 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| 1840 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1845 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1847 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1850 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | - | - | - |
| 1851 | Terrestrial Zone Invertebrates | - | X | - | X |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1852 | Aquatic/Riparian Zone Invertebrates | X | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| 1853 | Aquatic/Riparian Zone Invertebrates | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1855 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1856 | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1859 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | - |
| 1864 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1866 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1876 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |

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| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1877 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1878 | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1879 | Aquatic Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1890 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1896 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Fish | - | - | - | - |
| 1898 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Fish | - | - | - | - |
| 1908 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1910 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1911 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Fish | - | - | - | - |
| 1921 | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 1927 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1933 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 1934 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Fish | - | - | - | - |
| 1935 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1945 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| 1949 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1950 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1954 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Fish | - | - | - | - |
| 1959 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 1965 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1966 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1978 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 1979 | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| 1980 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 1984 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |
| 1991 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1994 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 1995 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | - | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 1996 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 1997 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 2002 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| 2004 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| 2014 | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| 2015 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | - | - | - |
| 2019 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 2036 | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 2037 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2040 | Upland Zone Vascular Plants | - | - | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2054 | Upland Zone Vascular Plants | X | - | - | - |
| | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 2058 | Upland Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2062 | Upland Zone Vascular Plants | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Terrestrial Zone Birds | - | - | - | - |

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| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 2084 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Invertebrates | X | X | - | X |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 2085 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2087 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| 2096 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 2097 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 2108 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2109 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| 2110 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 2111 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2115 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 2120 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 2121 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 2123 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | X | - | X |
| | Upland Zone Vascular Plants | X | X | - | - |
| 2124 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| 2135 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 2140 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2156 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2161 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2172 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Birds | - | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 2178 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2196 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2197 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2215 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2217 | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 2238 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2250 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | - | - | - |
| 2251 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| 2254 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 2260 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2265 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 2276 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2282 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2286 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 2288 | Aquatic/Riparian Zone Invertebrates | - | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Invertebrates | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | X | - |
| 2295 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 2314 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Fish | - | - | - | - |
| 2317 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2338 | Aquatic Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 2353 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 2355 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2372 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2373 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2376 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |

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| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 2383 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 2385 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 2389 | Aquatic/Riparian Zone Vascular Plants | - | X | X | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2397 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 2399 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 2400 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2402 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 2407 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2411 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 2420 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 2423 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 2426 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2433 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2439 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Fish | - | - | - | - |
| 2441 | Aquatic Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2445 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | X | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2450 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| 2454 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2456 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Fish | - | - | - | - |
| 2457 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 2464 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Fish | - | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 2485 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| 2496 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 2504 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Fish | - | - | - | - |
| 2509 | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| 2513 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 2517 | Terrestrial Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 2518 | Upland Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2519 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Fish | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2531 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | X |
| 2544 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Fish | - | - | - | - |
| 2546 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2564 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 2566 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2573 | Terrestrial Zone Invertebrates | - | X | - | X |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2574 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2575 | Terrestrial Zone Invertebrates | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2581 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| 2586 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 2587 | Terrestrial Zone Mammals | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2593 | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Terrestrial Zone Birds | - | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 2595 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 2598 | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | X | - |
| 2603 | Aquatic/Riparian Zone Mammals | - | X | - | X |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2605 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| 2622 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| 2626 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2630 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| 2632 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Fish | - | - | - | - |
| 2637 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2643 | Terrestrial Zone Mammals | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2651 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2652 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2666 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2672 | Aquatic Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2678 | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2683 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | X | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| | Terrestrial Zone Invertebrates | X | - | - | - |
| | Terrestrial Zone Mammals | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 2698 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 2699 | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 2702 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2705 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 2706 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 2712 | Aquatic/Riparian Zone Invertebrates | X | - | - | - |
| | Fish | X | X | - | - |
| 2726 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 2727 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2728 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 2729 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| 2736 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 2737 | Terrestrial Zone Mammals | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 2739 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Fish | - | - | - | - |
| 2744 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Mammals | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 2749 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Fish | - | X | - | - |
| 2754 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| 2756 | Aquatic/Riparian Zone Vascular Plants | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 2761 | Terrestrial Zone Mammals | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2764 | Terrestrial Zone Invertebrates | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2773 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| 2789 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Fish | - | X | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 2791 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 2800 | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 2815 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Fish | - | - | - | - |
| 2824 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Fish | - | X | - | - |
| 2826 | Terrestrial Zone Birds | - | X | - | - |
| | Terrestrial Zone Mammals | - | X | - | - |
| 2832 | Aquatic Natural Communities | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2834 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Fish | - | X | - | - |
| 2846 | Aquatic/Riparian Zone Birds | - | - | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |
| 2861 | Aquatic/Riparian Zone Invertebrates | - | X | - | X |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Fish | - | X | - | - |
| 2864 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2871 | Aquatic/Riparian Zone Vascular Plants | X | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2889 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2890 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | X | X | - | - |
| | Terrestrial Zone Invertebrates | X | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 2953 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2965 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 2966 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2968 | Aquatic/Riparian Zone Amphibians and Reptiles | - | - | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| 2975 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| 2978 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | - | - | - |
| 2982 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | X | - | - |
| 2988 | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Mammals | - | X | - | - |
| | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| | Terrestrial Zone Mammals | - | - | - | - |
| 2998 | Aquatic Natural Communities | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |

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Sensitive Species and Natural Communities, continued

| Icon | Species Group Name | State Threatened | State Endangered | Federal Threatened | Federal Endangered |
|------|---|------------------|------------------|--------------------|--------------------|
| 3006 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| 3009 | Aquatic/Riparian Zone Vascular Plants | X | X | - | - |
| | Terrestrial Zone Birds | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 3041 | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| 3046 | Aquatic/Riparian Zone Vascular Plants | - | X | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 3055 | Terrestrial Zone Amphibians and Reptiles | - | - | - | - |
| | Upland Zone Vascular Plants | - | - | - | - |
| 3057 | Aquatic/Riparian Zone Amphibians and Reptiles | - | X | - | - |
| | Aquatic/Riparian Zone Birds | - | X | - | - |
| | Aquatic/Riparian Zone Invertebrates | - | - | - | - |
| | Aquatic/Riparian Zone Vascular Plants | - | X | X | - |
| | Terrestrial Zone Amphibians and Reptiles | - | X | - | - |
| | Terrestrial Zone Birds | - | X | - | - |
| | Terrestrial Zone Invertebrates | - | - | - | - |
| | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 3080 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 3081 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |
| 3083 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | X | - | - |
| 3104 | Terrestrial Zone Natural Communities | - | - | - | - |
| | Upland Zone Vascular Plants | X | - | - | - |

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APPENDIX H

STATE REQUIREMENTS

- H. 1 [State Regulatory Requirements](#)
- H. 2 [State Notifications](#)
- H. 3 [State Response Teams](#)
- H. 4 [State Impact Considerations](#)
- H. 5 [State Worst Case Discharge](#)
- H. 6 [Hazard Evaluation](#)
- H. 7 [Training and Drills](#)
- H. 8 [Other State Information](#)

H.1 STATE REGULATORY REQUIREMENTS

Not Applicable

H.2 STATE NOTIFICATIONS

Not Applicable

H.3 STATE RESPONSE TEAMS

Not Applicable

H.4 STATE IMPACT CONSIDERATIONS

Not Applicable

H.5 STATE WORST CASE DISCHARGE

Not Applicable

H.6 HAZARD EVALUATION

Not Applicable

H.7 TRAINING AND DRILLS

Not Applicable

H.8 OTHER STATE INFORMATION

Not Applicable



APPENDIX I

OTHER DOCUMENTS



GLOSSARY OF TERMS AND ACRONYMS

[Glossary of Terms](#)

[Acronyms](#)

GLOSSARY OF TERMS

This glossary contains definitions of terms that will be used frequently during the course of response operations.

Activate: The process of mobilizing personnel and/or equipment within the response organization to engage in response operations.

Activator: An individual in the response organization whose responsibilities include notifying other individuals or groups within the organization to mobilize personnel and/or equipment.

Adverse Weather: The weather conditions that will be considered when identifying response systems and equipment in a response plan for the applicable operating environment. Factors to consider include significant wave height, ice, temperature, weather - related visibility, and currents within the Captain of the Port (COTP) zone in which the systems or equipment are intended to function.

Agency Representative: Individual assigned to an incident from an agency who has been delegated full authority to make decisions on all matters affecting that agency's participation in response operations.

Area Committee: As defined by Sections 311(a)(18) and (j)(4) of CWA, as amended by OPA, means the entity appointed by the President consisting of members from Federal, State, and local agencies with responsibilities that include preparing an Area Contingency Plan for the area designated by the President. The Area Committee may include ex-officio (i.e., non-voting) members (e.g., industry and local interest groups).

Area Contingency Plan: As defined by Sections 311(a)(19) and (j)(4) of CWA, as amended by OPA, means the plan prepared by an Area Committee, that in conjunction with the NCP, shall address the removal of a discharge including a worst-case discharge and the mitigation or prevention of 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.

Average Most Probable Discharge : A discharge of the lesser of 50 barrels or 1% of the volume of the worst case discharge.

Barrel (bbl): Measure of space occupied by 42 U.S. gallons at 60 degrees Fahrenheit.

Bioremediation Agents: Means microbiological cultures, enzyme additives, or nutrient additives that are deliberately introduced into an oil discharge and that will significantly increase the rate of biodegradation to mitigate the effects of the discharge.

Boom: A piece of equipment or a strategy used to either contain free floating oil to a confined area or protect an uncontaminated area from intrusion by oil.

Booming Strategies: Strategic techniques which identify the location and quantity of boom required to protect certain areas. These techniques are generated by identifying a potential spill source and assuming certain conditions which would affect spill movement on water.

Bulk: Material that is stored or transported in a loose, unpackaged liquid, powder, or granular form capable of being conveyed by a pipe, bucket, chute, or belt system.

Chemical Agents: Means those 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 the mitigation of deleterious effects or the removal of the oil pollutant from the water. Chemical agents include biological additives, dispersants, sinking agents, miscellaneous oil spill control agents, and burning agents, but do not include solvents.

Cleanup: For the purposes of this document, cleanup refers to the removal and/or treatment of oil, hazardous substances, and/or the waste or contaminated materials generated by the incident. Cleanup includes restoration of the site and its natural resources.

Clean-up Contractor: Persons contracted to undertake a response action to clean up a spill.

Coastal Waters: For the purpose of classifying the size of discharges, means the waters of the coastal zone except for the Great Lakes and specified ports and harbors on inland rivers.

Coastal Zone: As defined for the purpose of the NCP, means all United States waters subject to the tide, United States waters of the Great Lakes, specified ports and harbors on inland rivers, waters of the contiguous zone, other waters of the high seas subject to the NCP, and the land surface or land substrata, ground waters, and ambient air proximal to those waters. The term coastal zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in federal regional contingency plans.

Coast Guard District Response Group (DRG): As provided for by CWA sections 311(a)(20) and (j)(3), means the entity established by the Secretary of the department in which the USCG is operating within each USCG district and shall consist of: the combined USCG personnel and equipment, including firefighting equipment, of each port within the district; additional prepositioned response equipment; and a district response advisory team.

Command: The act of controlling manpower and equipment resources by virtue of explicit or delegated authority.

Command Post: A site located at a safe distance from the spill site where response decisions are made, equipment and manpower deployed, and communications handled. The Incident Commander and the On-Scene Coordinators may direct the on-scene response from this location.

Communications Equipment: Equipment that will be utilized during response operations to maintain communication between the Company employees, contractors, Federal/State/Local agencies. (Radio/ telephone equipment and links)

Containment Boom: A flotation/freeboard device, made with a skirt/curtain, longitudinal strength member, and ballast unit/weight designed to entrap and contain the product for recovery.

Contingency Plan: A document used by (1) federal, state, and local agencies to guide their planning and response procedures regarding spills of oil, hazardous substances, or other emergencies; (2) a document used by industry as a response plan to spills of oil, hazardous substances, or other emergencies occurring upon their vessels or at their facilities.

Contract or Other Approved Means: For OPA 90, a written contract with a response contractor; certification by the facility owner or operator that personnel and equipment are owned, operated, or under the direct control of the facility, and available within the stipulated times; active membership in a local or regional oil spill removal organization; and/or the facility's own equipment.

Critical Areas to Monitor: Areas which if impacted by spilled oil may result in threats to public safety or health.

Cultural Resources: Current, historic, prehistoric and archaeological resources which include deposits, structures, ruins, sites, buildings, graves, artifacts, fossils, or other objects of antiquity which provide information pertaining to the historical or prehistorical culture of people in the state as well as to the natural history of the state.

Damage Assessment: The process of determining and measuring damages and injury to the human environment and natural resources, including cultural resources. A Damages include differences between the conditions and use of natural resources and the human environment that would have occurred without the incident, and the conditions and use that ensued following the incident. A Damage assessment includes planning for restoration and determining the costs of restoration.

Decontamination: The removal of hazardous substances from personnel and their equipment necessary to prevent adverse health effects.

Discharge: Any spilling, leaking, pumping, pouring, emitting, emptying, or dumping.

Dispersants: Means those chemical agents that emulsify, disperse, or solubilize oil into the water column or promote the surface spreading of oil slicks to facilitate dispersal of the oil into the water column.

Diversion Boom: A floatation/freeboard device, made with a skirt/curtain, longitudinal strength member, and ballast unit/weight designed to deflect or divert the product towards a pick up point, or away from certain areas.

Drinking Water Supply: As defined by Section 101(7) of CERCLA, means any raw or finished water source that is or may be used by a public water system (as defined in the Safe Drinking Water Act) or as drinking water by one or more individuals.

Economically Sensitive Areas: Those areas of explicit economic importance to the public that due to their proximity to potential spill sources may require special protection and include, but are not limited to: potable and industrial water intakes; locks and dams; and public and private marinas.

Emergency Management: The personnel identified to staff the organizational structure identified in a response plan to manage response plan implementation.

Emergency Service: Those activities provided by state and local government to prepare for and carry out any activity to prevent, minimize, respond to, or recover from an emergency.

Environmentally Sensitive Areas: Streams and water bodies, aquifer recharge zones, springs, wetlands, agricultural areas, bird rookeries, endangered or threatened species (flora and fauna) habitat, wildlife preserves or conservation areas, parks, beaches, dunes, or any other area protected or managed for its natural resource value.

Facility: Either an onshore facility or an offshore facility and includes, but is not limited to structures, equipment, and appurtenances thereto, used or capable of being used to transfer oil to or from a vessel or a public vessel. A facility includes federal, state, municipal, and private facilities.

Facility Operator: The person who owns, operates, or is responsible for the operation of the facility.

Federal Fund: The spill liability trust fund established under OPA.

Federal Regional Response Team: The federal response organization (consisting of representatives from selected federal and state agencies) which acts as a regional body responsible for planning and preparedness before an oil spill occurs and providing advice to the FOSC in the event of a major or substantial spill.

Federal Response Plan (FRP): Means the agreement signed by 25 federal departments and agencies in April 1987 and developed under the authorities of the Earthquake Hazards Reduction Act of 1977 and the Disaster Relief Act of 1974, as amended by the Stafford Disaster Relief Act of 1988.

First Responders, First Response Agency: A public health or safety agency (e.g., fire service or police department) charged with responding to a spill during the emergency phase and alleviating immediate danger to human life, health, safety, or property.

Handle: To transfer, transport, pump, treat, process, store, dispose of, drill for, or produce.

Harmful Quantity Of Oil: The presence of oil from an unauthorized discharge in a quantity sufficient either to create a visible film or sheen upon or discoloration of the surface of the water or a shoreline, tidal flat, beach, or marsh, or to cause a sludge or emulsion to be deposited beneath the surface of the water or on a shoreline, tidal flat, beach, or marsh.

Hazardous Material: Any non radioactive solid, liquid, or gaseous substance which, when uncontrolled, may be harmful to humans, animals, or the environment. Including but not limited to substances otherwise defined as hazardous wastes, dangerous wastes, extremely hazardous wastes, oil, or pollutants.

Hazardous Substance: Any substance designed as such by the Administrator of the EPA pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act; regulated pursuant to Section 311 of the Federal Water Pollution Control Act, or discharged by the SERC.

Hazardous Waste: Any solid waste identified or listed as a hazardous waste by the Administrator of the EPA pursuant to the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), 42 U.S.C., Section 6901, et seq as amended. The EPA Administrator has identified the characteristics of hazardous wastes and listed certain wastes as hazardous in Title 40 of the Code of Federal Regulations, Part 261, Subparts C and D respectively.

HAZMAT: Hazardous materials or hazardous substances, exposure to which may result in adverse effects on health or safety of employees.

HAZWOPER: Hazardous Waste Operations and Emergency Response Regulations published by OSHA to cover worker safety and health aspects of response operations.

Heat Stress: Dangerous physical condition caused by over exposure to extremely high temperatures.

Hypothermia: Dangerous physical condition caused by over exposure to freezing temperatures.

Incident: Any event that results in a spill or release of oil or hazardous materials. Action by emergency service personnel may be required to prevent or minimize loss of life or damage to property and/or natural resources.

Incident Briefing Meeting: Held to develop a comprehensive, accurate, and up-to-date understanding of the incident, nature of status of control operations, and nature and status of response operations; ensure the adequacy of control and response operations; begin to organize control and response operations; and prepare for interactions with outside world.

Incident Command Post (ICP): That location at which all primary command functions are executed.

Incident Command System (ICS): The combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure, with responsibility for the management of assigned resources at an incident.

Incident Commander (IC): The one individual in charge at any given time of an incident. The Incident Commander will be responsible for establishing a unified command with all on-scene coordinators.

Indian Tribe: As defined in OPA section 1001, means any Indian tribe, band, nation, or other organized group or community, but not including any Alaska Native regional or village corporation, which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians and has governmental authority over lands belonging to or controlled by the Tribe.

Initial Cleanup: Remedial action at a site to eliminate acute hazards associated with a spill. An initial clean-up action is implemented at a site when a spill of material is an actual or potentially imminent threat to public health or the environment, or difficulty of cleanup increases significantly without timely remedial action. All sites must be evaluated to determine whether initial cleanup is total cleanup, however, this will not be possible in all cases due to site conditions (i.e., a site where overland transport or flooding may occur).

Initial Notification: The process of notifying necessary the Company personnel and Federal/ State/Local agencies that a spill has occurred, including all pertinent available information surrounding the incident.

Initial Response Actions: The immediate actions that are to be taken by the spill observer after detection of a spill.

Inland Area: The area shoreward of the boundary lines defined in 46 CFR part 7, except that in the Gulf of Mexico, it means the area shoreward of the lines of demarcation (COLREG lines) as defined in §80.740 through 80.850 of this chapter. The inland area does not include the Great Lakes.

Inland Waters: State waters not considered coastal waters; lakes, rivers, ponds, streams, underground water, et. al.

Inland Zone: Means the environment inland of the coastal zone excluding the Great Lakes, and specified ports and harbors on inland rivers. The term inland zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in federal regional contingency plans.

Interim Storage Site: A site used to temporarily store recovered oil or oily waste until the recovered oil or oily waste is disposed of at a permanent disposal site. Interim storage sites include trucks, barges, and other vehicles, used to store waste until the transport begins.

Lead Agency: The government agency that assumes the lead for directing response activities.

Lead Federal Agency: The agency which coordinates the federal response to incident on navigable waters. The lead federal agencies are:

- **U.S. Coast Guard:** Oil and chemically hazardous materials incidents on navigable waters.
- **Environmental Protection Agency:** Oil and chemically hazardous materials incidents on inland waters.

Lead State Agency: The agency which coordinates state support to federal and/or local governments or assumes the lead in the absence of federal response.

Loading: Transfer from Facility to vehicle.

Local Emergency Planning Committee (LEPC): A group of local representatives appointed by the State Emergency Response Commission (SERC) to prepare a comprehensive emergency plan for the local emergency planning district, as required by the Emergency Planning and Community Right-to-know Act (EPCRA).

Local Response Team: Designated Facility individuals who will fulfill the roles determined in the oil spill response plan in the event of an oil or hazardous substance spill. They will supervise and control all response and clean-up operations.

Lower Explosive Limit: Air measurement utilized to determine the lowest concentration of vapors that support combustion. This measurement must be made prior to entry into a spill area.

Marinas: Small harbors with docks, services, etc. for pleasure craft.

Medium Discharge: Means a discharge greater than 2,100 gallons (50 Bbls) and less than or equal to 36,000 gallons (85+ Bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD.

National Contingency Plan: The plan prepared under the Federal Water Pollution Control Act (33 United State Code §1321 et seq) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 United State Code § 9601 et seq), as revised from time to time.

National Pollution Funds Center (NPFC): Means the entity established by the Secretary of Transportation whose function is the administration of the Oil Spill Liability Trust Fund (OSLTF). Among the NPFC's duties are: providing appropriate access to the OSLTF for federal agencies and states for removal actions and for federal trustees to initiate the assessment of natural resource damages; providing appropriate access to the OSLTF for claims; and coordinating cost recovery efforts.

National Response System (NRS): Is the mechanism for coordinating response actions by all levels of government in support of the OSC. The NRS is composed of the NRT, RRTs, OSC, Area Committees, and Special Teams and related support entities.

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

National Strike Force Coordination Center (NSFCC): Authorized as the National Response Unit by CWA section 311(a)(23) and (j)(2), means the entity established by the Secretary of the department in which the USCG is operating at Elizabeth City, North Carolina, with responsibilities that include administration of the USCG Strike Teams, maintenance of response equipment inventories and logistic networks, and conducting a national exercise program.

Natural Resource: Land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to or otherwise controlled by the state, federal government, private parties, or a municipality.

Navigable Waters: As defined by 40 CFR 110.1 means the waters of the United States, including the territorial seas. 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 that are subject to the ebb and flow of the tide;

Interstate waters, including interstate wetlands;

All other waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, and wetlands, the use, degradation, or destruction of which would affect or 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;
- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; and
- that are used or could be used for industrial purposes by industries in interstate commerce.

All impoundments of waters otherwise defined as navigable waters under this section;

Tributaries of waters identified in paragraphs (a) through (d) of this definition, including adjacent wetlands; and

Wetlands adjacent to waters identified in paragraphs (a) through (e) of this definition: Provided, that waste treatment systems (other than cooling ponds meeting the criteria of this paragraph) are not waters of the United States.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act jurisdiction remains with EPA.

Nearshore Area: For OPA 90, the area extending seaward 12 miles from the boundary lines defined in 46 CFR Part 7, except in the Gulf of Mexico. In the Gulf of Mexico, it means the area extending seaward 12 miles from the line of demarcation defined in §80.740 - 80.850 of title 33 of the CFR.

Non-persistent or Group I Oil: A petroleum-based oil that, at the time of shipment, consists of hydrocarbon fractions:

1. At least 50% of which by volume, distill at a temperature of 340 degrees C (645 degrees F);
2. At least 95% of which volume, distill at a temperature of 370 degrees C (700 degrees F).

Ocean: The open ocean, offshore area, and nearshore area as defined in this subpart.

Offshore area: The area up to 38 nautical miles seaward of the outer boundary of the nearshore area.

Oil or Oils: Naturally occurring liquid hydrocarbons at atmospheric temperature and pressure coming from the earth, including condensate and natural gasoline, and any fractionation thereof, including, but not limited to, crude oil, petroleum gasoline, fuel oil, diesel oil, oil sludge, oil refuse, and oil mixed with wastes other than dredged spoil. Oil does not include any substance listed in Table 302.4 of 40 CFR Part 302 adopted August 14, 1989, under Section 101(14) of the federal comprehensive environmental response, compensation, and liability act of 1980, as amended by P. L. 99-499.

Oil Spill Liability Trust Fund: Means the fund established under section 9509 of the Internal Revenue Code of 1986 (26 U.S.C. 9509).

Oily Waste: Product contaminated waste resulting from a spill or spill response operations.

On-Scene Coordinator (OSC): Means the federal official predesignated by the EPA or the USCG to coordinate and direct response under subpart D.

On-site: Means the area extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of a response action.

Open Ocean: Means the area from 38 nautical miles seaward of the outer boundary of the nearshore area, to the seaward boundary of the exclusive economic zone.

Owner or Operator: Any person, individual, partnership, corporation, association, governmental unit, or public or private organization of any character.

Persistent Oil: A petroleum-based oil that does not meet the distillation criteria for a non-persistent oil. For the purposes of this Appendix, persistent oils are further classified based on specific gravity as follows:

1. Group II specific gravity less than .85
2. Group III specific gravity between .85 and less than .95
3. Group IV specific gravity .95 and including 1.0
4. Group V specific gravity greater than 1.0

Plan Holder: The plan holder is the industry transportation related facility for which a response plan is required by federal regulation to be submitted by a vessel or facility's owner or operator.

Post Emergency Response: The portion of a response performed after the immediate threat of a release has been stabilized or eliminated and cleanup of the sites has begun.

Post Emergency: The phase of response operations conducted after the immediate threat of the release has been stabilized, and cleanup operations have begun.

Primary Response Contractors or Contractors: An individual, company, or cooperative that has contracted directly with the plan holder to provide equipment and/or personnel for the containment or cleanup of spilled oil.

Qualified Individual (QI): That person or entity who has authority to activate a spill cleanup contractors, act as liaison with the "On-Scene Coordinator" and obligate funds required to effectuate response activities.

Regional Response Team (RRT): The Federal response organization (consisting of representatives from selected Federal and State agencies) which acts as a regional body responsible for overall planning and preparedness for oil and hazardous materials releases and for providing advice to the OSC in the event of a major or substantial spill.

Remove or Removal: As defined by section 311(a)(8) of the CWA, refers to containment and removal of oil or hazardous substances from the water and shorelines or the taking of such other actions as may be necessary to minimize or mitigate damage to the public health or welfare (including, but not limited to, fish, shellfish, wildlife, public and private property, and shorelines and beaches) or to the environment. For the purpose of the NCP, the term also includes monitoring of action to remove discharge.

Response Activities: The containment and removal of oil from the water and shorelines, the temporary storage and disposal of recovered oil, or the taking of other actions as necessary to minimize or mitigate damage to public health or welfare, or the environment.

Response Contractors: Persons/companies contracted to undertake a response action to contain and/or clean up a spill.

Response Guidelines: Guidelines for initial response that are based on the type of product involved in the spill, these guidelines are utilized to determine clean-up methods and equipment.

Response Plan: A practical manual used by industry for responding to a spill. Its features include: (1) identifying the notifications sequence, responsibilities, response techniques, etc. in a easy to use format; (2) using decision trees, flowcharts, and checklists to insure the proper response for spills with varying characteristics; and (3) segregating information needed during the response from data required by regulatory agencies to prevent confusion during a spill incident.

Response Resources: All personnel and major items of equipment available, or potentially available, for assignment to incident tasks on which status is maintained.

Responsible Party: Any person, owner/operator, or facility that has control over an oil or hazardous substance immediately before entry of the oil or hazardous substance into the atmosphere or in or upon the water, surface, or subsurface land of the state.

Response Priorities: Mechanism used to maximize the effective use of manpower and equipment resources based upon their availability during an operational period.

Response Resources: All personnel and major items of equipment available, or potentially available, for assignment to incident tasks on which status is maintained.

Restoration: The actions involved in returning a site to its former condition.

Rivers and Canals: A body of water confined within the inland area that has a project depth of 12 feet or less, including the Intracoastal Waterway and other waterways artificially created for navigation.

Securing the Source: Steps that must be taken to stop discharge of oil at the source of the spill.

Sinking Agents: Means those additives applied to oil discharges to sink floating pollutants below the water surface.

Site Characterization: An evaluation of a cleanup site to determine the appropriate safety and health procedures needed to protect employees from identified hazards.

Site Conditions: Details of the area surrounding the facility, including shoreline descriptions, typical weather conditions, socioeconomic breakdowns, etc.

Site Safety and Health Plan: A site specific plan developed at the time of an incident that addresses:

- Safety and health hazard analysis for each operation.
- Personal protective equipment to be used.
- Training requirements for site workers.
- Medical surveillance requirements.
- Air monitoring requirements.
- Site control measures.
- Decontamination procedures.
- Emergency response procedures.
- Confined space entry procedures.

Site Security and Control: Steps that must be taken to provide safeguards needed to protect personnel and property, as well as the general public, to ensure an efficient clean-up operation.

Skimmers: Mechanical devices used to skim the surface of the water and recover floating oil. Skimmers fall into four basic categories (suction heads, floating weirs, oleophilic surface units, and hydrodynamic devices) which vary in efficiency depending on the type of oil and size of spill.

Snare Boom: Oil will adhere to the material of which this boom is made of and thus collect it.

Sorbents: Materials ranging from natural products to synthetic polymeric foams placed in confined areas to soak up small quantities of oil. Sorbents are very effective in protecting walkways, boat decks, working areas, and previously uncontaminated or cleaned areas.

Spill: An unauthorized discharge of oil or hazardous substance into the waters of the state.

Spill Observer: The first Facility individual who discovers a spill. This individual must function as the first responder and person-in-charge until relieved by an authorized supervisor.

Spill of National Significance (SONS): Means a spill which due to its severity, size, location, actual or potential impact on the public health and welfare or the environment, or the necessary response effort, is so complex that it requires extraordinary coordination of federal, state, local, and responsible party resources to contain and cleanup the discharge.

Spill Management Team: The personnel identified to staff the organizational structure identified in a response plan to manage response plan implementation.

Spill Response: All actions taken in responding to spills of oil and hazardous materials, e.g.: receiving and making notifications; information gathering and technical advisory phone calls; preparation for and travel to and from spill sites; direction of clean-up activities; damage assessments; report writing, enforcement investigations and actions; cost recovery; and program development.

Spill Response Personnel: Federal, state, local agency, and industry personnel responsible for participating in or otherwise involved in spill response. All spill response personnel will be pre-approved on a list maintained in each region.

Staging Areas: Designated areas near the spill site accessible for gathering and deploying equipment and/or personnel.

State Emergency Response Commission(SERC): A group of officials appointed by the Governor to implement the provisions of Title III of the Federal Superfund Amendments and Re-authorization Act of 1986 (SARA). The SERC approves the State Oil and Hazardous Substance Discharge Prevention and Contingency Plan and Local Emergency Response Plans.

Surface Collecting Agents: Means those chemical agents that form a surface film to control the layer thickness of oil.

Surface Washing Agent: Is any product that removes oil from solid surfaces, such as beaches and rocks, through a detergency mechanism and does not involve dispersing or solubilizing the oil into the water column.

Tanker: A self-propelled tank vessel constructed or adapted primarily to carry or hazardous material in bulk in the cargo spaces.

Tidal Current Tables: Tables which contain the predicted times and heights of the high and low waters for each day of the year for designated areas.

Trajectory Analysis: Estimates made concerning spill size, location, and movement through aerial surveillance or computer models.

Transfer: Any movement of oil to, from, or within a vessel by means of pumping, gravitation, or displacement.

Trustee: Means an official of a federal natural resources management agency designated in subpart G of the NCP or a designated state official or Indian tribe or, in the case of discharges covered by the OPA, a foreign government official, who may pursue claims for damages under section 1006 of the OPA.

Underwriter: An insurer, a surety company, a guarantor, or any other person, other than an owner or operator of a vessel or facility, that undertakes to pay all or part of the liability of an owner or operator.

Unified Command: The method by which local, state, and federal agencies and the responsible party will work with the Incident Commander to:

- Determine their roles and responsibilities for a given incident.
- Determine their overall objectives for management of an incident.
- Select a strategy to achieve agreed-upon objectives.
- Deploy resources to achieve agreed-upon objectives.

Unified or Coordinated Command Meeting: Held to obtain agreement on strategic objectives and response priorities; review tactical strategies; engage in joint planning, integrate response operations; maximize use of resources; and minimize resolve conflicts.

Volunteers: An individual who donates their services or time without receiving monetary compensation.

Waste: Oil or contaminated soil, debris, and other substances removed from coastal waters and adjacent waters, shorelines, estuaries, tidal flats, beaches, or marshes in response to an unauthorized discharge. Waste means any solid, liquid, or other material intended to be disposed of or discarded and generated as a result of an unauthorized discharge of oil. Waste does not include substances intended to be recycled if they are in fact recycled within 90 days of their generation or if they are brought to a recycling facility within that time.

Wetlands: Those areas that are inundated or saturated by surface or groundwater at a frequency or 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 playa lakes, swamps, marshes, bogs, and similar areas such as sloughs, prairie potholes, wet meadows, prairie river overflows, mudflats, and natural ponds (40 CFR 112.2(y)).

Wildlife Rescue: Efforts made in conjunction with Federal and State agencies to retrieve, clean, and rehabilitate birds and wildlife affected by an oil spill.

Worst Case Discharge: The largest foreseeable discharge under adverse weather conditions. For facilities located above the high water line of coastal waters, a worst case discharge includes those weather conditions most likely to cause oil discharged from the facility to enter coastal waters.

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| ACRONYMS |
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| AC | Area Committee |
| AOR | Area of Review |
| AQI | Alternate Qualified Individual |
| ACP | Area Contingency Plan |
| ACPs | Area Contingency Plans |
| bb/hr | Barrel per Hour |
| BIA | Bureau of Indian Affairs |
| BLM | Bureau of Land Management |
| BPD | Barrels Per Day |
| BOD | Biological Oxygen Demand |
| BOEMRE | Bureau of Ocean Energy Management Regulation and Enforcement |
| BOM | Bureau of Mines |
| CAER | Community Awareness and Emergency Response |
| CAS Number | Chemical Abstracts Service |
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act |
| CFR | Code of Federal Regulations |
| CG | Coast Guard |
| CHEMTREC | Chemical Transportation Emergency Center |
| COE | U.S. Army Corps of Engineers |
| COTP | Captain of the Port |
| CPI | Corrugated Plate Interceptor |
| CRZ | Contamination Reduction Zone |
| CST | Civil Support Team |
| CWA | Clean Water Act (Federal - Public Law 100-4) |
| CWS | Community Water System |
| CZM | Coastal Zone Management |
| DECON | Decontamination |
| DENR | Department of Environment and Natural Resources |
| DHS | Department of Homeland Security |
| DNR | Department of Natural Resources |
| DOC | Department of Commerce |
| DOCL | Documentation Unit Leader |
| DOD | Department of Defense |
| DOE | Department of Energy |
| DOI | Department of Interior |
| DOJ | Department of Justice |
| DOL | Department of Labor |
| DOS | Department of State |
| DOT | Department of Transportation |

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| EBS | Emergency Broadcast System |
| EDRC | Estimated Daily Recovery Capability |
| EET | Environmental Emergency Team |
| EHS | Extremely Hazardous Substance |
| EMS | Emergency Management System |
| EOC | Emergency Operations Center |
| EPA | U. S. Environmental Protection Agency |
| EPCRA | Emergency Planning and Community Right-to-Know Act of 1986 (Title III of SARA) |
| EQ | Environmental Quality |
| ESA | Endangered Species Act |
| ETA | Estimated Time of Arrival |
| FAA | Federal Aviation Administration |
| FAX | Facsimile Machine |
| FBI | Federal Bureau of Investigation |
| FCC | Federal Communications Commission |
| FEMA | Federal Emergency Management Agency |
| FIR | Field Investigation Report |
| FOSC | Federal On-Scene Coordinator |
| FR | Federal Register |
| FRDA | Federal Resources Damage Assessment |
| FRF | Federal Revolving Fund |
| GIS | Geographic Information System |
| GSA | General Services Administration |
| HAZMAT | Hazardous Material |
| HAZWOPER | Hazardous Waste Operations and Emergency Response Standard |
| HEPA OVV | High Efficiency Particle Air Device |
| HF ERW | High Frequency Electric-Resistance Weld |
| HHS | Department of Health and Human Services |
| HLS | Homeland Security |
| HOPD | Head Office Products Distribution |
| HVAC | Heating, Ventilating, and Air Conditioning |
| IAP | Incident Action Plan |
| IBRRC | International Bird Rescue Research Center |
| IC | Incident Commander |
| ICS | Incident Command System |
| ID NO. | Identification Number |
| IMH | Incident Management Handbook |
| IMS | Incident Management System |
| KM | Kilometer |
| KP | Kilometer Point |
| LE | Law Enforcement |
| LEPC | Local Emergency Planning Committee |

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|-------------------|---|
| LFL | Lower Flammable Limit |
| LO | Liaison Officer |
| LOSC | Local On-Scene Coordinator |
| LPG | Liquefied Petroleum Gas |
| LRT | Local Response Team |
| LSC | Logistics Section Chief |
| LF ERW | Low Frequency Electric-Resistance Weld |
| LEL | Lower Explosive Limit |
| MBL | Mobile |
| MEDEVAC | Medical Evacuation |
| MMS | Minerals Management Service, replaced by BOEMRE |
| MOU | Memorandum of Understanding |
| MSDS | Material Safety Data Sheets |
| MSO | Marine Safety Office |
| MSRC | Marine Spill Response Corporation |
| NCP | National Contingency Plan |
| NCWS | Non-Community Water System |
| NEECP (CA) | National Environmental Emergencies Contingency Plan |
| NEPA | National Environmental Policy Act |
| NFPA | National Fire Protection Association |
| NIMS | National Incident Management System |
| NOAA | National Oceanographic Atmospheric Administration |
| NRC | National Response Center |
| NRDAR | Natural Resource Damage Assessment and Restoration |
| NRS | National Response System |
| NRT | National Response Team |
| NSF | National Strike Force |
| NSFCC | National Strike Force Coordination Center |
| O&M | Operations and Maintenance |
| OCC | Operations Coordination Center |
| OP | Operational Period |
| OPA | Oil Pollution Act |
| OPS | Operations |
| OSC | On-Scene Coordinator |
| OSC | Operation Section Chief |
| OSHA | Occupational Safety & Health Administration |
| OSLTF | Oil Spill Liability Trust Fund |
| OSPRA | Oil Spill Prevention and Response Act |
| OSRO | Oil Spill Removal Organization |
| OSRP | Oil Spill Response Plan |
| OSRV | Oil Spill Response Vessel |
| OV | Organic Vapor |
| PCB | Polychlorinated Biphenyl's |

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| PFD | Personal Floatation Device |
| PGR | Pager |
| PHMSA | Pipeline and Hazardous Materials Safety Administration |
| PIAT | Public Information Assist Team |
| POC | Point of Contact |
| POLREP | Pollution Report |
| PPE | Personal Protective Equipment |
| PPM | Parts Per Million |
| PREP | Preparedness for Response Exercise Program |
| PSC | Planning Section Chief |
| PSD | Prevention of Significant Deterioration |
| PVC | Polyvinyl Chloride |
| PWSD | Public Water Supply District |
| QI | Qualified Individual |
| RACT | Reasonably Achievable Control Technology |
| RCP | Regional Contingency Plan |
| RCRA | Resource Conservation and Recovery Act |
| RECON | Reconnaissance |
| REP | Radiological Emergency Preparedness |
| RERT | Radiological Emergency Response Team |
| RESL | Resource Leader |
| RP | Responsible Party |
| RPIC | Responsible Party Incident Commander |
| RQ | Reportable Quantity |
| RRT | Regional Response Team |
| RSPA | Research and Special Programs Administration (replaced by PHMSA) |
| R/W | Right-of-Way |
| RWD | Rural Water District |
| SAR | Search and Rescue |
| SARA | Superfund Amendments and Reauthorization Act |
| SART | Search and Rescue Transporter |
| SCADA | Supervisory Control and Data Acquisition |
| SCBA | Self Contained Breathing Apparatus |
| SDWA | Safe Drinking Water Act |
| SERC | State Emergency Response Center |
| SERC | State Emergency Response Commission |
| SI | Security Incident |
| SIC | State Implementation Plan |
| SITL | Situation Unit Leader |
| SMT | Spill Management Team |
| SO | Security Officer |
| SONS | Spill of National Significance |

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|------------------|---|
| SOP | Standard Operating Procedure |
| SOR | Statutory Orders and Regulations |
| SORS | Spilled oil Recovery System |
| SOSC | State On-Scene Coordinator |
| SPCC | Spill Prevention, Control, and Countermeasure |
| Sq. Ft. | Square Foot |
| SSC | Scientific Support Coordinator (NOAA) |
| SSPs | Site Safety Plans |
| STAM | Staging Area Manager |
| STEL | Short Term Exposure Limits |
| SUPSALV | United States Navy Supervisor of Salvage |
| SWD | Salt Water Disposal |
| TBA | To be Assigned |
| TSB | Transportation Safety Board |
| TSC | Temporary Storage Capacity |
| TSCA | Toxic Substances Control Act |
| TSD | Temporary Storage and Disposal |
| TSDF | Treatment, Storage or Disposal Facility |
| TWIC | Transportation Worker Identification Credential |
| UC | Unified Command |
| UCS | Unified Command System |
| UN Number | United Nations |
| US | United States |
| USACOE | U. S. Army Corps of Engineers |
| USCG | United States Coast Guard |
| USDA | U. S. Department of Agriculture |
| USDL | U. S. Department of Labor |
| USDOD | U. S. Department of Defense |
| USDOE | U. S. Department of Energy |
| USDW | Underground Source of Drinking Water |
| USEPA | U. S. Environmental Protection Agency |
| USFWS | U. S. Fish and Wildlife Services |
| USGS | U. S. Geological Survey |
| VOC | Volatile Organic Compound |
| Vol. | Volume |
| VOSS | Vessel of Opportunity Skimmer System |
| Vsl. | Vessel |
| WCD | Worst Case Discharge |



REGULATORY CROSS REFERENCE

[U.S. EPA - OPA 90](#)

[DOT/PHMSA](#)

[OSHA Emergency Action Plans](#)

[OSHA HAZWOPER](#)

| U.S. EPA - OPA 90 40 CFR Part 112.21 and Appendix F | | | |
|--|----------------------------|---|------------------------------------|
| 40 CFR 112.21 | 40 CFR 112Appendix F | BRIEF DESCRIPTION | LOCATION IN PLAN |
| ---- | 1.0 | Model Facility-Specific Response Plan | ---- |
| (1) | 1.1 | Emergency Response Action Plan | ---- |
| (1)(i) | | 1. Qualified Individual Information | ERAP - QI Info |
| (1)(ii) | | 2. Emergency Notification Phone List | ERAP - Notifications |
| (1)(iii) | | 3. Spill Response Notification Form | ERAP - Notifications |
| (1)(iv) | | 4. Response Equipment List and Location | ERAP - Facility Equipment List |
| ---- | | 5. Response Equipment Testing and Deployment | ERAP - Facility Equipment List |
| (1)(v) | | 6. Facility Response Team | ERAP - Local Response Team |
| (1)(vi) | | 7. Evacuation Plan | ERAP - Evacuation Diagram |
| (1)(vii) | | 8. Immediate Actions | ERAP - Initial Response Actions |
| (1)(viii) | | 9. Facility Diagram | ERAP - Facility Diagram(s) |
| (2) | 1.2 | Facility Information | ---- |
| | 1.2.1 | Facility name and location | Fig 1.1 |
| | 1.2.2 | Latitude and Longitude | Fig 1.1 |
| | 1.2.3 | Wellhead Protection Area | Fig 1.1 |
| | 1.2.4 | Owner/operator | Fig 1.1 |
| | 1.2.5 | Qualified Individual | Fig 1.1 |
| | 1.2.6 | Date of Oil Storage Start-up | Fig 1.1 |
| | 1.2.7 | Current Operation | Fig 1.1 |
| | 1.2.8 | Dates and Types of Substantial Expansion | Fig 1.1 |
| (3) | 1.3 | Emergency Response Information | ---- |
| (3)(iii) | 1.3.1 | Notification | 2.0 |
| (3)(i) | 1.3.2 | Response Equipment List/Location | App A |
| (3)(ii) | 1.3.3 | Response Equipment Testing/Deployment | App D |
| (3)(vi) | 1.3.3 | Response Equipment Testing/Deployment | App D |
| (3)(i) | 1.3.4 | Personnel | Fig 2.1 |
| (3)(iv) | ---- | A description of information to pass to response personnel | Fig 2.3 |

| U.S. EPA - OPA 90 40 CFR Part 112.21 and Appendix F | | | |
|--|----------------------------|--|---------------------|
| 40 CFR 112.21 | 40 CFR 112Appendix F | BRIEF DESCRIPTION | LOCATION IN PLAN |
| (3)(v) | ---- | A description of response personnel capabilities, including: | ---- |
| | ---- | <ul style="list-style-type: none"> duties of persons at the Facility during a response action | 3.2 |
| | ---- | <ul style="list-style-type: none"> response times and qualifications... | Fig 2.1 |
| (3)(ii) | ---- | <ul style="list-style-type: none"> Evidence of Contractual Arrangements | App A |
| (3)(vii) | 1.3.5 | Evacuation Plan/Diagrams | 3.7 |
| (3)(viii) | 1.3.5 | Evacuation Plan/Diagrams | App G |
| ---- | 1.3.6 | Qualified Individual's Duties | 4.2 |
| (3)(ix) | ---- | A description of the duties of the qualified individual that include | ---- |
| (3)(ix)(A) | ---- | Activate internal alarms and hazard communications systems | 4.2 |
| (3)(ix)(B) | ---- | Notify all response personnel, as needed | 4.2 |
| (3)(ix)(C) | ---- | Identify the character, exact source, amount, and extent of release | 4.2 |
| (3)(ix)(D) | ---- | Notify and provide necessary information to the appropriate Federal, State, and local authorities | 4.2 |
| (3)(ix)(E) | ---- | Assess the interaction of the spilled substance with water and/or other substances stored at the Facility | 4.2 |
| (3)(ix)(F) | ---- | Assess the possible hazards to human health and environment | 4.2 |
| (3)(ix)(G) | ---- | Assess and implement prompt removal actions | 4.2 |
| (3)(ix)(H) | ---- | Coordinate rescue and response actions | 4.2 |
| (3)(ix)(I) | ---- | Use authority to immediately access company funding | 4.2 |
| (3)(ix)(J) | ---- | Direct cleanup activities until properly relieved | 4.2 |
| (4) | 1.4 | Hazard Evaluation | ---- |
| | 1.4.1 | Hazard Identification | Fig 1.1, App C |
| | 1.4.2 | Vulnerability Analysis | 6.5 |
| | 1.4.3 | Analysis of the Potential for an Oil Spill | App C |
| | 1.4.4 | Facility Reportable Oil Spill History | App C |

| U.S. EPA - OPA 90 40 CFR Part 112.21 and Appendix F | | | |
|--|-----------------------|---|---------------------------|
| 40 CFR 112.21 | 40 CFR 112 Appendix F | BRIEF DESCRIPTION | LOCATION IN PLAN |
| (5) | 1.5 | Discharge Scenarios | ----- |
| (5)(ii) | 1.5.1 | Small and Medium Discharges | App B |
| (5)(iii) | 1.5.2 | Small and Medium Discharges | App B |
| (5)(i) | 1.5.3 | Worst Case Discharge | App B |
| (6) | 1.6 | Discharge Detection Systems | ----- |
| | 1.6.1 | Discharge Detection by Personnel | App C.2 |
| (3)(ix)(A) | 1.6.2 | Automated Discharge Detection | App C.2 |
| (7) | 1.7 | Plan Implementation | ----- |
| (7)(i) | 1.7.1 | Response actions to be carried out by facility personnel or contracted personnel, Response Resources for Small, Medium, and Worst Case Spills | 3.1, 3.2, App B |
| (7)(iii) | 1.7.2 | Disposal Plans | App E |
| (7)(iv) | 1.7.3 | Containment and Drainage Planning | App C.1 |
| (8) | 1.8 | Self-Inspection, Drills/Exercises, and Response Training | ----- |
| (8)(i) | 1.8.1 | Facility Self-Inspection | App C |
| (8)(i) | 1.8.1.1 | Tank Inspection/Secondary Containment | App C |
| (8)(i) | 1.8.1.2 | Response Equipment Inspection | App A |
| (8)(ii) | 1.8.2 | Facility Drills/Exercises | App D |
| (8)(iv) | 1.8.2.1 | Qualified Individual Notification Drill Log | App F |
| (8)(iv) | 1.8.2.2 | Spill Management Team Tabletop Exercise Log | App F |
| (8)(iii) | 1.8.3 | Response Training | App D |
| (8)(iv) | 1.8.3.1 | Personnel Response Training Log | App F |
| (8)(iv) | 1.8.3.2 | Discharge Prevention Meeting Log | App F |
| (9) | 1.9 | Diagrams | ----- |
| | | (1) Site Plan Diagram | App G |
| | | (2) Site Drainage Plan Diagram | App G |
| | | (3) Site Evacuation Plan Diagram | App G |
| (10) | 1.10 | Security | App C |
| (11) | 2.0 | Response Plan Cover Sheet | Fig 1.1 |
| ----- | 3.0 | Acronyms | Glossary and Acronyms Tab |

| U.S. EPA - OPA 90 40 CFR Part 112.21 and Appendix F | | | |
|--|--------------------------|--|---------------------|
| 40 CFR 112.21 | 40 CFR 112 Appendix F | BRIEF DESCRIPTION | LOCATION IN PLAN |
| (a) | 1.8.2 | Develop a training and drill program that satisfies the requirements of this section | App D |
| (b) | 1.8.3 | Develop a facility response training program to train personnel involved in response activities. | App D |
| (b)(1) | 1.8.3 | Proper instruction of facility personnel in the procedures to respond to discharges of oil and in applicable oil spill response laws, rules, and regulations | App D |
| (b)(2) | 1.8.3 | Training shall be functional in nature according to job tasks for both supervisory and non-supervisory operational personnel | App D |
| (b)(3) | 1.8.2 | Trainers shall develop specific lesson plans on subject areas relevant to facility personnel involved in oil spill response and cleanup | App D |
| (c) | 1.8.2 | Develop a program of facility response drills/ exercises, including evaluation procedures. Can follow PREP. | App D |

| DOT/PHMSA 49 CFR Part 194 | | |
|--------------------------------------|--|-----------------------------|
| 49 CFR 194.105 | BRIEF DESCRIPTION | LOCATION IN PLAN |
| (a) | ... determine the worst case discharge ... provide methodology, including calculations, used to arrive at the volume. | App B |
| (b) | The worst case discharge is the largest volume, in barrels, of the following: | ----- |
| (b)(1) | ... maximum release time in hours, plus the maximum shutdown response time in hours, multiplied by the maximum flow rate expressed in barrels per hour, plus the largest line drainage volume after shutdown of the line section(s) ...; or | App B |
| (b)(2) | The largest foreseeable discharge for the line section(s) within a response zone, expressed in barrels, based on the maximum historic discharge, if one exists, adjusted for any subsequent corrective or preventative action taken; or | N/A (App B) |
| (b)(3) | If the response zone contains one or more breakout tanks, the capacity of the single largest tank or battery of tanks within a single secondary containment system, adjusted for the capacity or size of the secondary containment system, expressed in barrels. | N/A (App B) |
| (b)(4) | Operators may claim prevention credits for breakout tank secondary containment and other specific spill prevention measures as follows:... | N/A (App B) |
| 49 CFR 194.107 | | |
| (a) | Each response plan must plan for resources for responding, to the maximum extent practicable, to a worst case discharge, and to a substantial threat of such a discharge. | 5.0, App A |
| (b) | An operator must certify in the plan ... reviewed NCP and each applicable ACP... | Foreword |
| (b)(1) | As a minimum to be consistent with the NCP as a facility response plan must: | ----- |
| (b)(1)(i) | Demonstrate an operator's clear understanding of the function of the Federal response structure... | 4.5 |
| (b)(1)(ii) | Establish provisions to ensure the protection of safety at the response site; and | 5.3 |
| (b)(1)(iii) | Identify the procedures to obtain any required Federal and State permissions for using alternative response strategies such as in-situ burning and dispersants... | 6.8, 6.10 |
| (b)(2) | As a minimum, to be consistent with the applicable ACP the plan must: | ----- |
| (b)(2)(i) | Address the removal of a worst case discharge and the mitigation or prevention of a substantial threat of a worst case discharge; | 3, App A, App B, App E |
| (b)(2)(ii) | Identify environmentally and economically sensitive areas; | 6.0 |
| (b)(2)(iii) | Describe the responsibilities of the operator and of Federal, State and local agencies in removing a discharge and in mitigating or preventing a substantial threat of a discharge; and | 4.0 |

| DOT/PHMSA 49 CFR Part 194 | | |
|--------------------------------------|--|-------------------------------|
| 49 CFR 194.107 | BRIEF DESCRIPTION | LOCATION IN PLAN |
| (b)(2)(iv) | Establish the procedures for obtaining an expedited decision on use of dispersants or other chemicals. | 6.8, 6.10 |
| (c) | Each response plan must include: | ---- |
| (c)(1) | A core plan consisting of... | ---- |
| (c)(1)(i) | An information summary as required in 194.113, | Fig 1.1 |
| (c)(1)(ii) | Immediate notification procedures, | 2.0 |
| (c)(1)(iii) | Spill detection and mitigation procedures, | 3.0, App B |
| (c)(1)(iv) | The name, address, and telephone number of the oil spill response organization, if appropriate, | Fig 2.2, App A |
| (c)(1)(v) | Response activities and response resources, | 3.0, App A |
| (c)(1)(vi) | Names and telephone numbers of Federal, state, and local agencies which the operator expects to have pollution control responsibilities or support, | Fig 2.5 |
| (c)(1)(vii) | Training procedures, | App D |
| (c)(1)(viii) | Equipment testing, | App A |
| (c)(1)(ix) | Drill program - an operator will satisfy the requirement for a drill program by following the National Preparedness for Response Exercise Program (PREP) guidelines. An operator choosing not to follow PREP guidelines must have a drill program that is equivalent to PREP. The operator must describe the drill program in the response plan and OPS will determine if the program is equivalent to PREP. | App D |
| (c)(1)(x) | Plan review and update procedures; | 1.4 |
| (c)(2) | An Appendix for each response zone that includes the information required in paragraph (c)(1)(i)-(ix) of this section and the worst case discharge calculations that are specific to that response zone. An operator submitting a response plan for a single response zone does not need to have a core plan and a response zone Appendix. The operator of a single response zone onshore pipeline shall have a single summary in the plan that contains the required information in 194.113.7; and. | N/A |
| (c)(3) | A description of the operator's response management system including the functional areas of finance, logistics, operations, planning, and command. The plan must demonstrate that the operator's response management system uses common terminology and has a manageable span of control, a clearly defined chain of command, and sufficient trained personnel to fill each position. | 4.0 |
| 49 CFR 194.111 | | |
| (a) | Each operator shall maintain relevant portions of its response plan at the operator's headquarters and at other locations from which response activities may be conducted, for example, in field offices, supervisor's vehicles, or spill response trailers. | Foreword Distribution List |

| DOT/PHMSA 49 CFR Part 194 | | |
|--------------------------------------|---|-----------------------------|
| 49 CFR 194.113 | BRIEF DESCRIPTION | LOCATION IN PLAN |
| (a) | The information summary for the core plan, required by 194.107, must include: | ---- |
| (a)(1) | The name and address of the operator. | Fig 1.1 |
| (a)(2) | For each response zone which contains one or more line sections that meet the criteria for determining significant and substantial harm as described in 194.103, a listing and description of the response zones, including county(s) and state (s). | Fig 1.1 |
| (b) | The information summary for the response zone appendix, required in 194.107, must include: | ---- |
| (b)(1) | The information summary for the core plan. | Fig 1.1 |
| (b)(2) | The names or titles and 24-hour telephone numbers of the qualified individual(s) and at least one alternate qualified individual(s); | Fig 1.1 |
| (b)(3) | The description of the response zone, including county(s) and state(s), for those zones in which a worst case discharge could cause substantial harm to the environment. | Fig 1.1 |
| (b)(4) | A list of line sections for each pipeline contained in the response zone, identified by milepost or survey station number, or other operator designation. | Fig 1.1 |
| (b)(5) | The basis for the operator's determination of significant and substantial harm. | FWD |
| (b)(6) | The type of oil and volume of the worst case discharge. | Fig 1.1 |
| 49 CFR 194.115 | | |
| (a) | Each operator shall identify and ensure, by contract or other approved means, the resources necessary to remove, to the maximum extent practicable, a worst case discharge and to mitigate or prevent a substantial threat of a worst case discharge. | App A |
| (b) | An operator shall identify in the response plan the response resources which are available to respond within the time specified, after discovery of a worst case discharge, or to mitigate the substantial threat of such a discharge. | App A |
| 49 CFR 194.117 | | |
| (a) | Each operator shall conduct training to ensure that: | ----- |
| (a)(1) | All personnel know -- | ----- |
| (a)(1)(I) | Their responsibilities under the response plan | App D |
| (a)(1)(ii) | The name and address of, and the procedure for contacting, the operator on a 24-hour basis | App D |
| (a)(1)(iii) | The name of, and procedures for contacting, the qualified individual on a 24-hour basis | App D |

| DOT/PHMSA 49 CFR Part 194 | | |
|------------------------------|--|---------------------|
| 49 CFR 194.117 | BRIEF DESCRIPTION | LOCATION IN PLAN |
| (a)(2) | Reporting personnel know -- | ----- |
| (a)(2)(i) | The content of the information summary of the response plan. | App D |
| (a)(2)(ii) | The toll-free telephone number of the National Response Center | App D |
| (a)(2)(iii) | The notification process | App D |
| (a)(3) | Personnel engaged in response activities know -- | ----- |
| (a)(3)(I) | The characteristics and hazards of the oil discharged | App D |
| a)(3)(ii) | The conditions that are likely to worsen emergencies, including the consequences of facility malfunctions or failures, and the appropriate corrective actions. | App D |
| (a)(3)(iii) | The steps necessary to control any accidental discharge of oil and to minimize the potential for fire, explosion, toxicity, or environmental damage | App D |
| (a)(3)(iv) | The proper firefighting procedures and use of equipment, fire suits, and breathing apparatus | App D |
| (b) | Each operator shall maintain a training record for each individual that has been trained as required by this section. These records must be maintained in the following manner as long as the individual is assigned duties under the response plan | ----- |
| (b)(1) | Records for operator personnel must be maintained at the operator's headquarters | App D |
| (b)(2) | Records for personnel engaged in response, other than operator personnel, shall be maintained as determined by the operator. | App D |
| (b)(3) | Nothing in this section relieves an operator from the responsibility to ensure that all response personnel are trained to meet the OSHA standards for emergency response operations in 29 CFR 1910.120 ... | App D |
| 49 CFR 194.119 | | |
| (a) | Each owner shall submit two copies... | Distribution |
| (b) | ...PHMSA will notify the operator of any alleged deficiencies... | ----- |
| (c) | The operator...may petition PHMSA for reconsideration within 30 days... | ----- |
| (d) | ...PHMSA will approve the Response Plan... | ----- |
| (e) | ...The operator may submit a certification to PHMSA...that the operator has obtained, through contract or other approved means, the necessary private personnel and equipment to record, to the maximum extent practicable, to a worst case discharge... | N/A |
| (f) | ...PHMSA may require an operator to provide a copy of the response plan to the OSC... | ----- |

| OSHA EMERGENCY ACTION PLANS (29 CFR Part 1910.38) and Employee Alarm Systems (29 CFR Part 1910.165) | | |
|--|---|-------------------------|
| 29 CFR | BRIEF DESCRIPTION | LOCATION IN PLAN |
| 1910.38 | <i>Emergency action plan:</i> | |
| (a) | Application | 1.0 |
| (b) | Written and Oral Emergency Plans | Entire Plan |
| (c) | Elements: | ----- |
| (c)(1) | Procedures for reporting a fire or other emergency; | 2.0 |
| (c)(2) | Procedures for emergency evacuation, including type of evacuation and exit route assignments; | 3.7 |
| (c)(3) | Procedures to be followed by employees who remain to operate critical plant operations before they evacuate; | 3.0 |
| (c)(4) | Procedures to account for all employees after emergency evacuation has been completed. | 3.7 |
| (c)(5) | Procedures to be followed by employees performing rescue and medical duties; | 3.2 |
| (c)(6) | The name or job titles of every employee who may be contacted by employees who need more information about the plan or an explanation of their duties under the plan. | 2.0 |
| (d) | Alarm system | 2.1 |
| (e) | Training | App D |
| (f) | Review of Emergency Action Plan | 1.4 |
| 1910.165 | <i>Employee alarm systems:</i> | |
| (b) | General requirements | 2.1 |
| (b)(1) | Purpose of alarm system | 2.1 |
| (b)(4) | Preferred means of reporting emergencies | 2.1 |
| (d) | Maintenance and testing | App A |

| OSHA HAZWOPER 29 CFR Part 1910.120 | | |
|---------------------------------------|---|------------------|
| 29 CFR | BRIEF DESCRIPTION | LOCATION IN PLAN |
| 1910.120(q) | <i>Emergency response to hazardous substance releases:</i> | |
| (1) | Emergency response plan | Entire Plan |
| (2) | Elements of an emergency response plan: | ----- |
| (i) | Pre-emergency planning and coordination with outside parties | 2.0, App A |
| (ii) | Personnel roles, lines of authority, training, and communication | 2.0, 4.0, App D |
| (iii) | Emergency recognition and prevention | 3.0 |
| (iv) | Safe distances and places of refuge | 3.7 |
| (v) | Site security and control | App C.1 |
| (vi) | Evacuation routes and procedures | 3.7 |
| (vii) | Decontamination procedures | 3.5 |
| (viii) | Emergency medical treatment and response procedures | 3.2 |
| (ix) | Emergency alerting and response procedures | 2.0, 3.0 |
| (x) | Critique of response and follow-up | App D.5 |
| (xi) | PPE and emergency equipment | 3.6, App A |
| (xii) | Emergency response plan coordination and integration | 1.2 |
| (3) | Procedures for handling emergency response: | ----- |
| (i) | The senior emergency response official responding to an emergency shall become the individual in charge of a site-specific Incident Command System (ICS). | 3.0, 4.0, 5.0 |
| (ii) | The individual in charge of the ICS shall identify, to the extent possible, all hazardous substances or conditions, present and shall address as appropriate site analysis, use of engineering controls, maximum exposure limits, hazardous substance handling procedures, and use of any new technologies. | 3.0, 4.0, 5.0 |
| (iii) | Implementation of appropriate emergency operations and use of PPE. | 3.0, 4.0, 5.0 |
| (iv) | Employees engaged in emergency response and exposed to hazardous substances presenting an inhalation hazard or potential inhalation hazard shall wear positive pressure self-contained breathing apparatus while engaged in emergency response. | 3.0, 4.0, 5.0 |
| (v) | The individual in charge of the ICS shall limit the number of emergency response personnel at the emergency site, in those areas of potential or actual exposure to incident or site hazards, to those who are actively performing emergency operations. | 3.0, 4.0, 5.0 |
| (vi) | Backup personnel shall stand by with equipment ready to provide assistance or rescue. | 3.0, 4.0, 5.0 |

| OSHA HAZWOPER 29 CFR Part 1910.120 | | |
|---------------------------------------|--|------------------|
| 29 CFR | BRIEF DESCRIPTION | LOCATION IN PLAN |
| 1910.120(q) | <i>Emergency response to hazardous substance releases (cont'd):</i> | |
| (vii) | The individual in charge of the ICS shall designate a safety official, who is knowledgeable in the operations being implemented at the emergency response site. | 3.0, 4.0, 5.0 |
| (viii) | When activities are judged by the safety official to be an IDLH condition and/or to involve an imminent danger condition, the safety official shall have authority to alter, suspend, or terminate those activities. | 3.0, 4.0, 5.0 |
| (ix) | After emergency operations have terminated, the individual in charge of the ICS shall implement appropriate decontamination procedures. | 3.0, 4.0, 5.0 |
| (x) | When deemed necessary for meeting the tasks at hand, approved self-contained compressed air breathing apparatus may be used with approved cylinders from other approved self-contained compressed air breathing apparatus provided that such cylinders are of the same capacity and pressure rating. | 3.0, 4.0, 5.0 |
| (4) | Skilled support personnel | 4.0 |
| (5) | Specialist employees | 4.0 |
| (6) | Training | App D |
| (7) | Trainers | App D |
| (8) | Refresher training | App D |
| (9) | Medical surveillance and consultation | App D |
| (10) | Chemical protective clothing | App D |
| (11) | Post-emergency response operations | 3.0, 5.0, App D |