

Appendix I: RRT Roster

www.rrt5.org/RRT/Roster.aspx

Appendix I: RRT Contacts

REGIONAL RESPONSE TEAM 5

Fed Mem Agency	Primary	Alternate
EPA	Jason El-Zein US Environmental Protection Agency Emergency Response Branch #1 Ann Arbor, MI Office Phone: 734-214-4900 Hotline Phone (24hr): 312-353-2318 el-zein.jason@epa.gov	Sam Borries US Environmental Protection Agency Emergency Response Branch #2 Chicago IL Office Phone: 312-353-8360 Hotline Phone (24hr): 312-353-2318 borries.samuel@epa.gov
USCG	Jerry Popiel Department of Homeland Security US Coast Guard Ninth District Cleveland, OH Office Phone 216-902-6112 Hotline Phone (24 hr) 1-800-321-4400 Jerome.A.Popiel@uscg.mil	TJ Mangoni Department of Homeland Security US Coast Guard Ninth District Cleveland, OH Office Phone 216-902-6118 Hotline Phone (24 hr) 1-800-321-4400 Anthony.j.mangoni@d9.uscg.mil
NOAA	LT Rachel Pryor, NOAA Scientific Support Coordinator USCG D9 - Great Lakes 1240 East Ninth Street, Suite 339 Cleveland, OH 44199 Cell: 202-557-6801(primary telephone number) Office: 216-522-7760 Spill Emergency 24/7: 206-526-4911 rachel.l.pryor@noaa.gov	Adam Davis NOAA Scientific Support Coordinator for USCG District 8 Emergency Response Division (ERD)/ Office of Response and Restoration (OR&R) NOAA Gulf of Mexico Disaster Response Center 7344 Zeigler Blvd., Mobile, AL 36608 Office: 251.544.5012 Cellular: 206.549.7759 adam.davis@noaa.gov
FEMA	James Cullen, Program Analyst 312.408.5526 Chicago, IL james.cullen2@fema.dhs.gov (312) 408-5365/5498 FEMA-R5-Watch@fema.dhs.gov William King, Chief of Operations Integration Chicago, IL 312.408.5575 William.King5@fema.dhs.gov (312) 408-5365/5498 FEMA-R5-Watch@fema.dhs.gov	Sean O'Leary, FEMA Tech Hazards Branch Chief Chicago, IL 312.408.5389 sean.OLeary@fema.dhs.gov (312) 408-5365/5498 FEMA-R5-Watch@fema.dhs.gov

REGIONAL RESPONSE TEAM 5

Fed Mem Agency	Primary	Alternate
GSA	Jeremy R. Niksic Deputy Regional Director Western Regions Division Chicago Office of Mission Assurance Office: 312.353.1003 Cell: 312.501.0027 jeremy.niksic@gsa.gov	Mark K. McConnaughay Emergency Management Specialist Western Regions Division Chicago Office Office of Mission Assurance Office (312) 353-3487 Cell (312) 350-2313 mark.mcconnaughay@gsa.gov John Larsen Emergency Management Specialist Western Regions Division Chicago Office of Mission Assurance Desk (312) 353-8576 Cell (312) 909-8610 john.larsen@gsa.gov
DOS	Jeremy Greenwood (NRT Member) 202-647-3946 Washington DC GreenwoodJM@State.gov	Marc Porter (NRT Alternate) 202-647-6927 Washington DC PorterMR@State.gov Van Reidhead 202-647-3947 Washington DC ReidheadVE@state.gov
DOI	John V. Nelson Regional Environmental Officer for DOI Regions 3 & 4 Office of Environmental Policy and Compliance U.S. Department of the Interior phone: 202-208-6304 cell: 202-286-4327 fax: 202-208-6970 215-266-5155 (mobile 24/7) john_nelson@ios.doi.gov	Valincia Darby Regional Environmental Protection Specialist Department of the Interior, OEPC 200 Chestnut Street, Rm. 244 Philadelphia, PA 19106 Phone: (215) 597-5378 Fax: (215) 597-9845 Valincia_Darby@ios.doi.gov
DOE	John Crapo (NRT Member) 202-287-1035 Washington DC john.crapo@nnsa.doe.gov	Steve Bettenhausen Radiological Assistance Program Region 5 630-252-9503 Argonne, IL Steven.bettenhausen@nnsa.doe.gov

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Fed Mem Agency	Primary	Alternate
USDA	Travis Haas, PE Regional Environmental Program Manager US Forest Service-Eastern Regional Office Phone 414-297-1546 Fax 414-944-3975 626 E. Wisconsin Avenue Milwaukee, WI 53202 travis.j.haas@usda.gov	Gene Deemer, CHS III, PCP, CHEP United States Department of Agriculture Regional Emergency Support Function #11 Coordinator Region V- Minnesota, Wisconsin, Illinois, Indiana, Ohio & Michigan Cell: 224-337-2930 Email: eugene.deemer@usda.gov
DOL OSHA	Ken E. Montgomery Area Director Cincinnati OSHA Area Office 36 Triangle Park Dr. Cincinnati, Ohio 45246 (513) 841-4132 Montgomery.Ken@dol.gov	Darnell Crenshaw, CSP Assistant Regional Administrator Cooperative and State Programs Occupational Safety & Health Administration- Region 5 312-353-5977 (O) 312-339-9131 (M) crenshaw.darnell@dol.gov
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DOT	Tyler Patterson Director, Central Region Pipeline and Hazardous Materials Safety Administration Office of Hazardous Materials Safety 901 Locust St Suite 480 Kansas City, MO 64106 (816) 329-3815 (Phone) tyler.patterson@dot.gov	Neal Suchak Hazardous Materials Safety Assistance Team (HMSAT) Central Region Field Operations Office of Hazardous Materials Safety Pipeline and Hazardous Materials Safety Administration 901 Locust St., Suite 480 Kansas City, MO 64109 Cell: (202) 839-0498 Neal.Suchak@dot.gov

REGIONAL RESPONSE TEAM 5

Fed Mem Agency	Primary	Alternate
		Daniel Richards Hazardous Materials Safety Assistance Team (HMSAT) Central Region Field Operations Office of Hazardous Materials Safety Pipeline and Hazardous Materials Safety Administration (PHMSA) U.S. Dept. of Transportation Cell: 847-650-9803 daniel.richards@dot.gov
HHS	Mark Johnson Regional Director Department of Health and Human Services ATSDR- Division of Community Health Investigations Chicago, IL Office: 312-353-3436 Cell: 312-307-7415 mdjohnson@cdc.gov	Motria Caudill Environmental Health Scientist Department of Health and Human Services ATSDR- Division of Community Health Investigations Chicago, IL Office: 312-886-0267 Cell: 312-257-4853 mcaudill@cdc.gov
DOJ	Justin Smith (NRT Co-Member) Washington DC 202-514-0750 Justin.Smith@usdoj.gov Steven Ellis (R5 Rep at DOJ) Washington DC 202-514-3163 Steven.ellis@usdoj.gov	Patricia McKenna ASC of the R5 litigation group at DOJ's Environmental Enforcement Section Washington DC 202-616-6517 Patricia.mckenna@usdoj.gov
Illinois	Bobby Elzie Office of Emergency Response Manager Illinois Environmental Protection Agency Office: (217) 558-1673 W Cell: (217) 900-0492 Bobby.Elzie@Illinois.gov	Yeric Yarrington Illinois EPA-Springfield Office Phone: 217-524-1008 Hotline Phone (24hr): 217-782-7860 yeri.yarrington@illinois.gov
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Fed Mem Agency	Primary	Alternate
Michigan	Jay Eichkolt MI EGLE Lansing, MI Office Phone: 517-256-4408 Hotline Phone (24hr): EickholtJ1@michigan.gov	Vacant
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Ohio	Jim Mehl Ohio EPA Columbus, OH Office Phone: 614-644-2080 Hotline Phone (24hr): 800-282-9378 jim.mehl@epa.ohio.gov	Jodi Billman-Kotsko Ohio EPA Columbus, OH Office Phone: 614-836-8761 Hotline Phone (24hr): 800-282-9378 jodi.billman-kotsko@epa.ohio.gov
Wisconsin	David Woodbury WI DNR Madison, WI Office Phone: 608-266-2598 Hotline Phone (24hr): 800-943-0003 david.woodbury@wisconsin.gov	Issac Ross WI DNR Phone: (414) 263-8519 Cell: (414) 750-7140 Hotline Phone (24hr): 800-943-0003 Issac.Ross@Wisconsin.gov

Appendix II: Worst Case Discharges in Region 5

Available online at www.rrt5.org/RCPACPMMain/RCPACPAppearices/WorstCaseDischarges.aspx

Appendix II: FRP Worst Case Discharges in Region 5

Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Archer Daniels Midland Company	Archer Daniels Midland Company 2100 Gardner Expressway Quincy, IL 62305	Adams	IL	24640841	2119861	Upper Mississippi River		1/1/1957
Bunge Corporation	Bunge Corporation 203 34th St Cairo, IL 62914	Alexander	IL	2234171	470000	Ohio River/mississippi i River	0.25	1/1/1977
Athertons	Athertons 1865 II Rt 84 Thomson, IL 61285	Carroll	IL	6949000	6900000	Mississippi River	0.30	
Abbott Power Plant	Abbott Power Plant 1117 South Oak Street Champaign, IL 61820	Champaign	IL	1874040	1000000	Embarrass River		1/1/2071
Emulsicoat, Inc.	Emulsicoat, Inc. 1001 West Saline Court Urbana, IL 61801	Champaign	IL	9232017	2120942	Saline Branch Drainage Ditch	0.18	1/1/2007
Emulsicoat, Inc.-plant 1	Emulsicoat, Inc.-plant 1 705 E University Ave Urbana, IL 61801	Champaign	IL	4196055	1015232	City Of Urbana, Sewer	0.25	1/1/1974
MPLX Terminals LLC	MPLX Terminals LLC 511 South Staley Road Champaign, IL 61821	Champaign	IL	23333461	3458291	Clear Lake	1.00	1/1/1950
Marathon Pipe Line LLC	Marathon Pipe Line LLC 5825 E. Cumberland Martinsville, IL 62442	Clark	IL	87028826	11100600	North Fork Embarrass River		1/1/2008
Ameropan Oil Corproation, Inc	Ameropan Oil Corproation, Inc 3301 S California Ave Chicago, IL 60608	Cook	IL	23941355	6980000	Chicago Sanitary And Ship Cana		1/1/2047

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
ASII-Menzies Aviation-MDW	ASII-Menzies Aviation-MDW 5401 South Laramie Chicago, IL 60638	Cook	IL	1993935	636000	Chicago Ship And Sanitary Cana	0.00	1/1/2002
Asphalt Operating Services Of Chicago LI	Asphalt Operating Services Of Chicago LI 2835 East 106th Street Chicago, IL 60617	Cook	IL	19112072	4620000	Calumet River		15/05/2011
Bell Oil Terminal	Bell Oil Terminal 3741 S Pulaski Rd Chicago, IL 60623	Cook	IL	18391843	3048451	Chicago Sanitary & Ship Canal		1/1/1956
BNSF	BNSF 3611 West 38th Street Chicago, IL 60632	Cook	IL	2086892	1015235	Chicago Sanitary Ship Canal-Lake	0.00	
Buckeye Terminal LLC	Buckeye Terminal LLC 8600 W 71st St Bedford Park, IL 60501	Cook	IL	38633180	4620000	Illinois/michigan Canal	0.10	3/11/1948
Calumet Specialty Products Partners Lp	Calumet Specialty Products Partners Lp 14000 Mackinaw Ave Chicago, IL 60633	Cook	IL	6299162	425799	Grand Calumet River (border The Facility)		
Cargill, Inc.	Cargill, Inc. 12201 South Torrence Ave Chicago, IL 60617	Cook	IL	3743745	588130	Calumet River/calumet Lake	0.25	1/1/1950
Citgo Petroleum Company	Citgo Petroleum Company 135th Street And New Avenue Lemont, IL 60439	Cook	IL	335310614	11142600	Chicago Sanitary & Chip Canal		1/1/1933
Citgo Petroleum Corporation	Citgo Petroleum Corporation 2316 Terminal Dr Arlington Heights, IL 60005	Cook	IL	15277756	3435768	Unnamed Tributary And Stream	0.50	1/1/1954
Citgo Petroleum Corporation	Citgo Petroleum Corporation 3737 South Cicero Avenue Cicero, IL 60650	Cook	IL	14652130	431900	Chicago Sanitary & Ship Canal	0.25	1/1/2050

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Citgo Petroleum	Citgo Petroleum 2316 Terminal Dr Arlington Heights, IL 60005	Cook	IL	11802600	3214687	Higgins Creek	0.25	1/1/1961
Contanda Terminals	Contanda Terminals 13550 S Indiana Avenue Riverdale, IL 60627	Cook	IL	5847929	649703	Little Calumet River	0.25	1/1/1965
Egan Marine Corporation	Egan Marine Corporation 12200 East Canalbank Road, Po Box 669 Lemont, IL 60439	Cook	IL	760000	40000	Chicago Sanitary & Ship Canal	0.25	1/1/2087
Exxon Mobil Oil Corporation	Exxon Mobil Oil Corporation 2312 Terminal Dr Arlington Heights, IL 60005	Cook	IL	20510223	2711788	Higgins Creek	0.25	1/1/1955
Exxonmobil Corporation	Exxonmobil Corporation 3801 S Cicero Ave Cicero, IL 60804	Cook	IL	13139007	2310884	Chicago Sanitary & Ship Canal	0.25	1/1/1948
Great Lakes Terminal & Transport Corp.	Great Lakes Terminal & Transport Corp. 8800 W 71st St Summit Argo, IL 60501	Cook	IL	11554000	1050000	Chicago Sanitary & Ship Canal		1/1/2049
Heritage Asphalt, LLC	Heritage Asphalt, LLC 4950 West 41st Street Cicero, IL 60804	Cook	IL	5642971	3384106	Chicago Sanitary Ship Canal		1/1/1947
Heritage Environmental Services, Inc.	Heritage Environmental Services, Inc. 15330 Canal Bank Road Lemont, IL 60439	Cook	IL	402460	402460		0.25	
Imtt - Illinois	Imtt - Illinois 13589 Main Street Lemont, IL 60439	Cook	IL	42000000	2270409	Sanitary And Ship Canal		1/1/1954
Ingredion Inc.	Ingredion Inc. 6400 South Archer Avenue Bedford Park, IL 60501	Cook	IL	1709370	285000	Chicago Sanitary Ship Canal		1/1/1908

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Kinder Morgan Liquid Terminals LLC	Kinder Morgan Liquid Terminals LLC 12200 S Stony Island Ave Chicago, IL 60633	Cook	IL	18295290	2284114	Lake Calumet		1/1/1963
Kinder Morgan Liquid Terminals, LLC	Kinder Morgan Liquid Terminals, LLC 8500 W 68th St Argo, IL 60501	Cook	IL	112549869	3990000	Chicago Sanitary & Ship Canal	0.25	1/1/1951
Kinder Morgan	Kinder Morgan 1111 Elmhurst Road Elk Grove, IL 60007	Cook	IL	29465479	4804341	Higgins Creek	0.50	1/1/1959
Kinder Morgan	Kinder Morgan 4811 South Harlem Avenue Forest View, IL 60402	Cook	IL	21716505	3453027	Chicago Sanitary & Ship Canal	0.25	1/1/1946
Koppers Ind., Inc.	Koppers Ind., Inc. 3900 S Laramie Ave Cicero, IL 60650	Cook	IL	17499630	1019000	Chgo Sanitary & Ship Canal		1/1/1920
Korall Corporation	Korall Corporation 12300 South New Avenue Lemont, IL 60439	Cook	IL	27900385	5670000	Chicago Sanitary And & Ship		1/5/1995
Menzies ORD	Menzies ORD Northwest Corner Of Hanger Area Chicago, IL 60666	Cook	IL	23749313	2814000	Willow Creek	0.32	1/1/1959
MPLX Terminals, LLC	MPLX Terminals, LLC 3231 Busse Road Arlington Heights, IL 60005	Cook	IL	16357817	2439095	Higgins Creek	0.25	1/1/1960
Nustar Terminals Services, Inc.	Nustar Terminals Services, Inc. 3210 West 131st Street Blue Island, IL 60406	Cook	IL	29999038	5460000	Calumet Sag Channel	0.25	1/1/1946

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Olympic Petroleum Corporation	Olympic Petroleum Corporation 5000 West 41st Street Cicero, IL 60804	Cook	IL	5229235	420000	Chicago Ship Canal		1/3/1983
Ortek, Inc.	Ortek, Inc. 7601 . W 47th St Mccook, IL 60525	Cook	IL	2317500	250000			
Owens-corning Trumbull Asphalt	Owens-corning Trumbull Asphalt 7800 West 59th Street Summit Argo, IL 60501	Cook	IL	10214975	4800000	Chicago Sanitary & Ship Canal	1000.00	1/1/1944
Petroleum Fuel & Terminal Company	Petroleum Fuel & Terminal Company 4805 South Harlem Forest View, IL 60402	Cook	IL	19927502	3397909	Chicago River/des Plaies River	0.50	1/10/1978
Premcor Alsip Distribution Center	Premcor Alsip Distribution Center 3600 West 131st Street Alsip, IL 60803	Cook	IL	46681391	5019000	Calumet Sag Channel		1/1/1945
Shell Oil Products Us	Shell Oil Products Us 1605 E Algonquin Rd Arlington Heights, IL 60005	Cook	IL	10929538	4357500	Higgins Creek	0.20	1/1/1959
The Valvoline Company	The Valvoline Company 8450 Willow Springs Road Willow Springs, IL 60480	Cook	IL	3953440	1008000	Des Plaines River	0.25	1/1/1980
Union Pacific Railroad Company	Union Pacific Railroad Company 147th & Indiana Ave. Dolton, IL 60419	Cook	IL	0	693000		1.00	
Union Pacific Railroad	Union Pacific Railroad 5050 W Lake St Melrose Park, IL 60164	Cook	IL	1000000	1000000		1.50	
Unocal - See Frp0500282	Unocal - See Frp0500282 18401 Wolf Road Mokena, IL 60448	Cook	IL		672000		1.50	

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Marathon Ashland Petroleum LLC	Marathon Ashland Petroleum LLC 12345 East 1050th Avenue Robinson, IL 62454	Crawford	IL	14994	13902	Wabash River	0.70	1/1/1962
Marathon Petroleum Co	Marathon Petroleum Co 400 South Robinson Ave Robinson, IL 62454	Crawford	IL	315564944	12694577	Unnamed Tributary To Sugar Creek	0.50	1/1/1924
Marathon-no Oil Stored-no Oil	Marathon-no Oil Stored-no Oil S Eaton St Robinson, IL 62454	Crawford	IL	1146000	642000		0.50	
Countrymark Refining & Logistics LLC	Countrymark Refining & Logistics LLC Country Road 500 North Albion, IL 62806	Edwards	IL	9662500	6300000	Bonpas Creek		1/1/1962
Buckeye Terminal LLC	Buckeye Terminal LLC 18264 North U.s. Highway 45 Effingham, IL 62401	Effingham	IL	6385770	1902600	Drainage Ditch, Sugar Fork, Green Creek,	0.50	1/1/1940
Marathon Petroleum LLC	Marathon Petroleum LLC 200 East Fourth Street Saint Elmo, IL 62458	Fayette	IL	4702790	1807991	Brickyard Branch Creek	0.25	1/1/1940
One Earth Energy, LLC	One Earth Energy, LLC 202 North Jordan Gibson City, IL 60936	Ford	IL	4747315	1500000			1/6/2009
Solae, LLC	Solae, LLC 124 South Route 47, Box 112 Gibson City, IL 60936	Ford	IL	20809438	3078517	Drummer Creek	0.25	1/1/2039
Equistar Chemicals, LP	Equistar Chemicals, LP 8805 North Tabler Road Morris, IL 60450	Grundy	IL	1595401	804000	Storm Ditch To Aux Sable Creek		1/1/1968
Oneok North Systems, LLC	Oneok North Systems, LLC 4755 East Route 6 Morris, IL 60450	Grundy	IL	1057692	1050000	Aux Sable Creek		1/1/2063

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
RRR Tank Proeptrties, LLC	RRR Tank Proeptrties, LLC 23847 S. Youngs Road Joliet, IL 60416	Grundy	IL	8433670	2299653	Des Plaines River		1/4/2010
Growmark, Inc	Growmark, Inc 2427 North State Route 49 Ashkum, IL 60911	Iroquois	IL	13368234	2814000	Iroquis River		1/1/1973
Incobrasa Industries, Ltd.	Incobrasa Industries, Ltd. 540 East Us 24 Gilman, IL 60938	Iroquois	IL	18864973	3000000			
Continental Tire North America, Inc.	Continental Tire North America, Inc. Highway 142 S Mount Vernon, IL 62864	Jefferson	IL	1367000	1000000		1.00	1/1/2073
BASF Corporation	BASF Corporation 2525 South Kensington Road Kankakee, IL 60901	Kankakee	IL	1906910	87000	Drainage Ditch to Gar Creek, kankakee River,	0.00	1/1/1948
Buckeye Partners, LP	Buckeye Partners, LP 275 N 2750 West Road Kankakee, IL 60901	Kankakee	IL	9164196	2273670	Wiley Creek	0.50	1/1/1955
Dow Automotive	Dow Automotive 550 N Hobbie Ave Kankakee, IL 60901	Kankakee	IL	20000	22400	Kankakee River	1.50	
Burlington Northern Railroad	Burlington Northern Railroad 3598 Saluda Road Galesburg, IL 61402	Knox	IL	2859366	2500000	Cedar Creek	1.00	1/1/1984
REG Seneca Facility	REG Seneca Facility 614 Shipyard Road Seneca, IL 61360	La Salle	IL	9105430	1000000	Illinois River		1/8/2008
Utica Terminal, Inc.	Utica Terminal, Inc. 715 North 27th Road, Utica, IL 61373	La Salle	IL	4964575	1018685	Illinois River	0.25	1/1/1980
Zion Energy LLC/Calpine Central LP	Zion Energy LLC/Calpine Central LP 5701 Ninth Street Zion, IL 60099	Lake	IL	1702606	1545946	Drainage Ditch/Des Plaines River		1/4/2002

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Emulsions, Inc	Emulsions, Inc 1105 Adams Street Lawrenceville, IL 62439	Lawrence	IL	2210990	489000	Embaras River	0.50	1/1/1934
Growmark, Inc.	Growmark, Inc. 1222 US Route 30 Amboy, IL 61310	Lee	IL	7598701	2320000	unnamed tributary	0.00	1/1/1954
Archer Daniels Midland Co	Archer Daniels Midland Co 3883 Faries Parkway Decatur, IL 62526	Macon	IL	26624907	5195233	Lake Decatur	0.50	1/1/2019
Archer Daniels Midland Co	Archer Daniels Midland Co 4666 Faries Parkway Decatur, IL 62526	Macon	IL	24294476	3724537	Lake Decatur	0.50	1/1/1948
Buckeye Partners, LP	Buckeye Partners, LP 266 East Shafer Street Forsyth, IL 62535	Macon	IL	8633971	3360000	Drainage Culvert, Stevens Creek,	0.50	1/1/1939
Buckeye Terminals, LLC	Buckeye Terminals, LLC 1195 N. Lincoln Memorial Parkway Harristown, IL 62537	Macon	IL	9031527	3525816	Long Point Slough	0.25	9/9/1940
Norfolk Southern Railway Company	Norfolk Southern Railway Company 1735 E Condit St Decatur, IL 62521	Macon	IL	1159366	1085296	Sewer to Sangamon River	0.25	2/1/1900
Center Point Terminal Company	Center Point Terminal Company 2801 Rock Rd Granite City, IL 62040	Madison	IL	35299782	6259974	Ckain Of Rocks Creek/miss Rvr	0.25	1/1/2063
Green Plains Madison, LLC	Green Plains Madison, LLC 395 Bissel Street Madison, IL 62060	Madison	IL	6167390	1015164	Mississippi River		1/12/2009
Hartford Wood River Terminal, LLC	Hartford Wood River Terminal, LLC 900 North Delmar Avenue Hartford, IL 62048	Madison	IL	34786925	3360000	Missississpi River	0.40	1/1/1950

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Kinder Morgan	Kinder Morgan 1000 BP Lane Hartford, IL 62048	Madison	IL	85834181	10214066	Mississippi River	1.00	1/1/2008
Marathon Pipeline LLC	Marathon Pipeline LLC 700 S 6th St Wood River, IL 62095	Madison	IL	45933444	6269718	Drainage Ditch To Cahokia Creek.		1/1/1937
Omega Partners Hartford, LLC	Omega Partners Hartford, LLC 1402 S. Delmar Hartford, IL 62048	Madison	IL	34542401	10668000	Chahokia Creek, Mississippi	0.50	1/1/1952
Phillips 66 Company	Phillips 66 Company 2150 South Delmar Hartford, IL 62048	Madison	IL	64944385	3395490	Cahokia Canal/mississippi Riv		1/1/1956
Phillips 66 Company	Phillips 66 Company 900 South Central Avenue Roxana, IL 62084	Madison	IL	618900000	12432000	Mississippi River		1/9/1918
The Premcor Refining Group-valero	The Premcor Refining Group-valero 201 East Hawthorne Street Hartford, IL 62048	Madison	IL	59216386	5040000	Mississippi River		1/1/1942
Patoka Terminal	Patoka Terminal 1402 Dickey Pond Road Vernon, IL 62892	Marion	IL	6050000	2940000	Unnamed Creek To North Fork East Fork		1/1/2014
Shell Pipeline Company/dot Facility	Shell Pipeline Company/dot Facility 1249 Dickie Pond Road Rd. Vernon, IL 62892	Marion	IL	5187000	5153400	Carlyle Lake	0.25	1/7/2000
Unocal/dot Facility	Unocal/dot Facility 1505 Dickey Pond Rd Vernon, IL 62892	Marion	IL	20916000	1512000		1.50	
Dynegy Midwest Generation, Inc	Dynegy Midwest Generation, Inc 15260 N. State Route 78 Havana, IL 62644	Mason	IL	725201778	5250000	Illinois River		1/1/2070

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Cargill, Inc.	Cargill, Inc. 115 South Euclid Street Bloomington, IL 61701	Mc Lean	IL	1161285	594289	Sugar Creek	0.15	2/1/1985
Magellan Pipeline Company, LLC	Magellan Pipeline Company, LLC 16490 East 100 North Road Heyworth, IL 61745	Mc Lean	IL	17630826	4642520	Short Point Creek	1.00	1/1/1946
Growmark Inc.	Growmark Inc. 18349 State Highway 29 Petersburg, IL 62675	Menard	IL	9829920	3391130	Cabiness Creek	0.50	1/1/2083
GROWMARK, Inc.	GROWMARK, Inc. 2001 Old Naples Road Meredosia, IL 62665	Morgan	IL	9320000	4607000	Illiois River		1/1/2013
Meredosia Terminal, Inc.	Meredosia Terminal, Inc. Rt. 104 West Of Bridge Meredosia, IL 62665	Morgan	IL	14385570	5413486	Illinois River		1/3/1972
Kinder Morgan	Kinder Morgan 100 East Standard Oil Road Rochelle, IL 61068	Ogle	IL	12732006	2806429	Unnamed Tributary Of Kyte Cree		1/1/1946
Buckeye Terminals, LLC	Buckeye Terminals, LLC 7022 South Cilco Lane Peoria, IL 61607	Peoria	IL	8037708	2688294	Illinois River	0.25	1/1/2055
Evonik Corporation	Evonik Corporation 8300 West Us Route 24 Mapleton, IL 61547	Peoria	IL	31338160	425000	Pond Lily Lake, Illinois River		1/4/1962
Future Environmental	Future Environmental 1927 Darst Street Peoria, IL 61607	Peoria	IL	2054000	500000	Illinois River		14/05/2009
International Paper	International Paper 8401 N University Peoria, IL 61615	Peoria	IL	0	55		1.50	

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Peoria River Terminal, Inc.	Peoria River Terminal, Inc. 2200 South Darst Street Peoria, IL 61607	Peoria	IL	5881220	1470000	Illinois River		1/1/1959
Vantage Corn Processors, LLC	Vantage Corn Processors, LLC Foot Of Edmunds Street Peoria, IL 61602	Peoria	IL	2543139	1049750	Illinois River		1/1/1935
Westway Feed Products LLC	Westway Feed Products LLC 22220 Route 84 North Cordova, IL 61242	Rock Island	IL	1046140	960000	Mississippi River		1/1/1980
Gateway Terminals LLC	Gateway Terminals LLC #4 Pitzman Avenue East Saint Louis, IL 62201	Saint Clair	IL	16645700	4153800	Mississippi River		1/1/2008
Phillips 66 Company	Phillips 66 Company 3300 Mississippi Avenue Route #3 Cahokia, IL 62206	Saint Clair	IL	92084310	8198400	Mississippi River	0.50	1/1/1930
Safety-kleen Systems, Inc	Safety-kleen Systems, Inc 3000 Missouri Avenue East Saint Louis, IL 62205	Saint Clair	IL	1981815	300000	Storm Sewer To Mississippi River		1/1/1977
Scott Air Force Base	Scott Air Force Base Commander, 375th Air Mobility Wing Scott A F B, IL 62225	Saint Clair	IL	1493020	210000	Silver Creek/ash Creek	0.25	1/1/1914
Watco Transloading, LLC	Watco Transloading, LLC #2 Monsanto Avenue Sauget, IL 62201	Saint Clair	IL	1508245	1503000	Mississippi River		5/3/2010
Goodyear Tire & Rubber Co. - Formerly	Goodyear Tire & Rubber Co. - Formerly 3769 Route 20 E Freeport, IL 61032	Stephenson	IL	878300	800000		0.70	
Bp-amoco/facility Idled	Bp-amoco/facility Idled 1101 Wesley Rd East Peoria, IL 61611	Tazewell	IL	2781985	1450000			

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Cargill, Inc.	Cargill, Inc. 1141 Wesley Road Creve Coeur, IL 61610	Tazewell	IL	22000275	11000000	Illinois River		1/1/2007
Heritage Asphalt LLC	Heritage Asphalt LLC 201 S Levee Rd Pekin, IL 61554	Tazewell	IL	4876649	2590956	Illinois River		1/3/2077
Illinois Corn Processing	Illinois Corn Processing 1301 South Front Street Pekin, IL 61554	Tazewell	IL	2742525	100000	Illinois River	0.00	01/01/1867
Pacific Ethanol Pekin, LLC	Pacific Ethanol Pekin, LLC 1300 South Second Street Pekin, IL 61554	Tazewell	IL	3410755	1260000	Illinois River		1/1/1981
Bunge Milling	Bunge Milling 321 E North St Danville, IL 61832	Vermilion	IL	5400117	1586300	Stoney Creek/vermilion River		1/1/2053
Renewable Energy Group	Renewable Energy Group 300 North Anderson Street Danville, IL 61832	Vermilion	IL	16164741	5515394	Stony Creek To Vermilion River		1/1/2008
Countrymark Refining & Logistics, LLC	Countrymark Refining & Logistics, LLC Route 2, near 1600 N and 950 E Cisne, IL 62823	Wayne	IL	1050000	840000			1/1/1940
HWRT Terminal - Norris City, LLC	HWRT Terminal - Norris City, LLC 317 County Road 750N Norris City, IL 62869	White	IL	7813008	2524116	Trib.to Norris City Reservoir	0.20	1/1/1960
Canal Barge Company, Inc.	Canal Barge Company, Inc. 23213 S. Youngs Road Channahon, IL 60410	Will	IL	13020000	7000000	Des Plaines River	0.25	1/1/2084
Exxonmobil Corporation	Exxonmobil Corporation 12909 High Road Lockport, IL 60441	Will	IL	30511835	6361373	Illinois & Michigan Canal		1/1/1972

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Exxonmobil Joliet Refinery	Exxonmobil Joliet Refinery 25915 S Frontage Road Channahon, IL 60410	Will	IL	338464831	22412964	Des Plaines River	0.25	1/8/1972
IMTT - Joliet	IMTT - Joliet 24420 West Durkee Road Channahon, IL 60410	Will	IL	31920000	1260000	Des Plaines River		1/8/1982
Interstate Chemical Co	Interstate Chemical Co 24534 W. Durkee Road Channahon, IL 60410	Will	IL	4229165	4228175	Des Plaines River	0.00	1/1/2003
Loders Croklaan	Loders Croklaan 24708 W. Durkee Channahon, IL 60410	Will	IL	11501270	354841	Des Plaines River	0.25	1/1/2070
Materials Service Corp Not An Frp	Materials Service Corp Not An Frp 900 E. 9th Street Lockport, IL 60441	Will	IL	28000	40000			
Oiltanking, Inc	Oiltanking, Inc 27100 South Frontage Road Channahon, IL 60410	Will	IL	1027915	1026400	Des Plaines River	0.00	1/1/2017
Stepan Co.	Stepan Co. 22500 W Millsdale Rd Elwood, IL 60421	Will	IL	4371089	2052316	Des Plaines River		1/1/1957
Unocal Pipeline Company-dot Facility Onl	Unocal Pipeline Company-dot Facility Onl 18401 South Wolf Road P.o. Box 630 Mokena, IL 60448	Will	IL	36960000	2100000		1.50	
Zenith Energy Terminal	Zenith Energy Terminal 1035 W. Laraway Road Joliet, IL 60436	Will	IL	32398678	6300000	Des Plaines River	0.00	1/1/2015
Buckeye Terminals LLC	Buckeye Terminals LLC 1511 South Meridian Road Rockford, IL 61102	Winnebago	IL	8921396	3104598	South Fork Kent Creek	0.20	1/1/1948

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
MPLX Terminals LLC	MPLX Terminals LLC 7312 Cunningham Road Rockford, IL 61102	Winnebago	IL	13756289	3852828	South Fork Kent Creek	0.25	1/1/1977
Rock Valley Oil & Chemical Co.	Rock Valley Oil & Chemical Co. 1911 Windsor Rd Loves Park, IL 61111	Winnebago	IL	292000	19000	Rock River	1.50	
United Parcel Service	United Parcel Service 881 Airport Drive Rockford, IL 61109	Winnebago	IL	1995200	840000	Rock River	0.50	1/5/1998
Bunge North America (east) Inc.	Bunge North America (east) Inc. 1200 North 2nd Street Decatur, IN 46733	Adams	IN	25068580	3000000	St. Mary's River	0.25	1/1/1937
BF Goodrich Tire Manufacturing	BF Goodrich Tire Manufacturing 18906 Old 24 Woodburn, IN 46797	Allen	IN	9350759	2031408	Maumee River And Marsh Ditch		1/1/1961
Gladieux Refinery, Inc.	Gladieux Refinery, Inc. 4133 New Haven Fort Wayne, IN 46803	Allen	IN	23870100	2861100	Potw	0.50	1/1/2046
National Oil & Gas	National Oil & Gas 4149 Goshen Road Fort Wayne, IN 46818	Allen	IN	3204165	1092000	Ditch-bercot Drain-spy Creek		1/1/1996
D-A Lubricant Co	D-A Lubricant Co 801 Edwards Drive Lebanon, IN 46052	Boone	IN	2557630	50000	Ditch-prairie Creek-sugar Cree		1/1/2012
The Andersons Marathon Holdings, LLC	The Andersons Marathon Holdings, LLC 3389 West CR 300 South Logansport, IN 46947	Cass	IN	11014669	7500000	Keeps Creek, to Wabash River	0.10	1/1/2007
Idemitsu Lubricants America Corporation	Idemitsu Lubricants America Corporation 701 Port Road Jeffersonville, IN 47130	Clark	IN	2381020	125000	Storm Sewer To Municipality. Lake Cassange Creek to Ohio		1/1/1992

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Marathon Petroleum LLC	Marathon Petroleum LLC 214 Center St Clarksville, IN 47129	Clark	IN	8184834	3488940	Ohio River		1/1/2049
Tanco Clark Maritime LLC	Tanco Clark Maritime LLC 5144 Utica Pike Jeffersonville, IN 47130	Clark	IN	10597912	3436569	Ohio River	0.13	1/1/2000
Archer Daniels Midland-frankfort, In	Archer Daniels Midland-frankfort, In 2191 West County Road 0 N/s Frankfort, IN 46041	Clinton	IN	5946222	4218705	Wildcat Creek		1/1/1985
Benchmark Distribution Terminals LLC	Benchmark Distribution Terminals LLC 2670 U.s. 6 Waterloo, IN 46793	De Kalb	IN	12678565	3440557	Storm Water Discharge		1/1/2077
Indiana Michigan Power	Indiana Michigan Power 312 I & M St Lawrenceburg, IN 47025	Dearborn	IN	849200	128000	Ohio River		
Buckeye Terminals LLC	Buckeye Terminals LLC 2000 E State Road 28 Muncie, IN 47302	Delaware	IN	7894208	4620000	Mud Creek	1.10	1/1/1938
MPLX Terminals LLC	MPLX Terminals LLC 2100 East State Road 28 Muncie, IN 47303	Delaware	IN	10176626	2820089	Drainage Ditch to Mud Creek		1/1/1949
Nofolk Southern Railway Company	Nofolk Southern Railway Company 2600 West Lusher Avenue Elkhart, IN 46515	Elkhart	IN	2919021	1017700	Clark Run Creek & Lake Herring/st. Joseph River	0.50	1/1/1958
Transmontaigne Terminaling, Inc.	Transmontaigne Terminaling, Inc. 20 Jackson St New Albany, IN 47150	Floyd	IN	9457812	1061550	Ohio River	0.25	1/1/2049

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Enterprise Refined Products	Enterprise Refined Products 3217 S 950 E Oakland City, IN 47660	Gibson	IN	8053500	2814000	Ditch To Keg Creek To Patoka R		1/1/1958
Countrymark Cooperative, Llp	Countrymark Coopoerative, Llp 8249 W. State Road 54 Switz City, IN 47465	Greene	IN	9636545	2310000	Road Ditch To Buck Creek	0.50	19/08/2053
Riverside Petroleum Indiana, LLC	Riverside Petroleum Indiana, LLC 2431 South County Road 275 West Bloomfield, IN 47424	Greene	IN	3287370	2632476	White River	503.00	1/1/1969
Countrymark Coopoerative, Llp	Countrymark Coopoerative, Llp 17710 Mule Barn Road Jolietville, IN 46074	Hamilton	IN	22589921	4033218	Intermit Stream To Eagle Creek	0.25	19/08/1953
CSX Transportation, Inc.	CSX Transportation, Inc. 491 South County Road 800 East Avon, IN 46123	Hendricks	IN	4075307	1029300	Salem Creek	0.10	1/1/1959
FCA US LLC	FCA US LLC 2401 S. Reed Rd. Kokomo, IN 46904	Howard	IN	2029994	160000	Kokomo Creek		1/1/1955
Citgo Petroleum Corporation	Citgo Petroleum Corporation 4393 North Meridian Road Huntington, IN 46750	Huntington	IN	8975992	2977322	Little Wabash River	0.60	1/1/1963
Gladieux Trading & Marketing Co., L.p.	Gladieux Trading & Marketing Co., L.p. 4757 N Us Hwy 24 East Huntington, IN 46750	Huntington	IN	32404065	3109355	Creek, Little River, Little Wabash River		1/1/1957
Lassus Brothers Oil Terminal	Lassus Brothers Oil Terminal 4413 North Meridian Road Huntington, IN 46750	Huntington	IN	6739631	2286060	Drain-weber Creek-lake Clare		1/1/1963
MPLX Terminals LLC	MPLX Terminals LLC 4648 North Meridian Road Huntington, IN 46750	Huntington	IN	7882472	1786057	Little River	1.00	11/1/1956

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Sunoco Partners Marketing & Terminals Lp	Sunoco Partners Marketing & Terminals Lp 4691 N Meridian St Huntington, IN 46750	Huntington	IN	8657220	1481844	Claire Lake	0.50	1/1/1956
HWRT Terminal, LLC	HWRT Terminal, LLC 9780 Highway 31 North Seymour, IN 47274	Jackson	IN	2424850	450000	Mutton Creek	0.25	1/1/1965
Heritage Asphalt, LLC	Heritage Asphalt, LLC 2820 E Durbin Rd Warsaw, IN 46580	Kosciusko	IN	6674293	4219783	Winona Lake	0.30	1/1/1975
Louis Dreyfus Agricultural Industries, LLC	Louis Dreyfus Agricultural Industries, LLC 7344 South State Road 15 Claypool, IN 46510	Kosciusko	IN	10776384	1635000	Caldwell lake, Sloan Adams Drain, Palestine Lake,		1/1/2007
Arcelormittal Steel, Inc.	Arcelormittal Steel, Inc. 3001 Dickey Road East Chicago, IN 46312	Lake	IN	588441	70000	Indiana Harbor Ship Channel	0.25	1/1/2029
Arcelormittal, Inc.	Arcelormittal, Inc. 3210 Watling St East Chicago, IN 46312	Lake	IN	1511364	120000	Indiana Harbor Ship Canal	0.25	1/1/2000
BP Products North America, Inc.	BP Products North America, Inc. 2815 Indianapolis Boulevard Whiting, IN 46394	Lake	IN	600743257	25379046	Indiana Harbor Canal & Lake Mi		01/01/1889
Buckeye Partners LP	Buckeye Partners LP 400 East Columbus Drive East Chicago, IN 46312	Lake	IN	84353789	11280402	Indiana Harbor Canal		1/1/1939
Buckeye Terminals, LLC	Buckeye Terminals, LLC 2400 Michigan Street Hammond, IN 46320	Lake	IN	71181442	10659180	Grand Calumet River	0.25	1/1/1929
Citgo Petroleum Corporation	Citgo Petroleum Corporation 2500 East Chicago Avenue East Chicago, IN 46312	Lake	IN	179570000	5880000	Lake Michigan	0.25	1/1/1928

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Eco Services Operations LLC	Eco Services Operations LLC 2000 Michigan Street Hammond, IN 46920	Lake	IN	1843919	814941	Grand Calumet River		1/1/1929
Enbridge Energy Company	Enbridge Energy Company Central Avenue And Division Street Scherverville, IN 46375	Lake	IN	37800000	4620000			1/1/2058
Exxon Mobil Oil Corporation	Exxon Mobil Oil Corporation 1527 141st Street Hammond, IN 46320	Lake	IN	28715083	5029080	Indiana Harbor Ship Canal	0.30	1/1/1951
Mobil Oil Corporation/sold Norco Pipelin	Mobil Oil Corporation/sold Norco Pipelin 3821 Indianapolis Boulevard East Chicago, IN 46312	Lake	IN	46281488	4747488	In Harbor Ship Canal/lake Mi	0.25	1/1/1926
MPLX Terminals, LLC	MPLX Terminals, LLC 4206 Columbia Avenue Hammond, IN 46327	Lake	IN	49816497	8755778	Lake George	0.25	1/1/1965
Premcor Pipeline Company	Premcor Pipeline Company 1020 141st Street Hammond, IN 46320	Lake	IN	33871688	8400000	Grand Calumet River	0.50	1/1/1958
SKORC Oil Recovery Company	SKORC Oil Recovery Company 601 Riley Rd East Chicago, IN 46312	Lake	IN	25078551	4000000	Lake George Canal		5/4/1991
United States Steel	United States Steel One North Broadway Gary, IN 46402	Lake	IN	2500024000	4000000	Lake Mi, Grand Calulmet River	0.24	1/1/1906
Wolf Lake Terminals, Inc.	Wolf Lake Terminals, Inc. 3200 Sheffield Ave Hammond, IN 46320	Lake	IN	17607551	420000	Wolf Lake		1/1/1950
Asphalt Materials	Asphalt Materials 4902 W 86th St Indianapolis, IN 46268	Marion	IN	18924573	11945353	Oil Creek	0.25	1/1/2059

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Buckeye Terminals LLC	Buckeye Terminals LLC 10470 East County Road 300n Clermont, IN 46234	Marion	IN	11760000	3360000	Eagle Creek	1.00	1/1/2063
Buckeye Terminals LLC	Buckeye Terminals LLC 3230 North Raceway Road Indianapolis, IN 46234	Marion	IN	17691392	3422412	Clermont Creek		1/1/1954
Buckeye Terminals LLC	Buckeye Terminals LLC 5405 W 96th St Indianapolis, IN 46268	Marion	IN	41734190	4673676	Eagle Creek Reservoir	0.50	1/1/1938
Buckeye Terminals, LLC	Buckeye Terminals, LLC 10700 E. County Road 300 North Indianapolis, IN 46234	Marion	IN	8287642	3187380	Mario Creek & Eagle Creek	0.50	1/1/1966
Bunge North America (East) LLC	Bunge North America (East) LLC 1102 W 18th St Indianapolis, IN 46202	Marion	IN	4007185	2000000	White River	0.75	1/1/2061
Fedex Express Corporation	Fedex Express Corporation 6648 South Perimeter Road Indianapolis, IN 46241	Marion	IN	44726425	750000	Seerley Creek Basin		1/12/2007
Heritage - Crystal Clean, LLC	Heritage - Crystal Clean, LLC 3970 West 10th Street Indianapolis, IN 46222	Marion	IN	7921076	5937991			1/7/1999
Indianapolis Power And Light Company	Indianapolis Power And Light Company 3700 South Harding Street Indianapolis, IN 46217	Marion	IN	56032556	3720108	White River		1/1/1931
Indianapolis Int'l Airport	Indianapolis Int'l Airport 2050 S. Hoffman Indianapolis, IN 46241	Marion	IN	1897028	619500	Sterling Run Channel	0.01	1/1/2008
Kinder Morgan	Kinder Morgan 2500 North Tibbs Avenue Indianapolis, IN 46222	Marion	IN	19345807	3465687	Little Eagle Creek- To Eagle Creek, To White		1/1/1941

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Marathon Petroleum LLC	Marathon Petroleum LLC 255 N Belmont Ave Indianapolis, IN 46222	Marion	IN	5181899	1017590	Dollar Hide Creek	0.25	1/1/1989
Marathon Petroleum Co., LLC	Marathon Petroleum Co., LLC 10833 East Country Road 300 North Clermont, IN 46234	Marion	IN	10724435	2172030	Mario Creek		1/1/1961
Metalwoking Lubricants Co	Metalwoking Lubricants Co 1509 South Senate Avenue Indianapolis, IN 46225	Marion	IN	1842921	92000	White River		1/1/1976
MPLX Terminals LLC	MPLX Terminals LLC 1304 Olin Avenue Indianapolis, IN 46222	Marion	IN	22178821	3412308	Little Eagle Creek	0.25	1/1/1945
MPLX Terminals LLC	MPLX Terminals LLC 4955 Robinson Road Indianapolis, IN 46268	Marion	IN	37640083	14766035	ittle Eagle Creek & Oil Creek	0.25	1/1/1941
Pinnacle Oil, Inc	Pinnacle Oil, Inc 5009 West 81st Street Indianapolis, IN 46268	Marion	IN	2514700	60914	Little Eagle Creek		1/3/1987
Rolls-royce Corporation	Rolls-royce Corporation 2355 S Tibbs Street Indianapolis, IN 46241	Marion	IN	1055261	420000	Eagel Creek	0.75	1/1/1942
Us Oil	Us Oil 3350 N Raceway Rd Indianapolis, IN 46234	Marion	IN	17992877	2284787	Marion Creek To Eagle Creek	0.20	1/1/1953
Countrymark Cooperative Llp	Countrymark Cooperative Llp 1765 W. Logansport Road Peru, IN 46970	Miami	IN	11879121	2310000	Road Ditch To Lewis Little Dit	0.25	9/8/1953
Grissom Air Reserve Base	Grissom Air Reserve Base 434 Msg/cev Grissom Air Force Base, IN 46971	Miami	IN	2074176	552300	Mcdowell Ditch/Wabash River		1/1/1957
Valero Linden Plant	Valero Linden Plant 203 W 1100 North Linden, IN 47955	Montgomery	IN	3213080	1464814	John Gobin Ditch #2		2/8/2007

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Indianapolis Power & Lt	Indianapolis Power & Lt 6925 North State Road 57 Petersburg, IN 47567	Pike	IN	1277787	300000	White River		1/1/1967
Arcelormittal Burns Harbor, LLC	Arcelormittal Burns Harbor, LLC 250 West Us Highway 12 Burns Harbor, IN 46302	Porter	IN	49428000	500000	Lake Michigan	0.50	31/12/1963
Frick Services, Inc Liquid Terminal	Frick Services, Inc Liquid Terminal 570 East Boundary Rd, Port Of Indiana Portage, IN 46368	Porter	IN	5560800	1900000	East Harbor Arm		1/1/2008
Tanco Terminals, Inc.	Tanco Terminals, Inc. 400 Boundary Road Portage, IN 46368	Porter	IN	12016200	2730000	Lake Michigan		1/1/2078
Consolidated Grain And Barge Co.	Consolidated Grain And Barge Co. 2781 Bluff Rd. Mount Vernon, IN 47620	Posey	IN	2233330	447000	Ohio River	0.00	1/10/1997
Countrymark Cooperative, Inc.	Countrymark Cooperative, Inc. 1200 Refinery Rd Mount Vernon, IN 47620	Posey	IN	95814780	4611768	Mill Creek	0.50	1/1/1940
Green Plains Mount Vernon	Green Plains Mount Vernon 8999 West Franklin Road Mount Vernon, IN 47620	Posey	IN	6146542	1015164	Ohio River		26/10/2009
Marathon Petroleum LLC	Marathon Petroleum LLC 1200 Old Highway 69 South Mount Vernon, IN 47620	Posey	IN	16103952	6345201	Ohio River	0.25	1/1/1953
MPLX Terminals, LLC	MPLX Terminals, LLC 129 Barter Street Mount Vernon, IN 47620	Posey	IN	26510175	3391158	Ohio River		1/1/1940
Valero	Valero 7201 Port Road Mount Vernon, IN 47620	Posey	IN	3008250	1406000	Mcfadden Creek-ohio River		1/4/2011

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Buckeye Terminal, LLC	Buckeye Terminal, LLC 12694 Adams Road Granger, IN 46530	Saint Joseph	IN	11195531	2781618	Juday Creek	0.50	1/1/1953
Buckeye Terminals, LLC	Buckeye Terminals, LLC 20630 West Ireland Road South Bend, IN 46614	Saint Joseph	IN	8690956	2299962	Bowen Creek	0.25	1/1/1986
Bunge North America (east) LLC	Bunge North America (east) LLC 700 North Rangeline Road Morristown, IN 46161	Shelby	IN	7362355	304508	Unnamed Creek To Blue River And The		1/1/1996
Integrity Biofuels	Integrity Biofuels 780 E. Industrial Drive Morristown, IN 46161	Shelby	IN	2002490	1500000	Ditch-Prairie Branch Creek-Big Blue River	2100.00	1/8/2006
American Electric Power	American Electric Power 2791 North U.S. Hwy 231 Rockport, IN 47635	Spencer	IN	4486916	2000000	Ohio River		1/1/2083
Cargill, Inc.	Cargill, Inc. 1502 Wabash Ave Lafayette, IN 47902	Tippecanoe	IN	1757812	1370000	Wabash River	0.25	1/1/1940
MPLX Terminals LLC	MPLX Terminals LLC 2500 Broadway Evansville, IN 47712	Vanderburgh	IN	5345927	1639368	Ohio River		1/1/1948
Transmontaigne Terminaling Inc.	Transmontaigne Terminaling Inc. 2630 Broadway Evansville, IN 47712	Vanderburgh	IN	10128930	1370250	Ohio River	0.25	1/1/1954
Laketon Refining Corporation	Laketon Refining Corporation 2784 W. Lukens Lake Road Laketon, IN 46943	Wabash	IN	18232692	5067871	Round Lake/Eel creek/flack Creek	0.25	01/01/1890
Alcoa	Alcoa 4000 W State Road 66 Newburgh, IN 47629	Warrick	IN	3919617	358750	Ohio River		1/5/1960

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Valero Bluffton Plant	Valero Bluffton Plant 1331 S. Adams Street Bluffton, IN 46714	Wells	IN	3245078	1484820	Schwartz Ditch		7/12/2008
C. Stoddard & Sons, Inc	C. Stoddard & Sons, Inc 3456 12th Street Wayland, MI 49348	Allegan	MI	1622335	400000	Rabbit River	3804.00	1/1/1951
Bit-mat Products Of Michigan, Inc.	Bit-mat Products Of Michigan, Inc. 401 Tiernan Road Bay City, MI 48706	Bay	MI	11500000	4217657	Saginaw River	0.25	1/11/2001
Bkep Materials, LLC	Bkep Materials, LLC 309 Woodside Avenue Essexville, MI 48732	Bay	MI	7316643	2284266	Saginaw River		1/1/2029
Consumer Energy Co.,	Consumer Energy Co., 2680 Weadock Hwy Essexville, MI 48732	Bay	MI	36207321	8641158	Saginaw River/saginaw Bay	0.24	1/1/1972
Koch Materials Company/facility Idled	Koch Materials Company/facility Idled 318 Atlantic St Bay City, MI 48708	Bay	MI	1211840	230000	Saginaw River	0.30	1/1/2054
Marathon Petroleum LLC	Marathon Petroleum LLC 5011 Wilder Road Bay City, MI 48706	Bay	MI	13150830	2268000	Sauginaw River/sauginaw Bay	0.30	1/1/2045
MPLX Terminals LLC	MPLX Terminals LLC 1806 Marquette St. Bay City, MI 48706	Bay	MI	18480765	4067979	Saginaw River		1/1/1945
Buckeye Terminals, LLC	Buckeye Terminals, LLC 2303 South 3rd Street Niles, MI 49120	Berrien	MI	17798748	3081708	St. Joseph River	0.50	1/1/1954
Buckeye Terminals, LLC	Buckeye Terminals, LLC 2150 South Third Street Niles, MI 49120	Berrien	MI	5291055	1470000	Intermittent Stream to St. Joseph River		1/1/1970

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Citgo Petroleum Corporation	Citgo Petroleum Corporation 2233 South Third Street Niles, MI 49120	Berrien	MI	11425668	5040000	St. Joseph River	0.50	11/1/1954
MPLX Terminals, LLC	MPLX Terminals, LLC 2216 South Third Street Niles, MI 49120	Berrien	MI	26557092	4391090	St. Joseph River	1.00	1/1/2061
Buckeye Terminals LLC	Buckeye Terminals LLC 12451 US 27 South Marshall, MI 49068	Calhoun	MI	11714581	3422753	Talmadge Creek	0.50	1/1/1958
The Andersons Marathon Holdings, LLC	The Andersons Marathon Holdings, LLC 26250 B Drive N Albion, MI 49224	Calhoun	MI	3297587	1500000	Kalamazoo River	0.10	1/1/2006
US Venture Inc.	US Venture Inc. 311 Coast Guard Dr Cheboygan, MI 49721	Cheboygan	MI	6887674	2107182	Cheboygan River		1/1/1955
MPLX Terminals, LLC	MPLX Terminals, LLC 6300 Grand River Ave Lansing, MI 48906	Clinton	MI	7404996	3178032	Watson & Summers Drain	0.25	1/1/1958
Construction Resource Management, Inc.	Construction Resource Management, Inc. 202 Delta Avenue Gladstone, MI 49837	Delta	MI	12901200	3000000	Lake Michigan		1/1/1950
Escabana Paper Company	Escabana Paper Company 7100 County 426 M.5 Road Escanaba, MI 49829	Delta	MI	1022000	1000000	Escabana River	0.25	1/1/2012
Lansing Asphalt Terminal Co. (LATCO)	Lansing Asphalt Terminal Co. (LATCO) 3900 S. Creyts Road Lansing, MI 48917	Eaton	MI	18030380	3050208	Carrier Creek		1/1/2010
Buckeye Terminals LLC	Buckeye Terminals LLC G-5340 North Dort Highway Flint, MI 48505	Genesee	MI	11612777	2768784	Mott Lake	0.50	1/1/1959

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Lockhart Chemical Company	Lockhart Chemical Company 4302 James P. Cole Boulevard Flint, MI 48505	Genesee	MI	1488500	28000	Flint River	0.50	1/1/2072
MPLX Terminals LLC	MPLX Terminals LLC G6065 North Dort Highway Flint, MI 48458	Genesee	MI	9196958	4799783	Cornwell Drain to Flint River	0.25	1/1/1958
Marathon Petroleum LLC	Marathon Petroleum LLC 13510 South West Bayshore Drive Traverse City, MI 49684	Grand Traverse	MI	7647858	2335956	Grand Traverse Bay	0.25	1/1/1954
Michigan Paving & Materials Co	Michigan Paving & Materials Co 1950 Williams Street Alma, MI 48801	Gratiot	MI	16271286	5480000	Pine River		1/1/1994
ZFS Ithaca, LLC	ZFS Ithaca, LLC 1266 East Washington Road Ithaca, MI 48847	Gratiot	MI	2122431	500000	Brady Creek	2991.00	1/2/2020
Isle Royale National Park	Isle Royale National Park 800 East Lake Shore Drive Houghton, MI 49931	Houghton	MI	52780	20000	Lake Superior		1/1/1994
Isle Royale National Park	Isle Royale National Park 800 East Lake Shore Drive Houghton, MI 49931	Houghton	MI	52740	20000	Lake Superior		1/1/2078
Isle Royale National Park	Isle Royale National Park 800 East Lakeshore Drive Houghton, MI 49931	Houghton	MI	60425	20000	Lake Superior		1/1/2078
Buckeye Terminal LLC	Buckeye Terminal LLC 6777 Brooklyn Rd Napoleon, MI 49261	Jackson	MI	8659408	2049600	Unnamed Stream to Raisin River	0.50	1/1/1953
Buckeye Terminals LLC	Buckeye Terminals LLC 2103 Morrill Road Jackson, MI 49201	Jackson	MI	3695916	1244250	Grand River	1.50	1/1/2063
Citgo Petroleum Corporation	Citgo Petroleum Corporation 2001 Morrill Rd Jackson, MI 49201	Jackson	MI	9463900	2310000	Grand River	1.50	1/1/1954

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
MPLX Terminals, LLC	MPLX Terminals, LLC 2090 Morrill Road Jackson, MI 49201	Jackson	MI	12911708	2412939	Rives Blackman Drain To Grand	1.00	1/1/1970
Selfridge Air National Guard Base	Selfridge Air National Guard Base 29423 George Avenue, Buidling 303 Selfridge Angb, MI 48045	Macomb	MI	1436969	902710	Lake St. Claire		1/1/1917
Michigan Asphalt Terminal Company	Michigan Asphalt Terminal Company 1735 State Street Manistee, MI 49660	Manistee	MI	8087880	2200000	Manistee Lake		1/1/2009
Dow Corning Corp	Dow Corning Corp 3091 S. Saginaw Road Midland, MI 48640	Midland	MI	7110988	60000	Lingle Drain To Tittabawassee River		1/1/1943
Detroit Edison	Detroit Edison 6400 N Dixie Hwy Newport, MI 48166	Monroe	MI	2792097	845970	Lake Erie	0.00	1/1/1970
DTE Electric Company	DTE Electric Company 3500 E. Front Street Monroe, MI 48161	Monroe	MI	997735	449000	Lake Erie	0.00	
Fiat Chrysler Automobiles US, LLC	Fiat Chrysler Automobiles US, LLC 5800 North Ann Arbor Road Dundee, MI 48131	Monroe	MI	1286404	122000	Drain Leads To Macon Creek, River Raisin,	1700.00	1/1/2004
Marathon Pipe Line	Marathon Pipe Line 2185 Samaria Road Temperance, MI 48182	Monroe	MI	25261016	3998652	North Branch Cone Creek, Cone		1/1/1930
Michigan Paving & Materials Co	Michigan Paving & Materials Co 3125 East Front St. Monroe, MI 48161	Monroe	MI	58000000	8400000	River Raisen To Lake Erie		1/1/1990
MPLX Terminals LLC	MPLX Terminals LLC 3005 Holton Rd Muskegon, MI 49445	Muskegon	MI	18518104	6824616	Bear Creek	0.25	1/1/1966

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Delta Fuels Of Michigan	Delta Fuels Of Michigan 40600 Grand River Avenue Novi, MI 48375	Oakland	MI	14013884	2816060	Storm Drain - Ingersoll Creek		1/1/2019
Buckeye Terminals LLC	Buckeye Terminals LLC 17806 N Shore Drive Ferrysburg, MI 49409	Ottawa	MI	12635137	3990000	Grand River/lake Michigan	0.25	1/1/1952
Citgo Petroleum Corporation	Citgo Petroleum Corporation 524 Third St Ferrysburg, MI 49409	Ottawa	MI	7654178	2310294	Grand River	0.50	1/1/1953
Holland Terminal	Holland Terminal 630 Ottawa Avenue Holland, MI 49423	Ottawa	MI	11229571	4060500	Storm Drain Lake Macatawa,	0.00	1/1/1946
Zeeland Farm Services, Inc	Zeeland Farm Services, Inc 2468 84th Avenue Zeeland, MI 49464	Ottawa	MI	1865550	183376	Blck Creek- Macatawa River- Macatawa Lake	5018.00	1/1/1996
US Oil Rogers City Terminal	US Oil Rogers City Terminal 1035 Calcite Road Rogers City, MI 49779	Presque Isle	MI	3364195	3360000	Frog Pond		1/9/2000
General Motors Powetrain	General Motors Powetrain 1629 N Washington Ave Saginaw, MI 48601	Saginaw	MI	0				
DTE Electric Company	DTE Electric Company 4505 King Road East China, MI 48054	Saint Clair	MI	13211800	1200000	St. Claire River		1/1/2053
Sunoco Partners Marketing & Terminals Lp	Sunoco Partners Marketing & Terminals Lp 4004 W Main St, M-21 West Owosso, MI 48867	Shiawassee	MI	9806988	1680000	Maple River	0.50	1/1/1954
Gm Pt Willow Run Plant	Gm Pt Willow Run Plant Mc 481-700-130-2930 Ecorse Rd.po Box 935 Ypsilanti, MI 48198	Washtenaw	MI	2318079	180000	Willow Run Creek/tyler Pond		1/1/2054

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Buckeye Terminal, LLC	Buckeye Terminal, LLC 205 Marion Ave River Rouge, MI 48218	Wayne	MI	70104131	3686634	River Rouge		1/1/1910
Buckeye Terminal, LLC	Buckeye Terminal, LLC 24801 Ecorse Rd Taylor, MI 48180	Wayne	MI	11580906	2351916	Ecorse Creek	1.00	1/1/1950
Buckeye Terminals LLC	Buckeye Terminals LLC 700 South Deacon Street Detroit, MI 48217	Wayne	MI	24456829	4669543	River Rouge	0.25	1/3/1977
Buckeye Terminals LLC	Buckeye Terminals LLC 8503 South Inkster Road Taylor, MI 48180	Wayne	MI	10858318	3380160	Storm Sewer To Ecorse River	0.50	1/1/1954
Buckeye Terminals, LLC	Buckeye Terminals, LLC 20755 West Road Woodhaven, MI 48183	Wayne	MI	57543693	7423290	Detroit River	0.25	1/1/1929
Buckeye Terminals, LLC	Buckeye Terminals, LLC 24501 Ecorse Rd Taylor, MI 48180	Wayne	MI	12436772	4009884	Ecorse Creek Outfall/detroit R	1.50	1/1/1950
EES Coke Battery, LLC	EES Coke Battery, LLC 1400 Zug Island Rd Detroit, MI 48209	Wayne	MI	1959354	710848	Detroit River		1/1/1992
Envirosolids, LLC	Envirosolids, LLC 6011 Wyoming Road Dearborn, MI 48126	Wayne	MI	10792031	3418913	Storm Sewer To Rouge River		18/03/2002
Equilon Enterprises Llc/dot Facility	Equilon Enterprises Llc/dot Facility T8432 Wick Road Romulus, MI 48174	Wayne	MI	4377000	2814000	Godfrey Drain To Ecorse River		1/1/2064
Great Lakes Aggregates	Great Lakes Aggregates 800 Marion Avenue River Rouge, MI 48218	Wayne	MI	1040200	1000000	River Rouge/detroit River		8/2/2002

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Great Lakes Petroleum Terminal, LLC	Great Lakes Petroleum Terminal, LLC 12500 Stocker Rd Detroit, MI 48217	Wayne	MI	24820536	5042281	South Bank Rouge River		1/1/1947
Houghton International Inc	Houghton International Inc 9100 Freeland Avenue Detroit, MI 48228	Wayne	MI	2554237	36000		2.00	1/1/1937
Marathon Petroleum Company LLC	Marathon Petroleum Company LLC 1300 S Fort St Detroit, MI 48217	Wayne	MI	209098900	9156000	Rouge River	0.25	1/1/1930
Michigan Marine Terminal	Michigan Marine Terminal P.o. Box 18247, 225 Marion River Rouge, MI 48218	Wayne	MI	29355964	4120121	Rouge River		1/1/2087
Mistersky Tank And Dock Facility	Mistersky Tank And Dock Facility 5431 West Jefferson Detroit, MI 48209	Wayne	MI	19094704	3621618	Detroit River		1/1/2007
MPLX Terminals, LLC	MPLX Terminals, LLC 28001 Citrin Dr Romulus, MI 48174	Wayne	MI	11325211	2354970	Douglas & Kelly Drains	0.10	1/1/1962
North West Airlines Inc./spcc Only	North West Airlines Inc./spcc Only 1 Detroit Metro Airport, Bldg. 722 Detroit, MI 48242	Wayne	MI	75470	1800			1/1/2086
Pennzoil-quaker State Db-sopus Products	Pennzoil-quaker State Db-sopus Products 245 Marion Ave River Rouge, MI 48218	Wayne	MI	8886782	1015224	Rouge River	0.01	1/1/1961
Sterling Services, Ltd.	Sterling Services, Ltd. 1530 Commor Street Hamtramck, MI 48212	Wayne	MI	2552051	498912	Storm Sewer		1/1/2046
Sunoco Logistics Marketing & Terminals	Sunoco Logistics Marketing & Terminals 29120 Wick Rd Romulus, MI 48174	Wayne	MI	15075236	4993050	Godfrey Drain	0.25	1/1/1957

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Sunoco Partners Marketing & Terminals Lp	Sunoco Partners Marketing & Terminals Lp 500 S Dix Ave Detroit, MI 48217	Wayne	MI	3200444	1299158	Rouge River	0.50	1/1/1947
Swissport Sa Fuel Services, LLC	Swissport Sa Fuel Services, LLC West Service Rd.building 722-dtw Romulus, MI 48174	Wayne	MI	8934925	2520000	Frank & Poet Drain	0.25	1/1/1987
Waterfront Petroleum Terminal	Waterfront Petroleum Terminal 1071 Miller Rd Dearborn, MI 48120	Wayne	MI	3903158	951840	Rouge River		1/1/1985
Burlington Northern & Santafe Railway Co	Burlington Northern & Santafe Railway Co 80 44th Ave Minneapolis, MN 55421	Anoka	MN	2432359	2282000	Mississippi River	0.50	1/1/1947
Archer Daniels Midland Company	Archer Daniels Midland Company 2019 3rd Avenue Mankato, MN 56001	Blue Earth	MN	11677473	4060918	Minnesota River	1.00	1/1/1946
Chs Oilseed Processing	Chs Oilseed Processing 2020 S Riverfront Dr Mankato, MN 56002	Blue Earth	MN	11582281	801767	Minnesota River And Blue Earth River		
Magellan Pipeline Company, LLC	Magellan Pipeline Company, LLC 55199 State Highway 68 Mankato, MN 56001	Blue Earth	MN	19246668	1697808	Minneopa Creek	0.25	1/1/1937
Magellan Pipeline Co, LP	Magellan Pipeline Co, LP 10 North Broadway Wrenshall, MN 55797	Carlton	MN	19072626	4060644	Silver Creek/st. Louis River	0.75	1/1/1981
Bongards Creameries	Bongards Creameries 13200 County Rd 51 Norwood, MN 55368	Carver	MN	2430000	2315000	Ditch Leading To Winkler Lake	1.00	1/1/1908

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Cargill Barnesville	Cargill Barnesville 16916 130th Avenue Barnesville, MN 56514	Clay	MN	10300945	8240000	Stony Creek	0.42	1/1/2006
Nustar Pipeline Operating Partnership	Nustar Pipeline Operating Partnership 1101 Southeast Main Avenue Moorhead, MN 56560	Clay	MN	20902848	3780000	Red River	1.00	1/1/1946
Chs Lubricants Plant	Chs Lubricants Plant 11600 Courthouse Blvd Inver Grove Heights, MN 55077	Dakota	MN	3505600	500000	Mississippi River	0.25	1/1/2065
Flint Hill Resources	Flint Hill Resources 12555 Clark Road Rosemount, MN 55068	Dakota	MN	385097140	22127600	Mississippi River		1/1/1955
Hardrives, Inc	Hardrives, Inc 15900 158th Street Rosemount, MN 55068	Dakota	MN	2825245	1185000			30/01/2017
McNamara Contracting, Inc.	McNamara Contracting, Inc. 16387 Chippendale Avenue Rosemount, MN 55068	Dakota	MN	1858845	1762500			22/01/2018
Magellan Pipeline Company, LLC	Magellan Pipeline Company, LLC 709 Third Avenue West Alexandria, MN 56308	Douglas	MN	27544697	2284128	Lake Agnes	0.50	1/1/1946
Kinder Morgan	Kinder Morgan 14514 State Highway 16 Spring Valley, MN 55975	Fillmore	MN	10383193	2628963	Spring Valley Creek	0.75	1/1/1948
REG - Albert Lea, LLC	REG - Albert Lea, LLC 15200 780th Avenue Albert Lea, MN 56007	Freeborn	MN	3996550	730000	Cnty Ditch 16-shell Rock River		1/4/2005
Archer Daniels Midland	Archer Daniels Midland 126 Lagrange Street Red Wing, MN 55066	Goodhue	MN	5773356	2942572	Mississippi River	0.25	1/1/2002

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
MSP Fuel Storage Facility	MSP Fuel Storage Facility 5001 Post Road Minneapolis, MN 55450	Hennepin	MN	9083814	2270016	Minnesota River Valley	0.25	1/10/1987
Owens Corning Minneapolis Roofing & Asphalt	Owens Corning Minneapolis Roofing & Asphalt 1901 49th Avenue North Minneapolis, MN 55430	Hennepin	MN	2516811	1507257	Shingle Creek to Mississippi River	300.00	1/1/1977
Chs Hallock	Chs Hallock 2100 Us Highway 75 Kennedy, MN 56733	Kittson	MN	18854447	415000	Co. Ditch 8, Stream-red River		1/5/2012
Ag Proccessing, Inc.	Ag Proccessing, Inc. 800 Diagonal Street Dawson, MN 56232	Lac Qui Parle	MN	2997309	502656	Storm Sewer To Lac Qui Parle River Wetlands		1/11/1951
Great Lakes Fleet	Great Lakes Fleet Wcl Ore Docks, 1 Waterfront Drive Two Harbors, MN 55616	Lake	MN	558000	450000	Agate Bay		1/4/1968
Archer Daniels Midland Co	Archer Daniels Midland Co 400 West Erie Road Marshall, MN 56258	Lyon	MN	2633961	2284000	Redwood River		1/1/1983
Flint Hills Resources	Flint Hills Resources 901 North 7th Street Marshall, MN 56258	Lyon	MN	24062939	9136699	Redwood River Diversion Channe		1/1/1955
Magellan Pipeline Company, LLC	Magellan Pipeline Company, LLC 1601 West College Drive Marshall, MN 56258	Lyon	MN	8897288	1283562	Red Wood River via Diversion Channel	0.25	1/1/1946
CHS Oilseed Processing	CHS Oilseed Processing 1833 130th Street Fairmont, MN 56031	Martin	MN	12134340	3400000	Unnamed Creek	0.25	1/1/2003
Green Plains Fairmont, LLC	Green Plains Fairmont, LLC 1125 Bixby Road Fairmont, MN 56031	Martin	MN	3656669	1562000	Judicial Ditch-center Crk-blue		1/6/2008

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Valero Renewables Fuels Co.	Valero Renewables Fuels Co. 1444 120th Street Welcome, MN 56181	Martin	MN	3861602	1785000	Ditch-swan Slough-lilly Creek		1/6/2008
Minnesota Soybean Processors	Minnesota Soybean Processors 121 Zeh Avenue Brewster, MN 56119	Nobles	MN	24081542	8150000	Judicial Ditch 76/okabena Creek		1/1/2003
Magellan Pipeline Company, LLC	Magellan Pipeline Company, LLC 1331 Highway 42 South East Eyota, MN 55934	Olmsted	MN	6425956	1684200	Bear Creek	0.50	1/1/1966
Texpar Energy, LLC	Texpar Energy, LLC 2197 Highway 14 West Rochester, MN 55904	Olmsted	MN	9001000	3000000	Cascade Creek	0.10	1/1/1976
Green Plains Otter Tail, LLC	Green Plains Otter Tail, LLC 24096 170th Avenue Fergus Falls, MN 56537	Otter Tail	MN	2262608	1000000	Swale -kinz Waterfowl(wetl and)-ditch-lake-		1/1/2008
Superior Refining Co	Superior Refining Co 2525 US Hwy 75 South Crookston, MN 56716	Polk	MN	6552055	4200000	Burnham Creek	1.50	1/1/1991
Contanda Terminals LLC	Contanda Terminals LLC 2175 Childs Road Saint Paul, MN 55106	Ramsey	MN	8104733	1500000	Mississippi River	0.25	1/1/1980
Contanda Terminals LLC	Contanda Terminals LLC 2225 Childs Rd Saint Paul, MN 55106	Ramsey	MN	5350220	1500000	Mississippi River		1/1/1994
Flint Hills Resources, LP	Flint Hills Resources, LP 2209 Childs Road Saint Paul, MN 55106	Ramsey	MN	3963522	1071588	Mississippi River	0.25	1/1/1959
Hawkins Chemical - No Oil Sotred	Hawkins Chemical - No Oil Sotred 1125 Childs Rd St Paul, MN 55106	Ramsey	MN	4330741				

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Hawkins Chemical - No Oil Stored	Hawkins Chemical - No Oil Stored 701 Barge Canal Rd Saint Paul, MN 55107	Ramsey	MN	1066000				
Magellan Pipeline Company, LLC	Magellan Pipeline Company, LLC 2451 W County Road C Roseville, MN 55113	Ramsey	MN	84448933	3383856	Lake Jones	0.50	1/1/1931
Nustar Pipeline Operating Partnership	Nustar Pipeline Operating Partnership 2288 West County C Saint Paul, MN 55113	Ramsey	MN	26357188	4054731	Mississippi River	1.00	1/1/1946
Highwater Ethanol, LLC	Highwater Ethanol, LLC 24500 US Highway 14 Lamberton, MN 56152	Redwood	MN	1719436	750000	Dutch Charley Creek	0.00	1/1/2009
Como Lube & Supplies, Inc	Como Lube & Supplies, Inc 1108 Port Terminal Drive Duluth, MN 55802	Saint Louis	MN	2419500	260000	Lake Superior		1/8/1997
Superior Refining, LLC	Superior Refining, LLC 1400 Port Terminal Drive Duluth, MN 55816	Saint Louis	MN	603440	184800	Duluth Harbor Basin		15/09/1998
Superior Refining, LLC	Superior Refining, LLC 5746 Old Highway 61 (county Highway 73) Proctor, MN 55810	Saint Louis	MN	8440467	2288874	Sargent Creek	1.50	1/1/1957
Certainteed Corporation	Certainteed Corporation 3303 East 4th Avenue Shakopee, MN 55379	Scott	MN	4114605	1014647	Minnesota River	3000.00	1/7/2014
Flint Hills Resources, LP	Flint Hills Resources, LP 12101 Yosemite Avenue South Savage, MN 55378	Scott	MN	3761319	1054903	Minnesota River & Adjacent	0.25	1/1/1959
United Power	United Power Elk River, MN 55330	Sherburne	MN	2570000	924000		0.20	

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Nustar Pipeline Operating Partnership Lp	Nustar Pipeline Operating Partnership Lp 1833 Beltline Road Sauk Centre, MN 56378	Stearns	MN	5397280	1377138	Sauk River Near St Cloud Mn	0.30	1/1/2054
Guardian Energy	Guardian Energy 4745 380th Avenue Janesville, MN 56048	Waseca	MN	3387757	1579140	Unnamed Ditch		1/11/2008
Barton Enterprises, Inc.	Barton Enterprises, Inc. 1359 Red Rock Road St. Paul, MN 55119	Washington	MN	25483775	4060940	Mississippi River	0.25	1/1/1977
Newport Terminal Corporation	Newport Terminal Corporation 54 - 21st St Newport, MN 55055	Washington	MN	16032306	2223900	Mississippi River	0.25	1/1/1959
St. Paul Park Refining Co	St. Paul Park Refining Co 301 St. Paul Park Saint Paul Park, MN 55071	Washington	MN	136153838	3745604	Mississippi River	0.00	1/1/1939
AES Ohio Generation	AES Ohio Generation 14869 U.s. Highway 52 Manchester, OH 45144	Adams	OH	2805389	1350000	Ohio River		1/8/1981
Buckeye Termianls, LLC	Buckeye Termianls, LLC 817 West Vine Street Lima, OH 45804	Allen	OH	1452084	408744	Ottawa River	0.50	1/1/1950
Buckeye Terminals, LLC	Buckeye Terminals, LLC 1500 West Buckeye Road Lima, OH 45804	Allen	OH	49944996	7677180	Ottawa River	1.00	1/1/1938
Guardian Lima, LLC	Guardian Lima, LLC 2485 Houx Parkway Lima, OH 45804	Allen	OH	2141971	2010000	Unnanmed Tributary To Lost Creek To	0.10	1/4/2011
Lima Refining Company	Lima Refining Company 1150 South Metcalf Steet Lima, OH 45804	Allen	OH	270423000	11705400	Ottawa River		01/01/1886

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
MPLX Terminals, LLC	MPLX Terminals, LLC 2990 South Dixie Highway Lima, OH 45804	Allen	OH	38623772	11280358	Ottawa River	0.25	1/1/1950
The Proctor & Gamble Manufacturing Co	The Proctor & Gamble Manufacturing Co 3875 Reservoir Rd Lima, OH 45804	Allen	OH	1449331	94000	Ottawa River		1/1/1968
Csx Ashtabula West Yard	Csx Ashtabula West Yard 401 East 38th Street Ashtabula, OH 44004	Ashtabula	OH	1000000	1000000		0.75	
First Energy Generation Corp.	First Energy Generation Corp. 2133 Lake Road East Ashtabula, OH 44004	Ashtabula	OH	8140000	34200			
Duke Energy	Duke Energy 2100 Woodsdale Road Trenton, OH 45067	Butler	OH	4181232	4000000	Great Miami River	0.00	1/1/1991
Terry Asphalt Materials, Inc.	Terry Asphalt Materials, Inc. 8600 Bilstein Boulevard Hamilton, OH 45015	Butler	OH	17369130	4200000	Old Erie Canal		2/2/2083
Dynergy Zimmer, LLC	Dynergy Zimmer, LLC 1781 Us Route 52 Moscow, OH 45153	Clermont	OH	127501854	3000000	Ohio River	0.25	1/5/1990
Wilmington Air Park	Wilmington Air Park 1113 Airport Road Wilmington, OH 45177	Clinton	OH	554445	229571	Lytle Creek	0.25	1/1/1980
East Liverpool River-Rail Terminal Co	East Liverpool River-Rail Terminal Co 395 River Road East Liverpool, OH 43920	Columbiana	OH	6825000	1260000	Ohio River		1/1/1972
Marathon Petroleum LLC	Marathon Petroleum LLC 21st St & Nevada St Wellsville, OH 43968	Columbiana	OH	13212112	4060929	Ohio River	0.25	1/1/1955

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Transmontaigne Terminaling Inc.	Transmontaigne Terminaling Inc. 425 River Road East Liverpool, OH 43920	Columbiana	OH	9575202	1502802	Ohio River	0.25	1/1/1956
Arcelormittal Cleveland, Inc.	Arcelormittal Cleveland, Inc. 3060 Eggers Avenue Cleveland, OH 44105	Cuyahoga	OH	12583117	11257697	Cuyahoga River & Lake Erie	0.01	1/1/1913
Buckeye Terminals LLC	Buckeye Terminals LLC 4800 East 49th Street Cleveland, OH 44125	Cuyahoga	OH	8189037	1789200	Ohio & Erie Canal/cuyahoga Rvr	0.25	1/1/1954
Buckeye Terminals, LLC	Buckeye Terminals, LLC 2201 W Third St Cleveland, OH 44113	Cuyahoga	OH	6368696	1271000	Cuyahoga River		1/1/1927
Cleveland Hopkins Intl. Airport	Cleveland Hopkins Intl. Airport 5921 Cargo Rd. Cleveland, OH 44135	Cuyahoga	OH	1380240	689220	Drainage Ditch To Abram Creek		1/1/1964
Marathon Petroleum, LLC	Marathon Petroleum, LLC 2000 Central Furnace Ct Cleveland, OH 44115	Cuyahoga	OH	8649087	2400372	Cuyahoga River		1/1/1984
MPLX Terminals, LLC	MPLX Terminals, LLC 10439 Brecksville Rd Brecksville, OH 44141	Cuyahoga	OH	24642544	4060929	Cuyahoga River	1.00	1/1/1960
Shelly Liquid Division	Shelly Liquid Division 101 Mahoning Avenue Cleveland, OH 44113	Cuyahoga	OH	9615026	4100000	Cuyahoga River		1/1/1994
Sunoco Partners Marketing & Terminals Lp	Sunoco Partners Marketing & Terminals Lp 3200 Independence Cleveland, OH 44105	Cuyahoga	OH	11402286	1901928	Cuyahoga River	0.50	1/1/1954
Zenith Energy Terminals	Zenith Energy Terminals 250 Mahoning Avenue Cleveland, OH 44113	Cuyahoga	OH	26904041	4032000	Cleveland Lakefront State Park/Cuyahoga	0.00	1/1/1929

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
The Andersons Marathon Holdings, LLC	The Andersons Marathon Holdings, LLC 5728 Sebring Warner Drive Greenville, OH 45331	Darke	OH	4674812	1447000	Greenville Crk, Stillwater Rvr, Great Miami Rvr	0.75	1/1/2007
CertainTeed Corporation	CertainTeed Corporation 11519 US Route 250 North Milan, OH 44846	Erie	OH	10326923	1015300	Ditch-Mud Brook-Huron River-Lake Eris	0.00	1/1/1973
Norfolk Southern	Norfolk Southern 13401 State Route 4 Bellevue, OH 44811	Erie	OH	1895755	859290	Pipe Creek/Castawa y Bay/Sandusky	0.00	1/1/1967
Valero Renewable Fuels Co., LLC	Valero Renewable Fuels Co., LLC 3979 State Route 238 Ne Bloomington, OH 43106	Fayette	OH	3277268	1500000	East Fork Creek		20/03/2008
Buckeye Terminals LLC	Buckeye Terminals LLC 303 North Wilson Road Columbus, OH 43204	Franklin	OH	13320490	2255400	Unnamed Creek & Scioto River	0.25	1/1/1951
Buckeye Terminals LLC	Buckeye Terminals LLC 3651 Fisher Road Columbus, OH 43228	Franklin	OH	6100882	2349900	Scioto River	1.50	1/1/1939
Citgo Petroleum Corporation	Citgo Petroleum Corporation 6433 Cosgray Rd Dublin, OH 43016	Franklin	OH	8850461	2835702	Indian Run South Fork	0.30	1/1/1970
Heritage Asphalt, LLC	Heritage Asphalt, LLC 3737 Fisher Rd Columbus, OH 43228	Franklin	OH	1504600	527000	Dry Run Creek, A Tributary Of Scioto River		1/1/1982
MPLX Terminals LLC	MPLX Terminals LLC 3855 Fisher Rd Columbus, OH 43228	Franklin	OH	11184653	2371519	Scioto River	1.00	1/1/1956
MPLX Terminals LLC	MPLX Terminals LLC 4125 Fisher Rd Columbus, OH 43228	Franklin	OH	20541154	3412308	Drainage Ditch & Dry Run Creek, Scioto		1/1/1954

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Sunoco Partners Marketing & Terminals Lp	Sunoco Partners Marketing & Terminals Lp 3499 West Broad Street Columbus, OH 43204	Franklin	OH	3670243	836758	Stream	0.50	1/1/2038
Sunoco Partners Marketing & Terminals Lp	Sunoco Partners Marketing & Terminals Lp 3866 Fisher Road Columbus, OH 43228	Franklin	OH	8173515	2443564	Stream To Scioto River	0.25	1/1/1961
Vertex Refining OH, LLC	Vertex Refining OH, LLC 4001/4021 East Fifth Avenue Columbus, OH 43219	Franklin	OH	1622575	1103751	1750 Ft To Mason Creek To Big Walnit		1/1/2005
General James M Gavin Plant	General James M Gavin Plant 7397 State Route 7 Cheshire, OH 45670	Gallia	OH	2610214	2000000	Ohio River	0.25	1/1/1973
Shelly Liquid Division	Shelly Liquid Division 1400 St.rt. 7 North Gallipolis, OH 45631	Gallia	OH	45010440	7920000	Ohio River		1/1/1989
Wright Patterson Air Force Base	Wright Patterson Air Force Base 5135 Pearson Road,comdr 88thairbase Wing Wright-patterson Air Forc, OH 45433	Greene	OH	6478488	840000	Bass Lake	0.25	1/1/1948
BASF Corporation	BASF Corporation 4900 Este Ave Cincinnati, OH 45232	Hamilton	OH	3500220	265000	Mill Creek & Ohio River	0.25	1/1/1985
Buckeye Terminals LLC	Buckeye Terminals LLC 5150 River Rd Cincinnati, OH 45233	Hamilton	OH	16628808	2708244	Ohio River		1/10/2067
Cincinnati Renewable Fuels LLC	Cincinnati Renewable Fuels LLC 4700 Este Avenue Cincinnati, OH 45232	Hamilton	OH	7984184	733765	Adjacent To Mill Creek To Ohio River		1/1/1997
Contanda Terminals	Contanda Terminals 3500 Southside Ave Cincinnati, OH 45204	Hamilton	OH	18144322	1616096	Ohio River		7/1/1967

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Dynegy Miami Fort	Dynegy Miami Fort 11021 Brower Rd North Bend, OH 45052	Hamilton	OH	4556620	3116000	Ohio River		1/1/1939
Emery Oleochemicals	Emery Oleochemicals 4900 Este Avenue Cincinnati, OH 45232	Hamilton	OH	14033475	410000	Mill Creek		1/1/1985
Ge Aircraft Engines	Ge Aircraft Engines One Neumann Way Md N123 Cincinnati, OH 45215	Hamilton	OH	2361463	1015248	Mill Creek	0.25	1/1/2041
Greater Cincinnati Asphalt Terminal 2 LI	Greater Cincinnati Asphalt Terminal 2 LI 10100 Brower Rd North Bend, OH 45052	Hamilton	OH	30940961	6000000	Ohio River	0.25	1/1/1919
J.m. Smucker LLC	J.m. Smucker LLC 5204 Spring Grove Avenue Cincinnati, OH 45217	Hamilton	OH	19620144	19562179	Ohio River		1/1/2011
Kinder Morgan	Kinder Morgan 930 Tennessee Avenue Cincinnati, OH 45229	Hamilton	OH	6342516	1040634	Mill Creek	1.00	1/1/1939
Marathon Petroleum LLC	Marathon Petroleum LLC 11001 Brower Rd North Bend, OH 45052	Hamilton	OH	73568387	8422667	Ohio River	0.25	1/1/1954
MPLX Terminals LLC	MPLX Terminals LLC 4015 River Road Cincinnati, OH 45204	Hamilton	OH	23620061	3554488	Ohio River		1/1/1920
Peter Cremer North America, LP	Peter Cremer North America, LP 3117 Southside Avenue Cincinnati, OH 45204	Hamilton	OH	5169223	900273	Ohio River		1/1/1929
Proctor & Gamble Co	Proctor & Gamble Co 5201 Spring Grove Avenue Cincinnati, OH 45217	Hamilton	OH	5857518	1000000	Mill Creek	0.18	1/1/2004

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Queen City Terminal	Queen City Terminal 3806 Kellogg Ave Cincinnati, OH 45226	Hamilton	OH	2923300	2287472	Ohio River		1/1/1971
The Valvoline Company	The Valvoline Company 3901 River Rd Cincinnati, OH 45204	Hamilton	OH	11145385	1300000	Ohio River	0.25	1/1/1966
WATCO Co., River T	WATCO Co., River T 5297 River Road Cincinnati, OH 45223	Hamilton	OH	11976793	1663622	Ohio River	0.00	1/1/1940
Ashland/ Break Out Tanks Only No Frp	Ashland/ Break Out Tanks Only No Frp 709 Glessner Ave Findlay, OH 45840	Hancock	OH	13892592	2696232		1.50	
Markwest Ohio Fractionation Co, LLC	Markwest Ohio Fractionation Co, LLC 46700 Giacobbi Road Jewett, OH 43986	Harrison	OH	8591352	1680000	Cross Creek To Ohio River		1/1/2013
Utica Condensate Stabilization Facility	Utica Condensate Stabilization Facility 44200 Cadis-stuebenville Rd Cadiz, OH 43907	Harrison	OH	3137159	2100000	Unnamed Trubitary To Liming Creek		
Bunge North America	Bunge North America 605 Goodrich Rd. Bellevue, OH 44811	Huron	OH	3143840	1400000	Snyders Ditch		1/1/1947
Marathon Pipe Line	Marathon Pipe Line Route 4 Bellevue, OH 44811	Huron	OH	1248978	1246980	Unnamed Intermittent Stream,		1/1/1966
Norfolk Southern	Norfolk Southern P.o. Box 349 Bellevue, OH 44811	Huron	OH	913625				
Cardinal Power Plant	Cardinal Power Plant 306 County Road 7E Brilliant, OH 43913	Jefferson	OH	126936306	940000	Ohio River		1/1/1966

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
MPLX Terminals LLC	MPLX Terminals LLC 436 Kingsdale Rd Steubenville, OH 43952	Jefferson	OH	5438605	2037515	Alleghany Steel Run	0.25	1/1/1983
S & S Terminal Incorporated	S & S Terminal Incorporated 1720 Old Service Route 7 Rayland, OH 43702	Jefferson	OH	15681665	4999974	Ohio River		1/1/1969
The Lubrizol Corporation	The Lubrizol Corporation 155 Freedom Road Painesville, OH 44077	Lake	OH	26010000	1015000	Blackbrook Creek	0.25	1/1/1956
Ergon Ironton, Inc.	Ergon Ironton, Inc. 2914 S Third St Ironton, OH 45638	Lawrence	OH	3503816	2100000	Ohio River	0.25	1/1/1936
Honeywell International/caretaker Status	Honeywell International/caretaker Status 3330 S Third St Ironton, OH 45638	Lawrence	OH	2959835	1575000			
South Point Ethanol	South Point Ethanol U.s. Routh 52 And Solida Road South Point, OH 45680	Lawrence	OH	4000000			0.50	
Sunoco, Inc./not An Frp 200,000g Only	Sunoco, Inc./not An Frp 200,000g Only Us Rte 52/oh Furnace Rd, P.o.box 180 Ironton, OH 45638	Lawrence	OH	0				
Koch Pavemenet Solutions/idled Facility	Koch Pavemenet Solutions/idled Facility 800 Irving Wick Drive Newark, OH 43056	Licking	OH	9922750	3272235	Ramp Creek		1/1/2039
Marathon Pipe Line	Marathon Pipe Line 840 Heath Road Heath, OH 43056	Licking	OH	22873372	4458342	Unnamed Ditch To South Fork Licking River		1/1/1920
Buckeye Terminals, LLC	Buckeye Terminals, LLC 12545 South Avon Belden Road Grafton, OH 44044	Lorain	OH	6023725	1590077	Willow Creek	1.00	1/11/1966

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Firstenergy Generation Corp.	Firstenergy Generation Corp. 7101 West Erie Avenue Lorain, OH 44053	Lorain	OH	3455300	2760000	Lake Erie	0.24	1/1/2073
Uss/kobe Steel Company-republic	Uss/kobe Steel Company-republic 1807 E 28th St Lorain, OH 44055	Lorain	OH	646600	300000			
Asphalt Materials, Inc.	Asphalt Materials, Inc. 940 N Wynn Rd. Oregon, OH 43616	Lucas	OH	4405067	2350074	Roadside Drainage Swale-L.erie	0.25	1/1/2075
BP Oil North America Inc-	BP Oil North America Inc- 4001 Cedar Point Road Oregon, OH 43616	Lucas	OH	86563719	9706200	Ditch That Runs Through The Facility Leadin		1/1/1919
Buckeye Terminals LLC	Buckeye Terminals LLC 2450 Hill Avenue Toledo, OH 43607	Lucas	OH	5362894	839366	Ten Mile Creek/ottawa River	0.25	1/1/1951
Buckeye Terminals, LLC	Buckeye Terminals, LLC 235 Sinclair Street Toledo, OH 43605	Lucas	OH	5250958	1035000	Maumee River	0.25	17/10/1994
Citgo Holdings Terminals, LLC	Citgo Holdings Terminals, LLC 1840 Otter Creek Road Oregon, OH 43616	Lucas	OH	49557288	7560000	Lake Erie, Maumee River	0.60	1/1/1919
Delta Fuels Of Ohio	Delta Fuels Of Ohio 1820 Front St Toledo, OH 43605	Lucas	OH	11442535	2288507	City Of Toledo Sanitary Sewer		1/1/2051
Lubriplate Lubricants Co.	Lubriplate Lubricants Co. 1500 Oakdale Avenue Toledo, OH 43605	Lucas	OH	2357695	60000	Maume Bay & Lake Erie		1/1/1925
MPLX Terminals LLC	MPLX Terminals LLC 4131 Seaman Road Oregon, OH 43616	Lucas	OH	10354889	2439095	Amlsch Ditch to Maumee River	1.00	1/1/1952

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Seneca Petroleum Co.inc	Seneca Petroleum Co.inc 2563 Front Street Toledo, OH 43605	Lucas	OH	6232950	3360000	Maumee River		22/05/2006
Shelly Liquid Division	Shelly Liquid Division 352 George Hardy Dr Toledo, OH 43605	Lucas	OH	11830209	4600000	Maumee Bay	0.25	1/1/1989
Toledo Refining Co, LLC	Toledo Refining Co, LLC 2200 Pickle Road Oregon, OH 43616	Lucas	OH	161746398	19474980	Otter Creek, Maumee River		1/1/1920
Toledo Refining Co	Toledo Refining Co 1819 Woodville Road Oregon, OH 43616	Lucas	OH	56777675	4200000	Maumee River		1/1/1995
Toledo Refining Co-	Toledo Refining Co- 1900-2100 Front Street Toledo, OH 43605	Lucas	OH	5593014	4620000	Maumee River		1/1/1995
Toledo Terminal	Toledo Terminal 1601 Woodville Rd Toledo, OH 43605	Lucas	OH	4743000	659400	Lake Erie	0.50	1/1/1946
Zenith Energy Terminals	Zenith Energy Terminals 2844 Summit Street Toledo, OH 43611	Lucas	OH	10896259	2289461	Maumee River	0.25	1/1/1930
MPLX Terminals LLC	MPLX Terminals LLC 1140 Bears Den Rd Youngstown, OH 44511	Mahoning	OH	5551889	2412939	Lake Erie		1/1/1948
Sunoco Partners Marketing & Terminals Lp	Sunoco Partners Marketing & Terminals Lp 6331 Southern Boulevard Youngstown, OH 44512	Mahoning	OH	934457	399871	Boardman Ditch To Cranberry Run		1/1/1932
Asphalt Materials, Inc.	Asphalt Materials, Inc. 184 Marion-williamsport Road West Marion, OH 43302	Marion	OH	0	43390			

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Countrymark Refining & Logistics	Countrymark Refining & Logistics 2801 Selmaville Road Salem, OH 62881	Marion	OH	3171780	2329030	crooked creek	100.00	1/1/1940
Buckeye Terminals, LLC	Buckeye Terminals, LLC 801 Brandt Pike Dayton, OH 45404	Montgomery	OH	6962965	2352000	Mad River	0.50	1/1/1949
Citgo Holdings Terminals, LLC	Citgo Holdings Terminals, LLC 1800 Farr Dr Dayton, OH 45404	Montgomery	OH	8951515	2254098	Mad River	1.00	1/1/2051
Clean Water LTD	Clean Water LTD 300 Cherokee Drive Dayton, OH 45417	Montgomery	OH	1701660	185486	Arthur O. Fischer Park & Great Miami	5280.00	7/5/1994
Energy Transfer (SUNOCO)	Energy Transfer (SUNOCO) 1708 Farr Dr Dayton, OH 45404	Montgomery	OH	9309290	1890000	Still Water River	0.75	1/1/1938
Kinder Morgan	Kinder Morgan 621 Brandt Pike Dayton, OH 45404	Montgomery	OH	11552290	3339000	Mad River, Great Miami River	0.50	1/1/1938
Tait Electric Generating Station	Tait Electric Generating Station 2101 Arbor Boulevard Moraine, OH 45439	Montgomery	OH	1403388	600000	Greater Miami River	0.00	3/1/1900
Asphalt Materials, Inc	Asphalt Materials, Inc 219 1/2 W. High Street Edison, OH 43320	Morrow	OH	5577402	2098675	0.1 Mi To Whetstone Creek	0.10	1/1/1996
Enlink Midstream	Enlink Midstream 9155 Black Run Road Nashport, OH 43830	Muskingum	OH	5178651	2721600	300 Feet To Black Run Creek		1/1/1993
Darby Generating Station	Darby Generating Station 12509 Adkins Road Mt. Sterling, OH 43143	Pickaway	OH	3109098	1353000	Unnamed Tributary, Dry Run, Deer	0.00	1/1/2001

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Guttman Realty Company	Guttman Realty Company 1519 South Chillicothe Road Aurora, OH 44202	Portage	OH	13913821	2256702	Sm. Seasonal Drainage/sm. Stre		1/1/1960
Kokosing Materials, Inc.	Kokosing Materials, Inc. 215 Oak Street Mansfield, OH 44905	Richland	OH	25536804	4063920	Rock Fork Creek		1/4/2001
Buckeye Terminals, LLC	Buckeye Terminals, LLC 106 Harding Avenue Portsmouth, OH 45662	Scioto	OH	5105350	1692600	Ohio River		1/1/1935
Kokosing Materials, Inc.	Kokosing Materials, Inc. 3607 Hayport Road Wheelersburg, OH 45694	Scioto	OH	11298400	2708400	Ohio River		1/1/1999
Norfolk Southern Railway Company	Norfolk Southern Railway Company 2435 8th Street Portsmouth, OH 45662	Scioto	OH	2067037	1025500	Clarks Run Creek/lake Herringt	0.25	01/01/1850
Archer Daniels Midland Co	Archer Daniels Midland Co 608 Findlay Road Fostoria, OH 44830	Seneca	OH	17181505	7219410	East Fork Of Portage River		1/1/1958
Buckeye Terminal LLC	Buckeye Terminal LLC 197 Wall Street Tiffin, OH 44883	Seneca	OH	6307712	2251200	Sandusky River	0.75	1/1/1917
Cargill Incorporated	Cargill Incorporated 2400 Industrial Dr Sidney, OH 45365	Shelby	OH	10017784	800000	Mill Creek Tributary	0.25	1/8/1988
Buckeye Terminals, Inc	Buckeye Terminals, Inc 807 Hartford Avenue SE Canton, OH 44707	Stark	OH	7799228	1045800	Nimishillen Creek	0.50	01/01/1888
Ergon Trucking, Inc.	Ergon Trucking, Inc. 11117 Bachelor Road Nw Magnolia, OH 44643	Stark	OH	6839278	2100000	Tributary Of Sandy Creek	0.75	1/1/1971

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Marathon Petroleum Co Lp	Marathon Petroleum Co Lp 2408 Gambrinus Avenue Sw Canton, OH 44706	Stark	OH	133023755	11795070	Hurford Run Creek	0.25	1/1/1930
Citgo Petroleum Corporation	Citgo Petroleum Corporation 1595 Southeast Ave Tallmadge, OH 44278	Summit	OH	8610988	3240300	Ti Creek 4	0.75	1/1/1953
Gillota, Inc.	Gillota, Inc. 415 E. Hines Hill Road Boston Heights, OH 44236	Summit	OH	9956375	2900000	Unnamed Tributary to Brandywine	0.00	1/1/1965
Sunoco Partners Marketing & Terminals Lp	Sunoco Partners Marketing & Terminals Lp 999 Home Ave Akron, OH 44310	Summit	OH	4185643	1250518	Unnamed Tibutary to Kelcey Creek to Little Cuyahoga		1/1/1932
Buckeye Terminals, LLC	Buckeye Terminals, LLC 1001 Youngstown Warren Road Niles, OH 44446	Trumbull	OH	7694921	1650000	Tributary to Mosquito Creek,	0.25	1/1/1952
American Electric Power	American Electric Power 4406 Mentzer Road Convoy, OH 45832	Van Wert	OH	1463022	1353000	Unnamed Ditch To Upper Prairie Creek To	1.00	16/04/2002
Enterprise Refined Products	Enterprise Refined Products 2700 Hart Road Lebanon, OH 45036	Warren	OH	59947512	5880000	Tributary Of Turtle Creek		1/1/1919
Marathon Petroleum LLC	Marathon Petroleum LLC 999 West Ohio 122 Lebanon, OH 45036	Warren	OH	24266040	6345201	Settling Pond/ditch		1/1/1979
Deep Rock Disposal Solutions	Deep Rock Disposal Solutions 21350 State Route 676 Marietta, OH 45750	Washington	OH	966000	888720	Mile Run to Ohio River	1000.00	1/1/2016
Asphalt Materials North Plant	Asphalt Materials North Plant 505 River Lane Marietta, OH 45750	Washington	OH	4430370	839262	Ohio River	0.25	1/1/1958

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Asphalt Materials, Inc.	Asphalt Materials, Inc. 13925 State Route 7 Marietta, OH 45750	Washington	OH	5898663	622958	Ohio River	0.25	1/1/1974
CC UTICA	CC UTICA 222 Dragstrip Road Belpre, OH 45714	Washington	OH	5041285	2520000	Ohio River	0.00	1/1/2015
Deeproch Disposal Facility	Deeproch Disposal Facility 20225 State Route 7 Marietta, OH 45750	Washington	OH	1357385	966000	Ohio River Watershed	585.00	1/1/2016
Ergon Trucking, Inc.	Ergon Trucking, Inc. State Route 7 Marietta, OH 45750	Washington	OH	17556349	5250000	Ohio River		1/1/1999
Fq Energy Services, LLC	Fq Energy Services, LLC 28407 State Route 7 Marietta, OH 45750	Washington	OH	3002400	1260000	Ohio River	0.10	1/7/2012
Kraton Polymers U.S., LLC	Kraton Polymers U.S., LLC 2419 State Route 618 Belpre, OH 45714	Washington	OH	39321423	564054	Davis Creek/ohio River	0.25	1/1/1962
MPLX Terminals LLC	MPLX Terminals LLC 655 River Lane Marietta, OH 45750	Washington	OH	8806728	1904029	Ohio River	0.25	1/1/1950
Ohio Oil Gathering, Inc	Ohio Oil Gathering, Inc 34670 State Route 7 Newport, OH 45768	Washington	OH	14547408	2730504	Ohio River	0.25	1/1/1930
Orion Engineered Carbons	Orion Engineered Carbons 11135 State Route 7 Belpre, OH 45714	Washington	OH	6953637	2730000	Ohio River	0.25	1/1/1968
Buckeye Terminals, Llc-facility Idled	Buckeye Terminals, Llc-facility Idled W18 U.s. Route 127 E/w Bryan, OH 43506	Williams	OH	3372348	840000	Prairie Creel	0.50	1/7/1993

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Troy Energy, LLC	Troy Energy, LLC 22379 Pemberville Road Luckey, OH 43443	Wood	OH	4612230	2250000	Tributary Of Tousiant Creek		19/04/2002
Citgo Petroleum Corporation	Citgo Petroleum Corporation 1391 Bylsby Avenue Green Bay, WI 54303	Brown	WI	13982000	3360000	Fox River/green Bay	0.50	1/1/1945
Construction Resouces Management Inc.	Construction Resouces Management Inc. 123 9th Street Green Bay, WI 54305	Brown	WI	16914000	2300000	Fox River	0.00	1/1/1994
Flint Hills Resopurces, LP	Flint Hills Resopurces, LP 1496 Bylsby Avenue Green Bay, WI 54303	Brown	WI	4608438	2349974	Fox River Leading To Green Bay	0.10	1/1/1964
Sanamax Corporation	Sanamax Corporation 1000 Mcdonald Street Green Bay, WI 54303	Brown	WI	2550467	640608	Fox River	0.25	1/1/1965
US Oil	US Oil 1031 Hurlbut St Green Bay, WI 54303	Brown	WI	5803180	2417940	Atkinson Marsh to Bay of Green Bay	5.00	1/1/1964
Us Oil	Us Oil 1910 & 2020 North Quincy Street Green Bay, WI 54302	Brown	WI	25966750	3780000	Fox River		1/1/2088
US Oil	US Oil 1910 N Quincy St. Green Bay, WI 54301	Brown	WI	18529098	3800000	Lake Michigan	0.50	1/1/2050
US Venture, Inc.	US Venture, Inc. 1124 North Broadway Green Bay, WI 54305	Brown	WI	28019871	3299646	Fox River	0.20	1/1/1910
Us Venture, Inc.	Us Venture, Inc. 410 Prairie Ave Green Bay, WI 54303	Brown	WI	13865955	4801236	Fox River/lake Michigan	0.25	1/1/1948

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
US Venture	US Venture 1031 Hurlbut Street Green Bay, WI 54303	Brown	WI	14822368	3412308	Green Bay	0.25	1/1/1960
Chs	Chs 3827 North Prairie View Road Chippewa Falls, WI 54729	Chippewa	WI	16277397	2352000	Intermittent Watercourse	0.25	1/1/1957
US Venture, Inc.	US Venture, Inc. 3689 North Prairie View Road Chippewa Falls, WI 54729	Chippewa	WI	5414259	1687896	Stream To Lake Hallie	0.20	1/1/1961
United Wisconsin Grain Producers	United Wisconsin Grain Producers W1231 Tessman Road Friesland, WI 53935	Columbia	WI	5401604	750800	North Branch Duck Creek		1/4/2005
Chs Cooperatives, Inc.	Chs Cooperatives, Inc. 4103 Triangle Street Mc Farland, WI 53558	Dane	WI	7275280	2310000	Upper Mud Lake	0.25	1/1/1960
Citgo Petroleum Corporation	Citgo Petroleum Corporation 4606 Terminal Drive Madison, WI 53558	Dane	WI	7006533	2310000	Lake Waubesa/upper Mud Lake	0.75	1/1/1954
Flint Hills Resources, LP.	Flint Hills Resources, LP. 4405 Terminal Drive Mc Farland, WI 53558	Dane	WI	14346704	4865034	Lake Waubesa	0.25	1/1/1988
REG Madison, LLC	REG Madison, LLC 533 N. Stevenson De Forest, WI 53532	Dane	WI	1642320	308944	Wetlands Along Yahara River & Yahara River		1/1/1960
Rockgen Energy Center	Rockgen Energy Center 2346 Clearview Road Cambridge, WI 53523	Dane	WI	1247142	1125000	Koshkonong Creek		1/6/2001
Safety-kleen Systems	Safety-kleen Systems 3715 Lexington Avenue Madison, WI 53714	Dane	WI	1736041	501025	Starweather Creek	0.25	1/1/1972

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Us Venture, Inc.	Us Venture, Inc. 3910 Terminal Rd Madison, WI 53718	Dane	WI	5359055	1654170	Upper Mud Lake/lake Waubesa	0.25	1/1/1960
Us Venture, Inc	Us Venture, Inc 4402 Terminal Rd Mc Farland, WI 53558	Dane	WI	19772996	3170664	Lake Waubesa	0.25	1/1/1955
Us Venture, Inc	Us Venture, Inc 4516 Siggelkow Road Mc Farland, WI 53558	Dane	WI	7613284	2316154	Lake Waubesa	0.25	1/1/1955
Zenith Energy Terminals Holdings, LLC	Zenith Energy Terminals Holdings, LLC 4009 Triangle Street Mc Farland, WI 53558	Dane	WI	6369110	2310000	Drainage Ditch, Door Creek, Lake Waubesa	0.00	1/3/1952
Amsoil	Amsoil One Amsoil Center Superior, WI 54880	Douglas	WI	2682655	50000	Ditch To St. Louis Bay/Lake Superior	0.25	1/1/2008
Enbridge - Formerly Lakehead Pipeline	Enbridge - Formerly Lakehead Pipeline 119 N 25th St E Superior, WI 54880	Douglas	WI	0				
OSI Environmental, INC	OSI Environmental, INC 122-132 John Avenue Superior, WI 54880	Douglas	WI	1070775	1000000	Superior Bay & St. Louis River		1/1/1999
Plains Midstream Canada	Plains Midstream Canada 2600 E. 21st Street Superior, WI 54880	Douglas	WI	4250496	2121000	Adjacent To Newton Creek To Superior Bay		1/1/1970
Superior Refining Co.	Superior Refining Co. 2407 Stinson Avenue Superior, WI 54880	Douglas	WI	121582762	9090942	St. Louis Bay, Superior Bay, Newton	1.00	1/1/1958
Big River Resources Boyceville, LLC	Big River Resources Boyceville, LLC N10185 370th Street Boyceville, WI 54705	Dunn	WI	6143810	750000	South Hay River		6/9/2006

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Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Henry G. Meigs, LLC	Henry G. Meigs, LLC 3827 McIntyre Avenue Eau Claire, WI 54703	Eau Claire	WI	635634	108156	Storm Sewer	1.00	1/1/2080
Flint Hills Resources, LP	Flint Hills Resources, LP N 4240 Highway 26 Waupun, WI 53963	Fond Du Lac	WI	28750535	3790273	Willow Creek/w.branch Rock Rvr	0.50	1/1/1988
International Paper	International Paper 981 S Hickory St Fond Du Lac, WI 54935	Fond Du Lac	WI	15000	3750		1.50	
Badger State Ethanol	Badger State Ethanol 820 West 17th St. Monroe, WI 53566	Green	WI	1605601	750000	Honey Creek		1/10/2002
Wisconsin Electric Power Company	Wisconsin Electric Power Company 8914 County E Watertown, WI 53094	Jefferson	WI	1586097	1500000	Rock River	0.20	1/4/1993
Marquis Energy - Wisconsin LLC	Marquis Energy - Wisconsin LLC N9585 State Road 80 Necedah, WI 54646	Juneau	WI	1695710	750000	Unnamed Tributary To Yellow Ri	0.40	1/2/2008
Exxonmobil-facility Idled	Exxonmobil-facility Idled 35 Copeland Ave La Crosse, WI 54601	La Crosse	WI	3192000	3511200			
Midwest Industrial Asphalt, Inc.	Midwest Industrial Asphalt, Inc. 615 Sumner St La Crosse, WI 54602	La Crosse	WI	38933324	11214000	Black River & Mississippi River	0.10	1/1/1947
Northern States Power Company	Northern States Power Company 200 S Bainbridge St La Crosse, WI 54603	La Crosse	WI	2915845	2909415	Black River		1/1/1937
Magellan Pipeline Company, LLC	Magellan Pipeline Company, LLC 2007 Old Hwy 51 Mosinee, WI 54455	Marathon	WI	6826635	2801820	Wisconsin River	1.00	1/1/2067

Region 5 Regional Contingency Plan / Inland Zone Area Contingency Plan

Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
Wisconsin Public Service	Wisconsin Public Service W1830 W Cleveland Ave Marinette, WI 54143	Marinette	WI	1680904	561350	Manmade Drainage Ditch To Little River	0.50	1/1/1993
Benz Oil Co	Benz Oil Co 2724 West Hampton Ave Milwaukee, WI 53209	Milwaukee	WI	2792641	90000	Lincoln Creek To Milwaukee River To		1/1/1956
Buckeye Terminal, LLC	Buckeye Terminal, LLC 9101 North 107th Street Milwaukee, WI 53224	Milwaukee	WI	22066406	4061820	Menomonee River	0.20	1/1/1981
Citgo Petroleum Corporation	Citgo Petroleum Corporation 9235 North 107th Street Milwaukee, WI 53224	Milwaukee	WI	18889545	3276000	Little Menomonee River	5.00	1/1/1954
Construction Resources Management, Inc.	Construction Resources Management, Inc. 301 E. Washington St. Milwaukee, WI 53204	Milwaukee	WI	27953740	3053635	Kinnickinnic River/lake Michig		1/1/1991
Flint Hills Resources, LP.	Flint Hills Resources, LP. 9343 N. 107th Street Milwaukee, WI 53224	Milwaukee	WI	14583427	4018476	Little Menomonee River	0.25	1/1/1989
MKE Fuel Co., Bulk Fuel Farm	MKE Fuel Co., Bulk Fuel Farm 1701 W. College Ave Milwaukee, WI 53207	Milwaukee	WI	7990525	4200000	Storm Sewer, Oak Creek - Lake Michigan	0.00	1/1/1986
PPG Industries, Inc	PPG Industries, Inc 10800 South 13th Street Oak Creek, WI 53154	Milwaukee	WI	2839730	16116	Root River		1/1/1974
Shell Oil Products Us-dot Facility Only	Shell Oil Products Us-dot Facility Only 923 E Layton Ave Milwaukee, WI 53207	Milwaukee	WI	3240000	4620000	Kinnickinnic River	0.30	
South Harbor Milwaukee Terminal	South Harbor Milwaukee Terminal 1726 S Harbor Drive Milwaukee, WI 53207	Milwaukee	WI	2002800	210325	Kinnickinnic River		1/1/1976

Region 5 Regional Contingency Plan / Inland Zone Area Contingency Plan

Operator	Facility	County	State	Total Volume	Worst Case	Water Body	Distance to Water	Beginning Date
US Oil Milwaukee	US Oil Milwaukee 1626 South Harbor Drive Milwaukee, WI 53207	Milwaukee	WI	13132250	3360000	Port Of Milwaukee;lake Michiga	0.25	1/1/1948
US Oil	US Oil 9521 & 9451 North 107th Street Milwaukee, WI 53224	Milwaukee	WI	22201865	3412308	Little Menomonee River	0.50	1/1/1963
US Venture Inc.	US Venture Inc. 9135 & 9125 N. 107th Street Milwaukee, WI 53224	Milwaukee	WI	29601101	5957858	Little Menomonee River	0.40	1/1/1963
Superior Refining	Superior Refining 1965 Apache Lane Rhineland, WI 54501	Oneida	WI	6708280	2200000	Thunder Lake	1.50	1/1/2070
Flint Hills Resources, LP	Flint Hills Resources, LP 2267 County Road HH Junction City, WI 54443	Portage	WI	22110636	8439900	Wisconsin River/mill Creek	0.70	1/1/1964
Flint Hills Resources, LP	Flint Hills Resources, LP 741 Mason Street Stevens Point, WI 54481	Portage	WI	3659371	1714563	Wisconsin River/adjacent Wetla	0.10	1/1/1958
Wisconsin Electric Power	Wisconsin Electric Power 335 172nd Ave (south Of Cth Kr) Union Grove, WI 53182	Racine	WI	3793440	1500000	Rock River	1.01	1/9/1994
Department Of Defense	Department Of Defense 2 Badger Road Baraboo, WI 53913	Sauk	WI	2647783	824000	Wisconsin River	1.50	
Wolf Paving	Wolf Paving W329 S1755 Jones Road Delafield, WI 53018	Waukesha	WI	2570170	2500000	Wales Creek	0.20	1/1/1950
International Paper Co/menasha Facility	International Paper Co/menasha Facility 206 Garfield Ave Menasha, WI 54952	Winnebago	WI	0	250			

FRP: Facility Response Plan

Appendix III: Shoreline Cleanup Guideline Matrices

Available online at

www.rrt5.org/RCPACPMMain/RCPACPApPendices/ShorelineCleanupMatrices.aspx

RRT 5 Shoreline Cleanup Guidelines for VERY LIGHT OIL (e.g., gasoline) ** DRAFT ** 2/4/93 **

Shoreline Type Codes	
1 - vertical rocky shores, seawalls, piers	6 - gravel beaches
2 - eroding scarps & sediments	7 - riprap
3 - shelving bedrock ledges	8 - sheltered bedrock & bluffs
4 - sand beaches	9 - sheltered low-lying banks
5 - mixed sand & gravel beaches	10 - fringing & extensive wetlands

Countermeasure	Shoreline Types									
	1	2	3	4	5	6	7	8	9	10
1) No Action	A	A	A	A	A	A	A	A	A	A
2) Manual Removal	A	A	A	A	A	Aa	Aa	A		
3) Passive Collection (Sorbents)	A		A			A	A	A	A	A
4) Debris Removal/Heavy Equipment										
5) Trenching (recovery wells)										
6) Sediment Removal										
7) Cold Water Flooding (deluge)						Ab	Ab		Ab	Ab
8) Cold Water Washing										
a) Low Pressure (<50psi)						Cb,f	Ab,f		Ab,f	Ab,f
b) High Pressure (<100psi)										
9) Warm Water Washing (ambient to 90F)										
10) Hot Water Pressure Washing (>90F)										
11) Slurry Sand Blasting										
12) Vacuum						Ab	Ab		Ab	Ab
13) Shore Removal/Replacement				C	C				Cc	
14) Cutting Vegetation (depends upon time of year)										
ALL METHODS BELOW REQUIRE RRT and/or STATE APPROVAL										
15) Chemical Treatment										
a) Oil Stabilization										
b) Protection of Beaches										
c) Cleaning of Beaches										
16) Burning (depends upon time of year)										C
17) Nutrient Enhancement										
18) Bacterial Addition										
19) Sediment Reworking				C	C					

Key to Identifiers

A = Acceptable

C = Conditional - Use after other less intrusive methods or following particularly heavy impact

Blank space = Not Advisable or Not Applicable

a = Manual removal of oiled debris or small persistent pockets.

b = Passive collection and vacuum should be coordinated with flooding or washing methods.

c = Shoreline removal/replacement with clay if substrate is saturated with oil.

f = Proximity to water intakes should be considered when pressure washing shoreline.

RRT 5 Shoreline Cleanup Guidelines for LIGHT OIL (e.g., diesel) ** DRAFT ** 2/4/93 **

Shoreline Type Codes	
1 - vertical rocky shores, seawalls, piers	6 - gravel beaches
2 - eroding scarps & sediments	7 - riprap
3 - shelving bedrock ledges	8 - sheltered bedrock & bluffs
4 - sand beaches	9 - sheltered low-lying banks
5 - mixed sand & gravel beaches	10 - fringing & extensive wetlands

Shoreline Types										
Countermeasure	1	2	3	4	5	6	7	8	9	10
1) No Action	A	A	A	C	C	C	A	A	A	C
2) Manual Removal	A	A	A	C	C	C	C	A	A	Cd
3) Passive Collection (Sorbents)	A		A	A	A	A	A	A	A	A
4) Debris Removal/Heavy Equipment	A		A	A	A	A	A	A	A	A
5) Trenching (recovery wells)				Ce	Ce					
6) Sediment Removal										
7) Cold Water Flooding (deluge)				Cb	Cb	Ab	Ab		Ab	Ab
8) Cold Water Washing										
a) Low Pressure (<50psi)	Ab,f	Ab,f	Ab,f				Ab,f	Ab,f	Ab,f	
b) High Pressure (<100psi)	Ab,f		Ab,f					Ab,f		
9) Warm Water Washing (ambient to 90F)	Cb,f,g	Cb,f,g	Cb,f,g					Cb,f,g	Cb,f,g	
10) Hot Water Pressure Washing (>90F)										
11) Slurry Sand Blasting										
12) Vacuum	Ab		Ab	Cb	Cb	Ab	Ab	Ab	Ab	Ab
13) Shore Removal/Replacement				C	C					
14) Cutting Vegetation (depends upon time of year)								C	C	C
ALL METHODS BELOW REQUIRE RRT and/or STATE APPROVAL										
15) Chemical Treatment										
a) Oil Stabilization				C	C	C				
b) Protection of Beaches				C	C	C				
c) Cleaning of Beaches				C	C	C				
16) Burning (depends upon time of year)										C
17) Nutrient Enhancement				C	C	C	C			
18) Bacterial Addition				C	C	C	C			
19) Sediment Reworking				C	C	C				
Key to Identifiers										
A = Acceptable										
C = Conditional - Use after other less intrusive methods or following particularly heavy impact										
Blank space = Not Advisable or Not Applicable										
b = Passive collection and vacuum should be coordinated with flooding or washing methods.										
d = Low intensity removal of mobile debris only, e.g., vegetation or driftwood.										
e = Trenching only if heavy impact exists and no other viable collection method is available.										
f = Proximity to water intakes should be considered when pressure washing shoreline.										
g = Consider biological community and porosity of substrate when using pressure or elevated temperature.										

RRT 5 Shoreline Cleanup Guidelines for MEDIUM OIL (e.g., #4 or medium crude) ** DRAFT ** 2/4/93 **

Shoreline Type Codes	
1 - vertical rocky shores, seawalls, piers	6 - gravel beaches
2 - eroding scarps & sediments	7 - riprap
3 - shelving bedrock ledges	8 - sheltered bedrock & bluffs
4 - sand beaches	9 - sheltered low-lying banks
5 - mixed sand & gravel beaches	10 - fringing & extensive wetlands

Countermeasure	Shoreline Types									
	1	2	3	4	5	6	7	8	9	10
1) No Action	Ch	Ch	Ch				Ch			Ch,i
2) Manual Removal	A	A	A	A	A	A	A	A	A	Cd
3) Passive Collection (Sorbents)	A		A	A	A	A	A	A	A	A
4) Debris Removal/Heavy Equipment			A	A	A	A	A	A	A	
5) Trenching (recovery wells)				Ce	Ce					
6) Sediment Removal		C		A	A					
7) Cold Water Flooding (deluge)				Cb	Cb	Ab	Ab		Ab	Ab
8) Cold Water Washing										
a) Low Pressure (<50psi)	Ab,f	Ab,f	Ab,f			Cb,f	Ab,f	Ab,f	Cb,f	Cb,f
b) High Pressure (<100psi)	Ab,f		Ab,f			Cb,f	Ab,f	Cb,f	Cb,f	
9) Warm Water Washing (ambient to 90F)	Ab,f,g	Cb,f,g	Ab,f,g				Cb,f,g	Cb,f,g	Cb,f,g	
10) Hot Water Pressure Washing (>90F)	Cb,f,g,j		Cb,f,g				Cg,j			
11) Slurry Sand Blasting	Cj						C			
12) Vacuum	Ab		Ab	Cb	Cb	Ab	Ab	Ab	Ab	Ab
13) Shore Removal/Replacement				A	A	C	C			
14) Cutting Vegetation (depends upon time of year)								C	C	C
ALL METHODS BELOW REQUIRE RRT and/or STATE APPROVAL										
15) Chemical Treatment										
a) Oil Stabilization				C	C			C	C	C
b) Protection of Beaches				C	C					
c) Cleaning of Beaches				C	C					
16) Burning (depends upon time of year)		C						C	C	C
17) Nutrient Enhancement				C	C	C	C			
18) Bacterial Addition				C	C	C	C			
19) Sediment Reworking		C		C	C	C	C			

Key to Identifiers

A = Acceptable

C = Conditional - Use after other less intrusive methods or following particularly heavy impact

Blank space = Not Advisable or Not Applicable

b = Passive collection and vacuum should be coordinated with flooding or washing methods.

d = Low intensity removal of mobile debris only, e.g., vegetation or driftwood.

f = Proximity to water intakes should be considered when pressure washing shoreline.

g = Consider biological community and porosity of substrate when using pressure or elevated temperature.

h = No action only if residual sheening is present.

i = No action only if the wetland fringes are impacted or access would result in unacceptable damage.

RRT 5 Shoreline Cleanup Guidelines for HEAVY OIL (e.g., bunker c) ** DRAFT ** 2/4/93 **

Shoreline Type Codes	
1 - vertical rocky shores, seawalls, piers	6 - gravel beaches
2 - eroding scarps & sediments	7 - riprap
3 - shelving bedrock ledges	8 - sheltered bedrock & bluffs
4 - sand beaches	9 - sheltered low-lying banks
5 - mixed sand & gravel beaches	10 - fringing & extensive wetlands

Countermeasure	Shoreline Types									
	1	2	3	4	5	6	7	8	9	10
1) No Action	Ch	Ch	Ch				Ch			Ch,i
2) Manual Removal	C	A	A	A	A	A	A	A	A	Cd
3) Passive Collection (Sorbents)	Ck	Ck	Ak	Ak	Ak	Ak	Ak	Ak	Ak	Ak
4) Debris Removal/Heavy Equipment			A	A	A	A	A	A	A	
5) Trenching (recovery wells)				Ce	Ce					
6) Sediment Removal		C		A	A					
7) Cold Water Flooding (deluge)				C	C	C	C		C	C
8) Cold Water Washing										
a) Low Pressure (<50psi)		Ab,f	Ab,f				Cb,f	Ab,f	Cb,f	Cb,f
b) High Pressure (<100psi)		Cb,f,g	Ab,f				Cb,f	Cb,f		
9) Warm Water Washing (ambient to 90F)	Ab,f,g	Ab,f,g	Ab,f,g				Cb,f,g	Cb,f,g	Cb,f,g	
10) Hot Water Pressure Washing (>90F)	Ab,f,g,j		Cb,f,g				Cb,f,g,j			
11) Slurry Sand Blasting	Cj						Cj			
12) Vacuum	Ab	Ab	Ab	Cb	Cb	Cb	Cb	Ab	Cb	Cb
13) Shore Removal/Replacement				A	A	A				
14) Cutting Vegetation (depends upon time of year)								C	C	C

ALL METHODS BELOW REQUIRE RRT and/or STATE APPROVAL

15) Chemical Treatment										
a) Oil Stabilization										
b) Protection of Beaches				C	C					
c) Cleaning of Beaches										
16) Burning (depends upon time of year)		C							C	C
17) Nutrient Enhancement				C	C	C	C			
18) Bacterial Addition				C	C	C	C			
19) Sediment Reworking		C		C	C	C	C			

Key to Identifiers

A = Acceptable

C = Conditional - Use after other less intrusive methods or following particularly heavy impact

Blank space = Not Advisable or Not Applicable

b = Passive collection and vacuum should be coordinated with flooding or washing methods.

d = Low intensity removal of mobile debris only, e.g., vegetation or driftwood.

f = Proximity to water intakes should be considered when pressure washing shoreline.

g = Consider biological community and porosity of substrate when using pressure or elevated temperature.

h = No action only if residual sheening is present.

i = No action only if the wetland fringes are impacted or access would result in unacceptable damage.

j = Hot water pressure wash or slurry sand blast for aesthetic reasons.

k = Passive collection only if viscosity is low enough to result in sorbent effectiveness.

Shoreline Type 1

VERTICAL ROCKY SHORELINE, SEAWALLS, PIERS

Countermeasure	Oil Type			
	Very Lt	Light	Medium	Heavy
1) No Action	A	A	Ch	Ch
2) Manual Removal	A	A	A	C
3) Passive Collection (Sorbents)	A	A	A	Ck
4) Debris Removal/Heavy Equipment		A		
5) Trenching (recovery wells)				Ce
6) Sediment Removal		C		A
7) Cold Water Flooding (deluge)				C
8) Cold Water Washing				
a) Low Pressure (<50psi)		Ab,f	Ab,f	
b) High Pressure (<100psi)		Ab,f	Ab,f	
9) Warm Water Washing (ambient to 90F)		Cb,f,g	Ab,f,g	Ab,f,g
10) Hot Water Pressure Washing (>90F)			Cb,f,g,j	Ab,f,g,j
11) Slurry Sand Blasting			Cj	Cj
12) Vacuum		Ab	Ab	Ab
13) Shore Removal/Replacement				
14) Cutting Vegetation (depends upon time of year)				
ALL METHODS BELOW REQUIRE RRT and/or STATE APPROVAL				
15) Chemical Treatment				
a) Oil Stabilization				
b) Protection of Beaches				
c) Cleaning of Beaches				
16) Burning (depends upon time of year)				
17) Nutrient Enhancement				
18) Bacterial Addition				
19) Sediment Reworking				

Key to Identifiers

A = Acceptable

C = Conditional - Use after other less intrusive methods or following particularly heavy impact

Blank space = Not Advisable or Not Applicable

b = Passive collection and vacuum should be coordinated with flooding or washing methods.

f = Proximity to water intakes should be considered when pressure washing shoreline.

g = Consider biological community and porosity of substrate when using pressure or elevated temperature.

h = No action only if residual sheening is present.

j = Hot water pressure wash or slurry sand blast for aesthetic reasons.

k = Passive collection only if viscosity is low enough to result in sorbent effectiveness.

Shoreline Type 2

ERODING SCARPS & SEDIMENTS

Countermeasure	Oil Type			
	Very Lt	Light	Medium	Heavy
1) No Action	A	A	Ch	Ch
2) Manual Removal	A	A	A	A
3) Passive Collection (Sorbents)				Ck
4) Debris Removal/Heavy Equipment				
5) Trenching (recovery wells)				
6) Sediment Removal			C	C
7) Cold Water Flooding (deluge)				
8) Cold Water Washing				
a) Low Pressure (<50psi)		Ab,f	Ab,f	Ab,f
b) High Pressure (<100psi)				Cb,f
9) Warm Water Washing (ambient to 90F)		Cb,f,g	Cb,f,g	Ab,f,g
10) Hot Water Pressure Washing (>90F)				
11) Slurry Sand Blasting				
12) Vacuum				Ab
13) Shore Removal/Replacement				
14) Cutting Vegetation (depends upon time of year)				
ALL METHODS BELOW REQUIRE RRT and/or STATE APPROVAL				
15) Chemical Treatment				
a) Oil Stabilization				
b) Protection of Beaches				
c) Cleaning of Beaches				
16) Burning (depends upon time of year)			C	C
17) Nutrient Enhancement				
18) Bacterial Addition				
19) Sediment Reworking			C	C

Key to Identifiers

A = Acceptable

C = Conditional - Use after other less intrusive methods or following particularly heavy impact

Blank space = Not Advisable or Not Applicable

b = Passive collection and vacuum should be coordinated with flooding or washing methods.

f = Proximity to water intakes should be considered when pressure washing shoreline.

g = Consider biological community and porosity of substrate when using pressure or elevated temperature.

h = No action only if residual sheening is present.

k = Passive collection only if viscosity is low enough to result in sorbent effectiveness.

Shoreline Type 3

SHELVING BEDROCK LEDGES

Countermeasure	Oil Type			
	Very Lt	Light	Medium	Heavy
1) No Action	A	A	Ch	Ch
2) Manual Removal	A	A	A	C
3) Passive Collection (Sorbents)	A	A	A	Ak
4) Debris Removal/Heavy Equipment		A	A	A
5) Trenching (recovery wells)				
6) Sediment Removal				
7) Cold Water Flooding (deluge)				
8) Cold Water Washing				
a) Low Pressure (<50psi)		Ab,f	Ab,f	Ab,f
b) High Pressure (<100psi)		Ab,f	Ab,f	Ab,f
9) Warm Water Washing (ambient to 90F)		Cb,f,g	Ab,f,g	Ab,f,g
10) Hot Water Pressure Washing (>90F)			Cb,f,g	Cb,f,g
11) Slurry Sand Blasting				
12) Vacuum		Ab	Ab	Ab
13) Shore Removal/Replacement				
14) Cutting Vegetation (depends upon time of year)				
ALL METHODS BELOW REQUIRE RRT and/or STATE APPROVAL				
15) Chemical Treatment				
a) Oil Stabilization				
b) Protection of Beaches				
c) Cleaning of Beaches				
16) Burning (depends upon time of year)				
17) Nutrient Enhancement				
18) Bacterial Addition				
19) Sediment Reworking				

Key to Identifiers

A = Acceptable

C = Conditional - Use after other less intrusive methods or following particularly heavy impact

Blank space = Not Advisable or Not Applicable

b = Passive collection and vacuum should be coordinated with flooding or washing methods.

f = Proximity to water intakes should be considered when pressure washing shoreline.

g = Consider biological community and porosity of substrate when using pressure or elevated temperature.

h = No action only if residual sheening is present.

k = Passive collection only if viscosity is low enough to result in sorbent effectiveness.

Shoreline Type 4
SANDY BEACHES

Countermeasure	Oil Type			
	Very Lt	Light	Medium	Heavy
1) No Action	A	C		
2) Manual Removal	A	C	A	A
3) Passive Collection (Sorbents)		A	A	Ak
4) Debris Removal/Heavy Equipment		A	A	A
5) Trenching (recovery wells)		Ce	Ce	Ce
6) Sediment Removal			A	A
7) Cold Water Flooding (deluge)		Cb	Cb	C
8) Cold Water Washing				
a) Low Pressure (<50psi)				
b) High Pressure (<100psi)				
9) Warm Water Washing (ambient to 90F)				
10) Hot Water Pressure Washing (>90F)				
11) Slurry Sand Blasting				
12) Vacuum		Cb	Cb	Cb
13) Shore Removal/Replacement	C	C	A	A
14) Cutting Vegetation (depends upon time of year)				
ALL METHODS BELOW REQUIRE RRT and/or STATE APPROVAL				
15) Chemical Treatment				
a) Oil Stabilization		C	C	
b) Protection of Beaches		C	C	C
c) Cleaning of Beaches		C	C	
16) Burning (depends upon time of year)				
17) Nutrient Enhancement		C	C	C
18) Bacterial Addition		C	C	C
19) Sediment Reworking	C	C	C	C

Key to Identifiers

A = Acceptable

C = Conditional - Use after other less intrusive methods or following particularly heavy impact

Blank space = Not Advisable or Not Applicable

b = Passive collection and vacuum should be coordinated with flooding or washing methods.

e = Trenching only if heavy impact exists and no other viable collection method is available

k = Passive collection only if viscosity is low enough to result in sorbent effectiveness.

Shoreline Type 5

MIXED SAND & GRAVEL BEACHES

Countermeasure	Oil Type			
	Very Lt	Light	Medium	Heavy
1) No Action	A	C		
2) Manual Removal	A	C	A	A
3) Passive Collection (Sorbents)		A	A	Ak
4) Debris Removal/Heavy Equipment		A	A	A
5) Trenching (recovery wells)		Ce	Ce	Ce
6) Sediment Removal			A	A
7) Cold Water Flooding (deluge)		Cb	Cb	C
8) Cold Water Washing				
a) Low Pressure (<50psi)				
b) High Pressure (<100psi)				
9) Warm Water Washing (ambient to 90F)				
10) Hot Water Pressure Washing (>90F)				
11) Slurry Sand Blasting				
12) Vacuum		Cb	Cb	Cb
13) Shore Removal/Replacement	C	C	A	A
14) Cutting Vegetation (depends upon time of year)				
ALL METHODS BELOW REQUIRE RRT and/or STATE APPROVAL				
15) Chemical Treatment				
a) Oil Stabilization		C	C	
b) Protection of Beaches		C	C	C
c) Cleaning of Beaches		C	C	
16) Burning (depends upon time of year)				
17) Nutrient Enhancement		C	C	C
18) Bacterial Addition		C	C	C
19) Sediment Reworking	C	C	C	C

Key to Identifiers

A = Acceptable

C = Conditional - Use after other less intrusive methods or following particularly heavy impact

Blank space = Not Advisable or Not Applicable

b = Passive collection and vacuum should be coordinated with flooding or washing methods.

e = Trenching only if heavy impact exists and no other viable collection method is available

k = Passive collection only if viscosity is low enough to result in sorbent effectiveness.

Shoreline Type 6
GRAVEL BEACHES

Countermeasure	Oil Type			
	Very Lt	Light	Medium	Heavy
1) No Action	A	C		
2) Manual Removal	Aa	C	A	A
3) Passive Collection (Sorbents)	A	A	A	Ak
4) Debris Removal/Heavy Equipment		A	A	A
5) Trenching (recovery wells)				
6) Sediment Removal				
7) Cold Water Flooding (deluge)	Ab	Ab	Ab	C
8) Cold Water Washing				
a) Low Pressure (<50psi)	Cb,f		Cb,f	
b) High Pressure (<100psi)			Cb,f	
9) Warm Water Washing (ambient to 90F)				
10) Hot Water Pressure Washing (>90F)				
11) Slurry Sand Blasting				
12) Vacuum	Ab	Ab	Ab	Cb
13) Shore Removal/Replacement			C	A
14) Cutting Vegetation (depends upon time of year)				
ALL METHODS BELOW REQUIRE RRT and/or STATE APPROVAL				
15) Chemical Treatment				
a) Oil Stabilization		C		
b) Protection of Beaches		C		
c) Cleaning of Beaches		C		
16) Burning (depends upon time of year)				
17) Nutrient Enhancement		C	C	C
18) Bacterial Addition		C	C	C
19) Sediment Reworking		C	C	C

Key to Identifiers

A = Acceptable

C = Conditional - Use after other less intrusive methods or following particularly heavy impact

Blank space = Not Advisable or Not Applicable

a = Manual removal of oiled debris or small persistent pockets.

b = Passive collection and vacuum should be coordinated with flooding or washing methods.

f = Proximity to water intakes should be considered when pressure washing shoreline.

k = Passive collection only if viscosity is low enough to result in sorbent effectiveness.

Shoreline Type 7

RIPRAP

Countermeasure	Oil Type			
	Very Lt	Light	Medium	Heavy
1) No Action	A	A	Ch	Ch
2) Manual Removal	Aa	C	A	A
3) Passive Collection (Sorbents)	A	A	A	Ak
4) Debris Removal/Heavy Equipment		A	A	A
5) Trenching (recovery wells)				
6) Sediment Removal				
7) Cold Water Flooding (deluge)	Ab	Ab	Ab	C
8) Cold Water Washing				
a) Low Pressure (<50psi)	Ab,f	Ab,f	Ab,f	Cb,f
b) High Pressure (<100psi)			Ab,f	Cb,f
9) Warm Water Washing (ambient to 90F)			Cb,f,g	Cb,f,g
10) Hot Water Pressure Washing (>90F)			Cg,j	Cb,f,g,j
11) Slurry Sand Blasting			C	Cj
12) Vacuum	Ab	Ab	Ab	Cb
13) Shore Removal/Replacement			C	
14) Cutting Vegetation (depends upon time of year)				
ALL METHODS BELOW REQUIRE RRT and/or STATE APPROVAL				
15) Chemical Treatment				
a) Oil Stabilization				
b) Protection of Beaches				
c) Cleaning of Beaches				
16) Burning (depends upon time of year)				
17) Nutrient Enhancement		C	C	C
18) Bacterial Addition		C	C	C
19) Sediment Reworking			C	C

Key to Identifiers

A = Acceptable

C = Conditional - Use after other less intrusive methods or following particularly heavy impact

Blank space = Not Advisable or Not Applicable

a = Manual removal of oiled debris or small persistent pockets.

b = Passive collection and vacuum should be coordinated with flooding or washing methods.

f = Proximity to water intakes should be considered when pressure washing shoreline.

g = Consider biological community and porosity of substrate when using pressure or elevated temperature.

h = No action only if residual sheening is present.

j = Hot water pressure wash or slurry sand blast for aesthetic reasons.

k = Passive collection only if viscosity is low enough to result in sorbent effectiveness.

Shoreline Type 8

SHELTERED BEDROCK & BLUFFS

Countermeasure	Oil Type			
	Very Lt	Light	Medium	Heavy
1) No Action	A	A		
2) Manual Removal	A	A	A	A
3) Passive Collection (Sorbents)	A	A	A	Ak
4) Debris Removal/Heavy Equipment		A	A	A
5) Trenching (recovery wells)				
6) Sediment Removal				
7) Cold Water Flooding (deluge)				
8) Cold Water Washing				
a) Low Pressure (<50psi)		Ab,f	Ab,f	Ab,f
b) High Pressure (<100psi)		Ab,f	Cb,f	Cb,f
9) Warm Water Washing (ambient to 90F)		Cb,f,g	Cb,f,g	Cb,f,g
10) Hot Water Pressure Washing (>90F)				
11) Slurry Sand Blasting				
12) Vacuum		Ab	Ab	Ab
13) Shore Removal/Replacement				
14) Cutting Vegetation (depends upon time of year)		C	C	C
ALL METHODS BELOW REQUIRE RRT and/or STATE APPROVAL				
15) Chemical Treatment				
a) Oil Stabilization			C	
b) Protection of Beaches				
c) Cleaning of Beaches				
16) Burning (depends upon time of year)			C	
17) Nutrient Enhancement				
18) Bacterial Addition				
19) Sediment Reworking				

Key to Identifiers

A = Acceptable

C = Conditional - Use after other less intrusive methods or following particularly heavy impact

Blank space = Not Advisable or Not Applicable

b = Passive collection and vacuum should be coordinated with flooding or washing methods.

f = Proximity to water intakes should be considered when pressure washing shoreline.

g = Consider biological community and porosity of substrate when using pressure or elevated temperature.

k = Passive collection only if viscosity is low enough to result in sorbent effectiveness.

Shoreline Type 9

SHELTERED LOW LYING BANKS

Countermeasure	Oil Type			
	Very Lt	Light	Medium	Heavy
1) No Action	A	A		
2) Manual Removal		A	A	A
3) Passive Collection (Sorbents)	A	A	A	Ak
4) Debris Removal/Heavy Equipment		A	A	A
5) Trenching (recovery wells)				
6) Sediment Removal				
7) Cold Water Flooding (deluge)	Ab	Ab	Ab	C
8) Cold Water Washing				
a) Low Pressure (<50psi)	Ab,f	Ab,f	Cb,f	Cb,f
b) High Pressure (<100psi)			Cb,f	
9) Warm Water Washing (ambient to 90F)		Cb,f,g	Cb,f,g	Cb,f,g
10) Hot Water Pressure Washing (>90F)				
11) Slurry Sand Blasting				
12) Vacuum	Ab	Ab	Ab	Cb
13) Shore Removal/Replacement	Cc			
14) Cutting Vegetation (depends upon time of year)		C	C	C
ALL METHODS BELOW REQUIRE RRT and/or STATE APPROVAL				
15) Chemical Treatment				
a) Oil Stabilization			C	
b) Protection of Beaches				
c) Cleaning of Beaches				
16) Burning (depends upon time of year)			C	C
17) Nutrient Enhancement				
18) Bacterial Addition				
19) Sediment Reworking				

Key to Identifiers

A = Acceptable

C = Conditional - Use after other less intrusive methods or following particularly heavy impact

Blank space = Not Advisable or Not Applicable

b = Passive collection and vacuum should be coordinated with flooding or washing methods.

c = Shoreline removal/replacement with clay if substrate is saturate with oil.

f = Proximity to water intakes should be considered when pressure washing shoreline.

g = Consider biological community and porosity of substrate when using pressure or elevated temperature.

k = Passive collection only if viscosity is low enough to result in sorbent effectiveness.

Shoreline Type 10

FRINGING & EXTENSIVE WETLANDS

Countermeasure	Oil Type			
	Very Lt	Light	Medium	Heavy
1) No Action	A	C	Ch,i	Ch,i
2) Manual Removal		Cd	Cd	Cd
3) Passive Collection (Sorbents)	A	A	A	Ak
4) Debris Removal/Heavy Equipment		A		
5) Trenching (recovery wells)				
6) Sediment Removal				
7) Cold Water Flooding (deluge)	Ab	Ab	Ab	C
8) Cold Water Washing				
a) Low Pressure (<50psi)	Ab,f		Cb,f	Cb,f
b) High Pressure (<100psi)				
9) Warm Water Washing (ambient to 90F)				
10) Hot Water Pressure Washing (>90F)				
11) Slurry Sand Blasting				
12) Vacuum	Ab	Ab	Ab	Cb
13) Shore Removal/Replacement				
14) Cutting Vegetation (depends upon time of year)		C	C	C
ALL METHODS BELOW REQUIRE RRT and/or STATE APPROVAL				
15) Chemical Treatment				
a) Oil Stabilization			C	
b) Protection of Beaches				
c) Cleaning of Beaches				
16) Burning (depends upon time of year)	C	C	C	C
17) Nutrient Enhancement				
18) Bacterial Addition				
19) Sediment Reworking				

Key to Identifiers

A = Acceptable

C = Conditional - Use after other less intrusive methods or following particularly heavy impact

Blank space = Not Advisable or Not Applicable

b = Passive collection and vacuum should be coordinated with flooding or washing methods.

d = Low intensity removal of mobile debris only, e.g., vegetation or driftwood.

f = Proximity to water intakes should be considered when pressure washing shoreline.

h = No action only if residual sheening is present.

i = No action only if the wetland fringes are impacted or access would result in unacceptable damage.

k = Passive collection only if viscosity is low enough to result in sorbent effectiveness.

Appendix IV: Disinfection Procedures for Invasive Species in Vessels and Water Wetted Equipment

Available online at www.rrt5.org/RCPACPMMain/RCPACPApendices/DisinfectionProcedures

APPENDIX IX: DISINFECTION PROCEDURES FOR INVASIVE SPECIES IN VESSELS AND WATER WETTED EQUIPMENT

Definitions

Vessel-The word vessel includes every description of watercraft or other artificial contrivance used or capable of being used as a means of transportation on water.

Water wetted equipment-Water wetted equipment refers to water wetted resources being utilized between infected water and uninfected waters.

Purpose

Aquatic invasive species are waterborne, non-native organisms, including plants, animals, and pathogens, that can threaten ecosystems into which they spread or are introduced. Aquatic invasive species can compete with native species for food and habitat, prey on native species and kill them through disease processes, disrupt ecosystem stability, impact water quality, impact commercial and recreational activities, affect property values, and cost millions of dollars in prevention and control. The long term impacts of invasive species on an ecosystem can easily exceed those of an oil spill.

Aquatic invasive species may be introduced via vessels and water wetted equipment that are from waters outside of the region, as well as vessels that have been used in more local, but separate, waterways. For example, viral hemorrhagic septicemia is a fish virus that is present in the Great Lakes, but is not yet present in most inland lakes. The movement of vessels and water wetted equipment between infected waters and uninfected waters may spread the virus.

Process

For the purposes of this RCP/ACP, the term Disinfection Procedures should be considered distinct from Decontamination Plan. The purpose of disinfection is to prevent the spread of invasive organisms that may be present on vessels or water wetted equipment into or out of the spill area; whereas, the purpose of decontamination is to remove oil or other contaminants after use in the spill area. Thus, disinfection should occur **before** vessels and water wetted equipment are used in the spill area as well as **after**, when they are demobilized from the area.

The Disinfection Group, under the oversight of the appropriate state environmental agency, U.S. Fish and Wildlife Service (USFWS), or local water resource manager is responsible for the implementation of the Disinfection Procedures.

At a minimum, all vessels and water wetted equipment, coming from either 1) a distinctly separate water (salt vs fresh water, a different water shed, an isolated waterbody etc...), or 2) coming from downstream of a dam or falls, will need to pass an inspection for the need for disinfection prior to being allowed into the water. This could be coordinated with the vessel safety inspection. A sample checklist is attached to the Disinfection Procedures, but this checklist may need to be tailored to specific threats related to the expected source areas for vessels and water wetted equipment. Following inspection, boats and equipment that could be carrying invasive species in any form must go through disinfection.

Disinfection areas will be established onsite during a spill response. The disinfection areas may be co-located with decontamination areas, staging areas, or vessel inspection areas. Disinfection areas must be configured to contain all wastewater for proper disposal. Disinfection wastewater must not be allowed to drain onto unpaved surfaces or into sewers, ditches, or waterways.

DISINFECTION PROCEDURES

The following techniques are acceptable for disinfection of vessels and water wetted equipment. Contact time is crucial for complete disinfection. Contact time reflects exposure of air, water, or disinfectant to a specific area, and not the total amount of time spent disinfecting. For example, if you are using 70° C water to disinfect your vessel, you must apply 70° C water to each area for one minute or longer (see options and procedures below from USFWS, Region 3).

Methods	Procedures	Positives	Negatives
Heat + air (Drying in hot sun)	30C (86F) 24 hrs minimum (time at Temp contact period crucial) (Exposure to Hot sun/air while dry)	Follow MSDS directions for health risk and use Personal Protective Equipment (PPE).	Time consuming Weather/Temperature criteria critical to reliable results
Heat + water Spray &/or immerse	50C (122F) contact time for 10 minutes (time at temp contact period crucial) (Large source of hot water needed)	Follow MSDS directions for health risk and use PPE.	Must maintain high water/contact; hotter than average tap water
Heat + water Spray &/or immerse	70C (158F) contact time for 1 minute (time at temp contact period crucial) (Large source of hot water needed)	Follow MSDS directions for health risk and use PPE.	Must maintain very high water/contact; much hotter than average tap water. Risk of Burns. Requires additional logistical support for steady supply of fuel.
Virkon Aquatic	Follow Product directions for Proper mixture and minimum contact time. (immerse in solution, Apply directly, or Spray-on with pressure washer and rinse)	Follow MSDS directions for health risk and use PPE.	Follow MSDS directions for health risks and use PPE) when mixing concentrate form. Chemical based
Quarternary Ammonium+Water *(family of products)	Follow Product directions for Proper mixture and minimum contact time. (immerse in solution, Apply directly, or Spray-on with pressure washer and rinse)	Follow MSDS directions for health risk and use PPE.	Chemical Based Follow MSDS directions for health risk and use PPE.
Chlorine + water	Min. 200 mg/liter water for 20 minutes (immerse in solution, Apply directly, or Spray-on with pressure washer and rinse/neutralize thoroughly)	Follow MSDS directions for health risk and use PPE.	Follow MSDS directions for health risk and use PPE. Highly corrosive.

An example equipment list for the disinfection station follows:

- ☐ Four steam pressure sprayers or disinfectant sprayers, depending on method
- ☐ 200 gallon diesel storage with secondary containment
- ☐ 100 feet of caution tape
- ☐ Six free-standing guide posts
- ☐ Two 55-gallon drums – open top with lid
- ☐ Two 55-gallon drums – open top with bung opening lid
- ☐ Eight packs of sorbent wipers (minimum 50 pads each)
- ☐ Two plastic buckets and two scrub brushes
- ☐ Two child wading pools
- ☐ Labels for drummed waste
- ☐ Four 50-foot garden hoses with variable spray nozzles
- ☐ Four 20-gallon plastic trash cans
- ☐ PPE for a minimum 4 person team (Face shields, Tyvek suits, PVC Gloves, booties, and respirators depending on cleaning chemicals)
- ☐ Vacuum truck for waste water recovery
- ☐ Absorbent boom
- ☐ Portable containment pad or other containment system
- ☐ One or more frac tanks or other storage containers to contain wastewater

Sample Checklist

The procedures in this document will focus on expectations of inspection criteria of vessels, vehicles and their trailers, as well as, equipment entering Regional Response Team 5 waters. The recommended inspections procedure is being implemented to ensure that invasive species do not enter the waterways of Region 5 and impact treatment infrastructure and threaten the ecosystem.

The vessel, trailer/vehicle and equipment inspection will include looking for water, debris or growth on or in any inspected area. Surfaces will also be touched to see if growth or mussels may be attached. The inspection should be completed the same way each time starting at one side and ending up at the other side.

Below are the recommended procedures for what to inspect.

Inspection Checklist

The following list of items comes from the Vessel Inspection Checklist and states what the Disinfectant team should be looking for:

- (a) **Vehicle Rear:** The vehicle bumper, tailgate or spare tire may have mud, grass, weeds or other debris on it.
- (b) **Trailer Structure, Railings and Spare Tire:** The trailer, railings and spare tire may have mud, grass, weeds, debris or standing water.
- (c) **Vessel Hull:** The vessel hull should be inspected for growth and debris. Growth may be visible if it has recently come from being in the water for an extended period of time. Small mussels attached to a boat can feel like sandpaper or sesame seeds.
- (d) **Transom:** The transom is at the back of the vessel that the engine is attached to. The transom may have several items of importance to inspection that mussels can attach to including the outdrive, trim tabs, transducers, bilge plug area and through hull fittings. Check the transom to make sure the surface is smooth and visibly clear of all debris and growth.
- (e) **Outdrive:** The outdrive is attached to the transom on stern drive vessels and the lower unit on outboard vessels. It has intricate parts that make it easy for mussels to attach, hide and grow. The inspector should feel and look for any signs of growth, debris or texture of sandpaper.
- (f) **Propeller/Shafts:** Mussels can attach and live on or around where the propeller attaches to the lower unit of drive shaft. Mussels can also attach to the shaft or connecting points of the vessel. These can be hard to see and should be inspected with a flashlight to verify if any mussels, debris or water is present.
- (g) **Trim Tabs:** Trim tabs are located on the lower portion of the transom and are usually metal plates that help stabilize the vessel while underway. The inspector should feel the corners, edges and look on the underside of the trim tabs for debris and growth.
- (h) **Transducers:** These are located on the transom or bottom of the hull near the stern of the vessel. They are used in conjunction with a computer to determine depth, speed and water temperature. Growth or debris can appear on them.
- (i) **Bilge Plug:** If the bilge plug is pulled when the vessel arrives at the lake, there should be no fluid or debris coming from it. By carefully putting your finger in the plug hole, it can be determined if debris is blocking water from exiting. If the bilge plug is not pulled, have the owner/operator pull the plug. If water exits, place the plug back it to prevent it from coming out.
- (j) **Through Hull Fittings:** Through hull fitting in all boats have the potential to store mussels in the right conditions. To check these fittings, look with a flashlight inside them and feel for irregularities.
- (k) **Bait Tank/Live Well/Compartments:** Bait tanks, live wells and compartments should be dry and clear of all water and debris. Some compartments do not drain completely due

to the way they are manufactured. Any debris in compartments is not acceptable. Common debris often found includes; fish scales, weeds, small pebbles and trash.

- (l) **Bilge:** The bilge is at the bottom of the inside stern of the vessel. It may not be visible in all boats due to various boat designs. The bilge should be clean from all water and debris.
- (m) **Anchor/Fenders and Line:** Anchors can have mud or debris on them. If an anchor, fender and lines attached have been in infested water for an extended period of time then mussels and debris can attach. Check these items for mud, growth and debris.
- (n) **Trolling Motor:** Trolling motors can pick up plants and debris while being used and must be inspected. Check these items for mud, growth and debris.

The Disinfectant Team will determine if vessel has been used locally or non-locally. If the vessel is local and there are no visible signs of mussels, plants, mud or other type of species, approve for launch, otherwise, disinfect.

Disinfectant Team will conduct a complete inspection for non-local vessels. If vessel passes inspection, approve for launch, otherwise, disinfect.

If Disinfectant Team determines vessel is a viable threat to the Great Lakes ecosystem and is not confident that disinfecting the vessel would protect the water quality, quarantining the vessel for 28 days is another option.

Sample Checklist:

Inspection: Check for **WATER, MUD, DEBRIS** or **GROWTH** and check all smooth surfaces for **“SANDPAPER”** feel.

Clear of Water, Debris and/or Growth: Check appropriate box below.

Yes No

- | | | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Vehicle rear |
| <input type="checkbox"/> | <input type="checkbox"/> | Trailer structure, railings, spare tire |
| <input type="checkbox"/> | <input type="checkbox"/> | Vessel hull |
| <input type="checkbox"/> | <input type="checkbox"/> | Transom |
| <input type="checkbox"/> | <input type="checkbox"/> | Outdrive |
| <input type="checkbox"/> | <input type="checkbox"/> | Prop/shafts (propeller on the engine) |
| <input type="checkbox"/> | <input type="checkbox"/> | Trim tabs (located on back of hull near engine. Not all vessels have them) |
| <input type="checkbox"/> | <input type="checkbox"/> | Transducers |
| <input type="checkbox"/> | <input type="checkbox"/> | Bilge plug pulled – no fluid or debris |
| <input type="checkbox"/> | <input type="checkbox"/> | Through hull fittings |
| <input type="checkbox"/> | <input type="checkbox"/> | Bait tank/live wells/compartments |
| <input type="checkbox"/> | <input type="checkbox"/> | Bilge (may not be visible) |
| <input type="checkbox"/> | <input type="checkbox"/> | Anchor/fenders and line |
| <input type="checkbox"/> | <input type="checkbox"/> | Boom |
| <input type="checkbox"/> | <input type="checkbox"/> | Skimmers |
| <input type="checkbox"/> | <input type="checkbox"/> | Other Response equipment |
- ☐ Your vessel has not cleared the inspection due to water and or debris in one or more areas. Your vessel will not be allowed on Region 5 waters for a minimum of 28 days and will be placed on a vessel quarantine list as of today. This zero tolerance has been established to ensure the safety of the water quality and its ecosystem.
- ☐ Your vessel will need to be disinfected before it can be cleared to enter Region 5 waters.
- ☐ OK to enter Region 5 waters.

Date

Staff (Print Name)

Appendix V: Chemical Use Guidelines

Available online at www.rrt5.org/RCPACPMMain/RCPACPAppearices/ChemicalUseGuidelines.aspx

APPENDIX V: CHEMICAL USE GUIDELINES

CHEMICAL USE CHECKLIST

Chemical Use Preapproval

Federal Region 5 Regional Response Team

Oil Spill Solidifier Preapproval- Contained within socks, booms, pillow Under the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300) the Regional Response Team (RRT) may authorize the use of oil spill control agents that are on the National Product Schedule. Pursuant to various presentations on the products, and the additional written materials that the Science and Technology Sub-Committee of the RRT has reviewed, the Region V RRT will allow the use of the following products under limited approval and specific conditions explained below:

- ALSOCUP
- Aqua N-CAP Polymer
- CIAgent
- WASTE-SET #3200
- WASTE-SET #3400

The Region 5 RRT has approved the use, in Region 5, of socks, booms, pads, pillows or other device which completely surrounds and contains one of the solidifier products listed above subject to the following conditions:

1. Application of the solidifier product must be done in a manner that does not allow the solidifier product to be released from the sock, boom, pad, or pillow; and
2. The sock, boom, pad, or pillow is not left in the environment for more than one week after contact with oil; and
3. The sock, boom, or pillow must be recovered from the water within one week of contact with oil or depletion of solidifying capacity and properly disposed of.
4. This preapproval does not include preapproved use in tribal or Department of Interior managed lands.

Conditions of approval for solidifier products:

- [NCP Subpart J - Main Page](#)
- [NCP Product Schedule](#)
- [NCP Technical Notebook](#)

Chemical Countermeasures Fact Sheet

The Chemical Countermeasures Fact Sheet describes the appropriate use of oil treatment products, which products may be used and under what circumstances approval is required.

Chemical Use Guidelines

- Compile Data

Spill Data — Responsibility: OSC

- Circumstances
- Time/date of incident
- Location
- Type of oil product
- Volume of oil release
- Total potential of release
- Type of release (instantaneous, continuous, etc.)

Characteristics of Spilled Oil(s) — Responsibility: OSC

- Specific gravity
- Viscosity

Weather and Water Conditions / Forecasts — Responsibility: SSC

- Air temperature
- Water conditions
- Water temperature
- Water depth

Oil Trajectory Information — Responsibility: SSC

- 48-hour surface oil trajectory forecast
 - Surface area of slick
 - Expected conditions of landfall
- 48-hour dispersed or chemically treated oil trajectory forecast
 - Oil movement in water column
 - Surface oil movement and expected landfall
 - Concentration of the dispersant/oil mixture in the water column

Chemical Characteristics and Application Equipment — Responsibility: OSC

Table 0.1: Chemical Characteristics

	Product 1	Product 2	Product 3
Chemical Name			
Trade Name			

Manufacturer			
When Available			
Location			
Characteristics			
Toxicity			
Effectiveness			
Reactions			
Applicability			
Flash point			
Amount Available			
Type of Containers			
Application Methods			
Benefits (reduce vapor; increase viscosity; etc.)			

Table 2 Transportation & Equipment

	Company 1	Company 2	Company 3
Name			
Location			
Equipment available			
Transportation of equipment			

Comparison of Effectiveness of Conventional

Methods vs. Use of Chemicals — Responsibility: US EPA, USCG, OSC, SSC, State(s)

- Containment at the source
- Burning

- Shoreline protection strategies
- Shoreline cleanup strategies
- Time necessary to execute response

Habitats and Resources at Risk — Responsibility: OSC, SSC

- Shoreline habitat type and area of impact
- Resources
 - Endangered/threatened species
 - Critical habitat for the above species
 - Waterfowl use
 - Shellfish
 - Finfish
 - Commercial use
 - Public use areas
 - Other resources of significance

Other Users of the Water: Nearby and Downstream — Responsibility: SSC

- Water supply, potable
- Water supply, industrial

Recommendations — Responsibility: US EPA, USCG, OSC, SSC, State(s)

Possible Options

- Do not use chemicals
- Use chemicals on a trial basis
- Disperse or chemically treat to maximum extent possible with accepted methods on available equipment

Other Recommendations/Rationale

TBD

Evaluation of Decisions — Responsibility: US EPA, USCG, OSC, SSC, State(s)

Will the application remove a significant amount of the slick from the surface of the water?

Can the extent or location of the shoreline impacts be altered in a positive manner?

TBD

Can the damage to endangered/threatened species, mammals, and waterfowl be lessened?

TBD

Will the damage to habitats and resources resulting from the chemical use be less than those resulting without the use?

TBD

If recreational, economic, and aesthetic considerations are a higher priority than natural resource considerations, what is the most effective means of their protection?

TBD

Monitoring of Chemical Use — Responsibility: OSC, State(s)

Records

- Chemical brand
- Equipment and methods used in application
- Dilution of chemical prior to application, if any
- Rate of application
- Times and area of application
- Wind and wave conditions during application

Effectiveness - Visual and Photographic Documentation

- Oil before and after chemical application
- Resurfacing of dispersed or chemically treated oil
- Sampling of the water beneath the oil slick and the oil/chemical combination to determine the level of the petroleum hydrocarbons in the water

Environmental Impacts – Visual and Photographic Surveys

- The extent of shoreline impact by chemically treated and untreated oil
- Mortality or abnormal behavior of fish, birds, or mammals
- Comparison of shoreline areas impacted by oil and oil/chemical mixtures
- Analysis of oil concentrations in sediments under chemically treated oil
- Investigation of water column organisms for signs of adverse impact due to chemically treated oil
- Collection and analysis of birds affected by chemicals or oil/chemical mixture

Public Health

- Sampling water supplies for petroleum and chemical constituents

Appendix VI: In Situ Burning of Oil

Available online at www.rrt5.org/RCPACPMMain/RCPACPAppearices/InSituBurning.aspx

RRT5 In-Situ Burning Annex

RRT5 In-Situ Burning Annex

PURPOSE

This annex contains the background information and guidance necessary to aid the Federal On-Scene Coordinator (FOSC) in their consideration of whether to allow the technique of in situ burning (ISB) as an oil spill countermeasure.

REFERENCES AND ADDITIONAL LINKS

- [National Contingency Plan \(NCP\)](#)
- [Regional Contingency Plans \(RCPs\)](#)
- [Region 5 Sub Area Plans](#)
- [Great Lakes Area Contingency Plan \(GLACP\) \(via Homeport\)](#)
- [Geographic Response Plans \(GRPs\) \(via Homeport\)](#)
- [RRT 5 Habitat Fact Sheets](#)
- [RRT 5 Incident Specific RRT Checklist \(IS-RRT\)](#)
- [NOAA Office of Response and Restoration - ISB](#)
 - [Special Monitoring of Applied Response Technologies \(SMART\)](#)
 - [Sample Site Safety Plan for ISB](#)
- [Options for Minimizing Environmental Impacts of Freshwater Spill Response](#)
- [Selection Guide for Oil Spill Response Countermeasures](#)
- [Characteristics of Response Strategies: A Guide for Spill Response Planning in Marine Environments](#)

RESPONSIBILITIES

For this annex Lead Federal Agencies (LFAs) provide leadership, expertise and authorities to respond to oil discharges.

LFAs:

The US EPA and Coast Guard are the FOSC for any oil discharges in Region V that require emergency removal actions with the exception of incidents that:

- Occur from vessels or facilities owned, operated, or controlled by the Department of Defense (DOD) or Department of Energy (DOE)
- Are *non-emergency* removal actions of oil discharges from vessels or facilities owned, operated, or controlled by federal agencies *other than* the DOD or DOE

RRT5 In-Situ Burning Annex

SCOPE

The RRT has adopted this annex applicable to spill responses under the direct oversight of a FOSC. This annex authorizes the FOSC to use ISB as a response countermeasure to an oil discharge when he or she determines it is appropriate after key members of the RRT have been consulted and concur. This annex is subject to individual state laws and in the case of the use of burning agents during ISB by the NCP (40 CFR 300.910).

In order to minimize environmental impacts and facilitate effective cleanup of an oil spill, responders have a limited number of techniques available to them. These include mechanical methods, the use of certain alternative countermeasures, and ISB. Under certain specific conditions, ISB may offer a logistically simple, rapid, inexpensive, and relatively safe means for reducing impacts of an oil spill. Moreover, because a large portion of burned oil is converted to gaseous combustion products, the need for collection, storage, transport, and disposal of recovered material can be substantially reduced. ISB may be able to remove a large amount of spilled oil before the spreading and drifting of spilled oil fouls shorelines and threatens wildlife. In certain circumstances, such as oil spilled in ice conditions, burning may be the single viable response technique.

REQUIREMENTS

The requirements of this annex apply only to responses under the direct oversight of an FOSC, but its general application is strongly encouraged. The RRT acts as the regional coordinating body for response actions.

- 1) The appropriate state's approval is always required. In Region 5, the use of ISB as a response tool will be subject to State law and policy. When burning agents are used this is a requirement of the NCP. **(See attachments for appropriate state(s) approval processes).**
- 2) In accordance with (IAW) the NCP, US EPA must concur with the FOSCs recommendation to authorize the use of ISB. When burning agents are used this is a requirement of the NCP.
- 3) As a natural resource trustee, the Department of Interior (DOI) should be consulted with the decision to conduct ISB during a spill response overseen by a FOSC. The responsibility of concurrence is given to DOI as a federal natural resource trustee and because of its authorities, and potential assistance to the FOSC, regarding the Endangered Species Act (ESA) and potential representation of federally recognized tribal governments.
- 4) As a natural resource trustee, the Department of Commerce (DOC)/National Oceanic and Atmospheric Administration (NOAA) should be consulted when considering ISB. Notification should be from the RRT Co-Chairs via the DOC RRT member. NOAA Scientific Support Coordinator (SSC) should be contacted to assist in the decision-making process and may provide resources at risk.

RRT5 In-Situ Burning Annex

- 5) Tribal agency official(s) must be consulted on any decision to use ISB when a burn would reasonably be expected to impact those designated areas of tribal interests.
- 6) Approval must also be in concert with Canadian federal government officials, adjoining states and/or provinces, and local officials with approving jurisdictions, where deemed appropriate or necessary.

RESPONSE ACTIVITIES

FOSC Priorities

- Responder safety
- Public safety and hazard mitigation
- Public notification
- Environmental cleanup/restoration
- Proper transportation, storage and disposal of contaminated debris & waste

Considerations

ISB, for the purposes of this annex, is defined as the use of an ignition source to initiate the combustion of spilled oil that will burn due to its intrinsic properties and does not include the adding of a burning agent to sustain the burn.

The use of ISB in this annex is not for disposal purposes; rather, it is a response technique to be employed when an oil spill is virtually uncontrolled with the potential to spread and contaminate additional areas. It should also be considered as a cleanup technique for oiled habitats such as wetlands, where it is used in conjunction with other cleanup methods.

FOSC Tools

The following documents contain useful, detailed information to assist the FOSC in the use of ISB as an oil spill countermeasure.

- [Region 5 Sub Area Plans](#)
- [GRPs \(via Homeport\)](#)
- [Special Monitoring of Applied Response Technologies \(SMART\)](#)
- [RRT 5 IS-RRT Checklist](#)
- [RRT 5 Habitat Fact Sheets](#)
- [Options for Minimizing Environmental Impacts of Freshwater Spill Response](#)
- [Selection Guide for Oil Spill Response Countermeasures](#)
- [Characteristics of Response Strategies: A Guide for Spill Response Planning in Marine Environments](#)
- [RRT5 Website Planning and Response Tools](#)

RRT5 In-Situ Burning Annex

NOTIFICATION

- Request IS-RRT
 - Conduct emergency consultations with trustee agencies as applicable
- Ensure notification to appropriate stakeholders
- Coordinate public notifications

ASSETS AND RESOURCES

The following are able to support response to hazardous substance incidents, and should be considered as potential response resources:

- [USCG Ninth District Response Advisory Team \(DRAT\)](#)
- [USCG Atlantic Strike Team \(AST\)](#)
- [US EPA Environmental Response Team \(ERT\)](#)
- [US EPA Airborne Spectral Photometric Environmental Collection Technology \(ASPECT\)](#)
- [National Interagency Fire Center \(NIFC\)](#)
- [Interagency Modeling and Atmospheric Assessment Center \(IMAAC\)](#)
- For local subject matter experts see references

ENCLOSURES

1. State permits and/or approval process
 - a. Illinois EPA OER Request to Burn
2. [IS-RRT Checklist](#)

IEPA OER REQUEST TO BURN

IEMA Incident #: H-20_ _ _ _ _ (Must have an incident number)

Person requesting BURN PERMIT: _____

Person represents (company): _____

Date of request: _____ Time: _____

Amount to be burned: _____

Reason: _____

Location: _____

☐ Check if same as reported spill location:

Land owner permission: ☐ YES ☐ NO

Mines & Minerals permission: ☐ YES ☐ NO

Complete during daylight: ☐ YES ☐ NO

Personnel on scene until burn is complete: ☐ YES ☐ NO

Notified local fire protection district: ☐ YES ☐ NO

Distance to nearest Public Road: _____ Direction: _____

Distance to nearest residential home(s): _____ Direction: _____

Wind direction: _____ Speed: _____ mph

Any special conditions: _____

GRANTED ☐

DENIED ☐

Person Authorizing Burn Permit



Incident-Specific RRT Checklist

Incident Specific RRTs are formed from standing team members when the RRT is activated for a response. Participation by member agencies will relate to the technical nature of the incident and its geographic location. Activities are determined by the operational requirements of the response to a specific incident. The appropriate level of activation shall be determined by the designated RRT chair for the incident. This completed checklist should be attached to the incident case file.

- ☐ Required members on call (Normally, co-chairs and coordinators, affected member and state agencies):

--

- ☐ Date/ Time:

--

- ☐ Prepared by:

--

- ☐ Summary of incident (A brief synopsis of the who/what/where/when/why/how of the incident):

--

- ☐ Current organization and actions taken:

--

R E G I O N A L R E S P O N S E T E A M 5

FOSC

☐ Actions/ Approval requested by FOSC to RRT:

RRT

☐ Decision/Action/ Recommendation on request from FOSC:

☐ Rationale:

☐ ESA Initial Consultation:

Applicable

☐ Completed with:

☐ USFWS

Point of Contact:

☐ NOAA

Point of Contact:

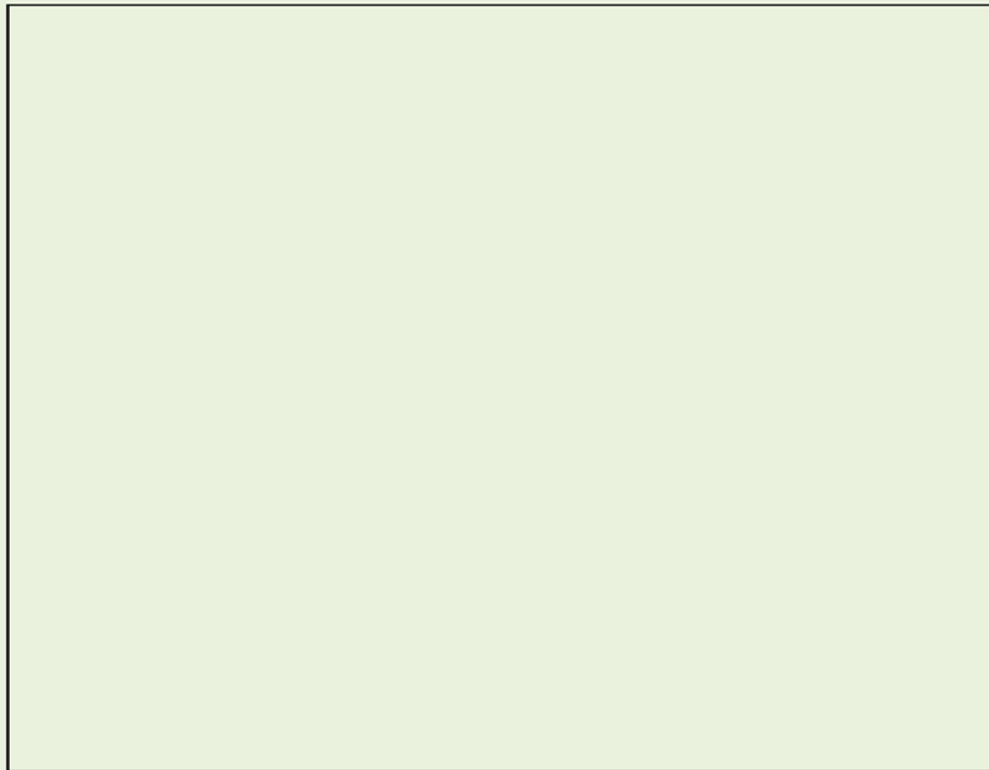
☐ State(s)

Point(s) of Contact:

R E G I O N A L R E S P O N S E T E A M 5

Enclosure 2.

☐ Additional Notes



SIGNATURES

Member/ Agency:

Concur:

Non-Concur:

R E G I O N A L R E S P O N S E T E A M 5

Appendix VII: Fish and Wildlife Annex

Available online at www.rrt5.org/RCPACPMMain/RCPACPApPendices/FishWildlifeAnnex.aspx

APPENDIX VII: FISH AND WILDLIFE ANNEX TO THE U.S. EPA REGION 5 REGIONAL/AREA CONTINGENCY PLAN

Prepared by U.S. Fish and Wildlife Service Region III
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November 1996; Revised June 2008

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INTRODUCTION

Part I of this Annex provides guidance for spill response planning and Part II provides guidance for spill response activities.

Objectives of the Fish and Wildlife and Sensitive Environments Plan

Agencies with fish and wildlife responsibilities need to be informed of the course of events during a spill and first responders need to be aware of environmentally sensitive areas in the vicinity of the spill. The purpose of this Fish and Wildlife Annex is to provide information that will allow spill responders to quickly recognize threats to fish, wildlife, and their habitats, (i.e. sensitive environments) and to minimize the effects of both the spill and response activities on these natural resources.

Overview of Fish and Wildlife Response Issues

The On-Scene-Coordinator (OSC) should promptly notify natural resource trustees of spills. The OSC should also coordinate response activities with the appropriate natural resource trustees, including the selection of a removal action. When the OSC becomes aware that a release may affect any endangered or threatened species, or their habitats, the OSC shall consult with the appropriate natural resource trustee. For Federally listed endangered or threatened species the appropriate trustee is the Department of the Interior (DOI), acting through the U.S. Fish and Wildlife Service (USFWS). The appropriate USFWS contact for each State is included in this Annex.

The designated State official normally assumes responsibility for notifying the State trustee of natural resources affected/potentially affected by the incident. However, the OSC should not hesitate to contact the State wildlife agency independently for technical assistance. Appropriate State fish and wildlife agency contacts are listed in this Annex.

For inland waters, the fish and wildlife resources for which the Federal government is primarily responsible include migratory birds and Federally listed endangered and threatened species. Migratory birds include most species of wild birds except certain introduced species and nonmigratory game birds. Federal agencies also are responsible for wildlife on Federally owned land. The States have primary responsibility for all other species of wildlife and fish, as well as some shared responsibility for migratory birds and Federally listed endangered and threatened species. Federally listed endangered and threatened species are listed by county in this Annex.

Lands (Federal, State, and locally owned) that should be presumed to contain high quality fish and wildlife habitat include parks, designated wildlife areas and refuges, and forests. Most surface waters and wetlands should also be presumed to be high quality fish and wildlife habitat. Spills which impact large areas of surface water will likely threaten protected species of wildlife. Lands designated as critical habitat under provisions of the Endangered Species Act of 1973 (ESA) are specific land parcels and are identified in this Annex.

The seasonal timing of a spill may affect the degree of damage to fish and wildlife resources. For example, spills to some surface waters will pose a greater threat to waterfowl during the spring and fall migration periods. In the spring, oiled waterfowl (and other wildlife) may also return to their nests and contaminate eggs or chicks, thus multiplying the impact. A very minute amount of oil on an egg can be enough to kill the developing embryo. Waterfowl and other wildlife that

become oiled can transport oil residues to distant locations and impact wildlife concentration areas several miles away.

An oil spill affecting wildlife can involve agencies such as the USFWS and State wildlife agencies, private wildlife rehabilitators such as Tri-State Bird Rescue or International Bird Rescue Research Center (IBRRC), and volunteers. Wildlife rehabilitation activities may last well beyond completion of the cleanup. For those States which have developed a trained and organized network of volunteer wildlife rehabilitators (<http://www.tc.umn.edu/~devo0028/contact.htm>), information on how to mobilize the network is presented in this Annex. A general list of appropriate wildlife agency contacts, and other wildlife contacts, is also included.

The Occupational Safety and Health Administration (OSHA) requires that those responding to spills be properly trained and that the hazards of the spilled material be known. This can result in wildlife not being rehabilitated if the spilled materials are unknown or if they present an unacceptable health risk to rehabilitators. There will also be delays in wildlife rehabilitation if volunteers have not been trained. USFWS resources available for spill response are generally very limited. The assistance of State wildlife agencies and professional and volunteer wildlife rehabilitators will be critical to the success of any wildlife cleaning and rehabilitation operation.

PART I. PLANNING GUIDANCE FOR SPILL RESPONSE

1.0 REGULATORY AND STATUTORY AUTHORITIES AND OBLIGATIONS

1.1 Federal Statutory Regulations

Authority and guidance for wildlife response following oil spills is contained in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP 1968) which recognized the need to utilize Federal agency expertise during responses to oil spills and releases of hazardous substances.

1.1.1 Department of the Interior, U.S. Fish & Wildlife Service

The Department of the Interior (DOI) has trustee responsibility for migratory birds under the Migratory Bird Treaty Act (16-USC 703-722) and for threatened and endangered species under the Endangered Species Act (16 USC 1531-1544). The DOI and Department of Commerce share trustee responsibility for anadromous fish under the Anadromous Fish Conservation Act (16 USC 7571-757f).

As a manager of trust natural resources delegated under DOI, the U.S. Fish and Wildlife Service (USFWS) has the responsibility to conserve, enhance, and protect fish and wildlife and their habitat. The USFWS role during prespill planning, "removal" activities, and "preassessment" activities has been enhanced and formalized by the new responsibilities identified in the Oil Pollution Act of 1990 (OPA) and the mandated amendments to the Federal Water Pollution Control Act (FWPCA) ("Clean Water Act") which revised the NCP.

Specifically, USFWS personnel are responsible for protecting trust natural resources from the threat of injury or injury caused by a discharge of oil. Additionally, they are responsible for assisting in the identification of sensitive environments in advance of discharges, assisting the OSC during the response phase, assessing injuries, determining damages, and overseeing wildlife rehabilitation during actual discharges. (For more specific roles and responsibilities of the USFWS during a spill, please refer to Part II, Section 1.2.1.).

The following list briefly summarizes the primary authorities which direct the USFWS in carrying out its responsibilities related to oil spill response and contingency planning:

1.1.1.1 Migratory Bird Treaty Act

Prohibits the taking or possession of any migratory birds, except as permitted by certain regulations which are enforced by the USFWS. Prosecutions under this law apply to oil spill situations which result in migratory bird mortality. Rehabilitation of oiled migratory birds is also subject to permitting regulations under this Act.

1.1.1.2 Endangered Species Act

Provides for the conservation of threatened and endangered species of fish, wildlife, and plants. The USFWS has lead authority for the Secretary of the Interior within the geographic area covered by this Area Plan to prohibit unauthorized taking or possession of Federally listed endangered species (Also see Part I, Section 4).

1.1.1.3 Bald and Golden Eagle Protection Act

Provides for the protection of the bald eagle and the golden eagle by prohibiting the taking, possession and commerce of such birds. The USFWS has lead authority for the Secretary of the Interior within the geographic area covered by this Area Plan to prohibit unauthorized taking or possession of bald or golden eagles.

1.1.1.4 National Wildlife Refuge System Administration Act

Provides directives for the administration and management of all areas (lands and waters) in the National Wildlife Refuge System. The USFWS is responsible for ensuring that all uses of these areas are compatible with the major purposes for which such areas were established.

1.1.1.5 Anadromous Fish Conservation Act

Authorizes the Secretary of the Interior to enter into cooperative agreements with the States and other non-Federal interests for conservation, development, and enhancement of anadromous fish, including those in the Great Lakes.

Also authorizes the USFWS to conduct studies and make recommendations to U.S. EPA concerning measures for eliminating or reducing polluting substances detrimental to fish and wildlife in interstate or navigable waters, or their tributaries.

1.1.1.6 Fish and Wildlife Coordination Act

Requires consultation with the USFWS and State fish and wildlife Agencies in instances in which diversions or other modifications to water bodies are proposed, authorized, permitted, or licensed by a Federal agency under a Federal permit or license. It recognizes the vital contribution of fish and wildlife resources to the Nation and requires coordination and equal consideration of fish and wildlife conservation with other water resources development objectives.

1.1.1.7 Oil Pollution Act of 1990

Requires the USFWS to assist in the development of Area Contingency Plans, including fish and wildlife response plans; assist in preparation of damage assessment regulations; and, if necessary, conduct natural resource damage assessments.

1.1.1.8 Comprehensive Environmental Response Compensation and Liability Act (Superfund)

Requires the USFWS to protect and restore trust resources injured by uncontrolled releases of hazardous materials. Authorizes the USFWS to conduct assessments to establish injury and the dollar equivalent of that injury for collection of damages from parties responsible for releasing hazardous materials.

1.1.2 Department of the Interior, National Park Service

1.1.2.1 National Park Service Organic Act (16 U.S.C. 1 et seq.) Establishes the National Park Service within the Department of the Interior and directs the NPS to “... *promote and regulate the use of the Federal areas known as national parks, monuments, and reservations hereinafter specified... to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.*”

1.1.2.2 General Authorities Act of 1970 (16 U.S.C. 1a-1 and 1a-8) Combines all areas administered by the NPS in one National Park System and amends the Organic Act to specify that the National Park System shall include any area of land and water now or hereafter administered by the Secretary of the Interior through the NPS for park, monument, historic, parkway, recreational, or other purpose.

1.1.2.3 The National Park Resources Protection Act of 1996 (16 USC 19jj) Any person who causes the loss of, or injures a park system resource is liable to the United States for response costs and damages.

1.1.2.4 Wilderness Act (Public Law 88-577) Section 4(c) States that “...within any wilderness area designated by this Act and, except as necessary to meet *minimum requirements* for the administration of the area for the purpose of this Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no

temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area.

1.1.2.5 National Historic Preservation Act In 1997, the National Response Team completed a Programmatic Agreement on Protection of Historic Properties during Emergency Response under the National Response Plan. This agreement provides an approved procedure to meet the consultation requirements of the regulations for implementing Section 106 of the National Historic Preservation Act.

1.1.3 Department of the Interior, Bureau of Indian Affairs

[To be provided]

1.1.4 Department of Commerce, National Oceanic and Atmospheric Administration

[To be provided]

1.1.5 Department of Agriculture, Forest Service

[To be provided]

1.2 State Regulations

[To be provided]

2.0 NOTIFICATION OF NATURAL RESOURCE TRUSTEES

(NCP sec. 300.300(b)(c)(d), NCP sec. 300.210(c)(4)(ii)(G))

When an oil spill occurs, any person in charge of a vessel or facility, or any other person, shall immediately notify the National Response Center (NRC) of the discharge at 1-800-424-8802. (Alternatively, if direct notification to the NRC is not possible, notification may be made to the U.S. Coast Guard or the U.S. EPA predesignated OSC, or the nearest Coast Guard Unit.) The State or Federal OSC, when notified by the NRC, should then notify the Office of Environmental Compliance (OEPC) and the State natural resource agencies. In addition, contacts may be made with the local USFWS Ecological Services Field Office. Primary contacts for the USFWS and State Natural Resource Agencies are listed in Part II, Section 3. Only one contact per agency is necessary; the persons initially contacted will notify other personnel within their respective agencies, such as law enforcement staff and refuge managers. The USFWS will provide responders with information concerning the presence of trust natural resources, as well as technical assistance concerning the effects of oil on these resources. The USFWS may help coordinate wildlife recovery and rehabilitation efforts in conjunction with the State fish and wildlife agencies.

3.0 MECHANISMS FOR TIMELY IDENTIFICATION OF PROTECTION PRIORITIES

(NCP 300.210(c)(4)(ii)(B))

3.1 During a Spill

A threat to fish, wildlife, or important habitat may be reported by any Federal, State, Local agency, or individual with pertinent information. During a spill, the timely identification of protection priorities for fish, wildlife, and their habitats shall be accomplished through coordination between the representatives of the USFWS, the State agency with responsibility for fish and wildlife resources, and the OSC or his representative. This coordination shall be initiated by the party that first becomes aware of a threat to high priority natural resources.

Some natural resources that, at any given time or location, may warrant a high level of protection include the following categories of lands and species:

- (a) Federally listed endangered and threatened species, designated critical habitat, and other habitats known to be utilized by these species;
- (b) migratory birds including waterfowl, raptors, songbirds, and most other bird species and their habitats;
- (c) State listed endangered and threatened species and their habitats;
- (d) designated areas of high quality fish and wildlife habitat such as Federal and State wildlife refuges and wildlife management areas, State and Federal fish hatcheries, natural area preserves, parks, and forests;
- (e) surface waters in general including rivers and streams, ponds and lakes, and wetlands;
- (f) other species of fish and wildlife (game and non-game) and their associated habitats.

Information about the location of these environmentally sensitive areas will be developed by the Area Committee as part of the spill planning process. Knowledge of these areas may need to be refined or augmented during an actual spill. Sources of information about environmentally sensitive areas may include commercially available Local maps and State atlases, National Wetland Inventory maps, U.S. Geological Survey quadrangle maps, maps developed by the Area Committee, maps and information developed as part of facilities plans, maps and information developed by various government agencies, and computer GIS information. Detailed computerized GIS maps of sensitive areas that could be accessible from the field using laptop computers would be beneficial to response personnel.

3.2 Prior to Application of Chemical or Other Countermeasures

(NCP 300.210 (c)(4)(ii)(C) and (D))

The OSC must obtain the concurrence of the Department of the Interior (DOI) before use of chemical countermeasures that could be destructive to fish, wildlife, or their habitats (chemical dispersants, emulsifiers, cleaning agents, agents to accelerate burning, etc.). The OSC must obtain concurrence from DOI before an in-situ burn countermeasure may be implemented. Containment and removal should be the first priority countermeasures.

Prior to response activities in wetlands and other sensitive environments, especially operations involving heavy machinery, the OSC should coordinate with the USFWS and State fish and wildlife agency. Identification of areas sensitive to physical modification or perturbation will have been identified to the extent possible by the Area Committee. In general, these will include the same areas identified as sensitive environments. The location of disposal and staging areas may require refinement during a spill, and this planning should be coordinated with the USFWS and State fish and wildlife agency.

4.0 THREATENED AND ENDANGERED SPECIES

4.1 Federally Threatened and Endangered Species Within U.S. EPA Region 5

Threatened and endangered (T&E) species inhabit, or live near, almost every body of water in the Region. USFWS Field Offices provide an annually-updated list of Federal T&E species, by county.

Federal and State listed T&E species and their designated critical habitat(s) (Federal) are given high priority for fish and wildlife protection. The Federally protected species that reside within U.S. EPA Region 5, and their habitat descriptions, are listed at:

http://www.fws.gov/midwest/Endangered/lists/cty_indx.html

4.2 Endangered Species Act of 1973

The ESA requires Federal agencies whose actions may affect a listed species or their critical habitat to consult with the USFWS regarding the proposed action. OPA and CERCLA require the U.S. EPA to develop contingency plans for inland areas for accidental discharges of oil and other hazardous materials. Implementing these mandates incurs responsibility under the ESA because (1) development and approval of potential response activities is a Federal action subject to the consultation requirements of section 7(a)(2) of the ESA; and (2) if it is determined that actual spill control methods to be used during OPA/CERCLA-mandated activities may adversely affect Federally listed species, then appropriate actions to minimize such effects must be incorporated into Area Plans.

4.2.1 Section 2 - Purpose

Fish, wildlife, and plant species have aesthetic, ecological, educational, historical, recreational, and scientific value to the U.S.; some species have become extinct or are threatened with extinction. Section 2 of the ESA describes the purposes of the Act as:

1. Providing a means to conserve the ecosystems upon which endangered and threatened species depend
2. Providing a program for the conservation of such species
3. Taking steps to achieve purposes of existing treaties and conventions affecting wildlife, fish, and plants

4.2.2 Section 3 - Definitions

Section 3 of the ESA provides definitions for the purposes of the Act. Following are definitions that may be pertinent to this Fish and Wildlife Annex:

Action describes all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the U.S.

Biological Opinion is a document stating the opinion of the USFWS, as to whether or not a Federal action is likely to jeopardize the continued existence of a listed species, or result in the destruction or adverse modification of its critical habitat.

Critical Habitat is habitat that has been determined to be critical to the conservation of the species. It has legal standing and is protected under the ESA just as the species is. This must be published in the Federal Register and is subject to public review.

Endangered Species means any species which is in danger of extinction throughout all or a significant portion of its range.

Essential Habitat is habitat needed by a species to survive or recover, however, it is not officially designated as "critical habitat". Essential habitat is not a synonym for critical habitat.

Fish or wildlife means any member of the animal kingdom, including without limitation any mammal, fish, bird, amphibian, reptile, mollusk, crustacean, arthropod or other invertebrate, and includes any body part, product, egg, or offspring thereof, or the dead body or parts thereof.

Plant is described as any member of the plant kingdom, including seeds, roots, and other parts.

Proposed species is any species of fish, wildlife, or plant that is proposed in the Federal Register to be listed under Section 4 of the ESA.

Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct".

Harass is further defined as an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering.

Harm is further defined as an act which actually kills or injures wildlife. Such acts may include significant habitat modification or degradation when it actually kills or injures wildlife by significantly impairing essential behavioral patterns including breeding, feeding or sheltering.

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

4.2.3 Section 7 - Interagency Cooperation

Section 7(a)(1) requires Federal agencies to use their authorities to further the conservation of listed species. Section 7(a)(2) prohibits Federal agencies from undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or modify critical habitat. For additional guidance, see the July 2001 Memorandum of Agreement Regarding Oil Spill Planning and Response Activities Under the Federal Water Pollution Control Act's National Oil and Hazardous Substances Pollution Contingency Plan and the Endangered Species Act (<http://uscg.mil/d5/msafety/rrt/rcp/ADMIN/ESAindex.html>).

4.2.4 Section 9 - Prohibited Acts

This section of the ESA prohibits take (see definitions, Part 1 Section 2.2.2) of listed threatened or endangered species or alteration of critical habitat. An incidental take statement provided for in Section 7 constitutes an exemption from the Section 9 prohibition against take. It applies to the Federal action agency as well as to the permit applicant.

4.2.5 Section 10 - Exceptions

Section 10 of the ESA provides for exceptions to the Section 9 prohibitions. The USFWS can issue permits to take listed species for scientific purposes, or to enhance the propagation or survival of listed species. The USFWS can also issue permits to take listed species or modify habitat that is incidental to otherwise legal activities, such as that provided through the Section 7 process.

5.0 POTENTIAL ENVIRONMENTAL EFFECTS FROM RESPONSE ACTIVITIES

(NCP sec. 300.210(c)(4)(ii)(C))

Removal actions or countermeasures may have adverse effects on fish and wildlife, their habitats, as well as other sensitive environments. In most situations it will be important that the advantages and disadvantages of various removal or countermeasure techniques be carefully evaluated to ensure the achievement of a net environmental benefit.

The following is a brief description of adverse effects of various actions associated with oil spill cleanup:

<u>Countermeasure/Response</u>	<u>Potential Adverse Effects</u>
1) No removal	a) excess oil would remain in habitat indefinitely; b) residual oil may be naturally weathered, but may be toxic to biota and would cause habitat degradation
2) Protective/sorbent, boom deployment	a) excess oil would remain in habitat indefinitely; b) residual oil may be naturally weathered, but may be toxic to biota and would cause habitat degradation
c) Protective/sorbent, boom deployment + mechanical pumping/skimming	a) potential physical disturbance of habitat/biota; b) resuspension/dispersion of oiled sediments
d) In-situ burning	a) smoke plume air quality concerns; b) riparian habitat may be permanently or temporarily damaged
e) Mechanical pumping/skimming	a) potential physical disturbance of habitat/biota; b) resuspension/dispersion of oiled sediments

Based on the above, the following generally applicable prioritized countermeasure and removal actions may be recommended:

<u>Countermeasure/Response</u>	<u>Potential Adverse Effect(s) Minimized</u>
1) Booms	a) physical disturbance of sensitive areas/habitats b) disturbance, illegal taking of fish and wildlife c) limited wildlife contact with cleaning/ bioremediation agents
2) Mechanical pumping	a) physical disturbance of sensitive areas/habitats b) limited wildlife contact with cleaning/ bioremediation agents
3) Mechanical	a) limited wildlife contact with skimming agents cleaning/ bioremediation
4) In-situ burning	a) physical disturbance of sensitive areas/habitats b) limited wildlife contact with cleaning/bioremediation agents

Movement/transport of oiled debris to the following habitats may pose a substantial threat to fish and wildlife and sensitive environments:

1. Riverine backwaters
2. Wetlands
3. Fish/shellfish spawning/nursery areas
4. Waterfowl/migratory bird foraging/breeding areas

To completely reduce risk to sensitive resources, oiled debris should not be placed in such habitats.

6.0 COUNTERMEASURE EVALUATION AND METHODS TO MINIMIZE THE IMPACTS OF RESPONSE ACTIVITIES

(NCP 300.210 (c)(4)(ii)(B-D))

Section 300.210 (c)(4)(ii)(B-D) of the NCP mandates that the Fish and Wildlife Annex provide a mechanism for expeditious evaluation and appropriate consultations on the effects to fish and wildlife, their habitat, and other sensitive environments from the application of various countermeasures.

Among other considerations, decisions regarding appropriate countermeasures should take into account the relative impact of various response methods on fish and wildlife and sensitive areas. Informed decisions can be made on the deployment of appropriate countermeasures through consulting with the appropriate natural resource agency for sensitive area information and by utilizing the spill response and sensitive area guidance in contingency plans. When deciding on an appropriate response method, the most important considerations are the efficient removal of the oil threat and the effective protection of essential habitats.

Federal law prohibits the use of a chemical to control oil on water, unless specifically authorized by a Federal OSC (FOSC). The FOSC may authorize use of any chemical product if its use is necessary to prevent or substantially reduce a hazard to human life. In situations where a human hazard is not present, the OSC must receive the concurrence of the RRT co-chair, the RRT representative(s) of the affected State(s) and the DOI before authorizing the use of a chemical product to control oil on water. The OSC and/or responsible party must also consult the appropriate Federal and State natural resource trustees and land management agencies in regard to the following concerns:

- (a) physical disturbance of wildlife, their habitat, and other sensitive areas;
- (b) illegal or inadvertent taking of live fish and wildlife or disturbance of carcasses by response personnel;
- (c) the use of cleaning or bioremediation agents in fish and wildlife habitat and environmentally sensitive areas;
- (d) the movement of oiled debris into fish and wildlife habitat and other sensitive environments.

Many of the issues dealing with appropriate response methods will be addressed in detail in Sub-Area Planning. Response sections of Sub-Area Plans may include:

- "Identification of specific areas of concern throughout the subarea, pre-planning for the materials most commonly spilled, and the locations where spills are most likely to occur;

- "Response methods for habitats and sensitive areas using the API/NOAA guidance, Options for Minimizing the Environmental Impacts of Freshwater Spill Response;
- "Pre-approval of appropriate removal actions, including the use of chemicals and dispersants, in accordance with 40 CFR 300.900-920, Subpart J - Use of Dispersants and Other Chemicals; and
- "Locations of access points, staging areas, and boom anchor points."

7.0 MONITORING PLANS TO EVALUATE THE EFFECTIVENESS OF REMOVAL ACTIONS OR COUNTERMEASURES

(NCP 300.210 (c)(4)(ii)(E))

Formal quantitative monitoring by the USFWS will be done as required on a case-by-case basis. The USFWS may rely in large measure on the information developed by State agencies because formal quantitative monitoring on the part of the USFWS may not always be feasible on a routine basis.

Specific monitoring plans to evaluate the effectiveness of different countermeasures or removal actions on wildlife may be developed in the sub-area plans. The effectiveness of the removal action or countermeasure, with regard to wildlife, will be judged on the basis of the welfare of fish and wildlife remaining in the affected area after cleanup. When no new animals are becoming fouled with oil or otherwise being injured by the spill or countermeasures, the cleanup will have been successfully completed.

The assessment of aquatic biota will, in some instances, be left to the State environmental agency or State fish and wildlife agency. Evaluation of spill effects on fish and wildlife, during and after cleanup, will be the responsibility of both the USFWS and the State fish and wildlife agency.

8.0 PLANNING FOR THE ACQUISITION AND UTILIZATION OF NECESSARY FISH AND WILDLIFE RESPONSE CAPABILITIES

(NCP sec. 300.210(c)(4)(ii)(F))

8.1 Overview

The USFWS and State natural resource agency have the responsibility to oversee spill response activities being conducted relative to their effects on fish and wildlife resources. These oversight responsibilities are coordinated with the OSC. In some instances, the Federal and State agencies will participate in activities such as hazing, capture, relocation, and release of wildlife. Those natural resource agencies, however, typically do not conduct treatment of injured trust resources. The USFWS and State natural resource agency(ies) may recommend that the responsible party(ies) or OSC (in the case of an unknown or uncooperative responsible party) contract with an experienced Qualified Wildlife Rehabilitator (QWR). In all cases where a QWR is utilized, the USFWS and State natural resource agencies will maintain an oversight role. Oversight responsibilities include, but are not limited to, the notification of a QWR, the supervision of deterrence, collection, handling, proper veterinary care, provisions for adequate rehabilitation

facilities, assurance that proper cleaning procedures are being followed, wildlife release, review of appropriate permits, review of record keeping practices, and identifying appropriate disposition of carcasses to labs and evidence storage.

A successful rehabilitation effort depends on proper planning, management and equipment, experienced response personnel and trained volunteers. Effective rescue and rehabilitation of contaminated animals requires expert knowledge and experience in the areas of volunteer and staff training, human health hazard recognition, liability issues, disposal of wastewater, and media relations. Wildlife rehabilitation also requires specialized medical expertise and stockpiles of specially designed equipment.

Therefore, consultation and coordination with Federal, Tribal, and State natural resource agencies during both pre-spill planning and spill response is essential to adequately identify, understand and address natural resource concerns.

8.2 Permit Requirements

(NCP sec. 300.210(c)(4)(ii)(G))

Federal and State permits are required to collect, transport, possess, rehabilitate, euthanize, release, or band migratory birds and threatened and endangered species.

8.2.1 Federal Permits

If rescue and rehabilitation efforts are deemed to be necessary and worthwhile, the following Federal permits may apply:

8.2.1.1 Migratory Bird

Banding or Marking: 50 CFR 21.22. A permit is required before any migratory bird is captured for the purpose of banding or marking. Official bands are issued by the U.S. Geological Survey (USGS) Biological Resources Division (BRD) Bird Banding Laboratory (BBL) for this purpose. Any rehabilitation group that participates in the wildlife response and bands birds is required to possess this permit.

Special Purpose: On November 26, 2003, the USFWS established a new category of migratory bird permit, namely bird rehabilitation (50 CFR Parts 17, 21 and 22). Rehabilitation permits take the place of the old special use permits for rehabilitation by specifically authorizing migratory bird rehabilitation, including rehabilitation of migratory bird species listed as threatened or endangered under the Endangered Species Act. The new permits, applicable to approximately 2500 bird rehabilitators nationwide (veterinarians are exempt), set specific requirements to take, temporarily possess, or transport any migratory bird for rehabilitation purposes. However, any person who finds a sick, injured, or orphaned migratory bird may, without a permit, take possession of the bird in order to immediately transport it to a permitted rehabilitator.

Prior to entering the location of an oil or hazardous material spill, a permitted rehabilitator must obtain authorization from the FOSC and a designated representative of the USFWS. All activities within the spill location are subject to the authority of the FOSC. The USFWS is responsible for overseeing migratory bird rehabilitation by permitted organizations, such as Tri-State Bird Rescue and Research or International Bird Rescue. Facilities used in migratory bird rehabilitation should conform as closely as possible to facility specifications contained in the USFWS policy *Best Practices for Migratory Bird Care During Oil Spill Response* (http://www.fws.gov/contaminants/OtherDocuments/best_practices.pdf).

8.2.1.2 Eagle Permits

50 CFR 22. These permits are authorize the taking, possession, or transportation of bald eagles or golden eagles, or their parts, nests, or eggs for scientific or exhibition purposes. They may be required for the possession of such birds during rehabilitation. The USFWS must be notified within 48 hours of acquisition. Directions will be given at that time as to disposition and/or location of continued treatment.

8.2.1.3 Endangered Species

50 CFR 17.22. Permits are for scientific purposes, enhancement of propagation or survival, or for incidental take. The 30 day comment period for this type of permit may be waived by the USFWS Director during emergency conditions, where the life and health of a specimen is threatened and there is no alternative available. This permit is required by rehabilitators participating in wildlife responses that include endangered species.

8.2.1.4 Authorities for Permits

The specific Federal laws and regulations that require such permits are as follows:

- a) Migratory Bird Treaty Act of 1918, as amended (16 U.S.C.703 et seq.). This law stipulates that no person shall take, possess, import, export, transport, sell, purchase or barter, any migratory bird, or the parts, nests, or eggs of such bird except as permitted by Federal regulations in 50 CFR. A valid permit, issued by the provisions of 50 CFR Part 21 and 50 CFR Part 13 is required for the collection, salvage, and possession of any migratory bird. Enforcement authority and penalties for violations are provided.
- b) Bald Eagle and Golden Eagle Protection Act (Eagle Act) of 1940, as amended (16 U.S.C. 668 et seq.). Although the USFWS recently delisted the bald eagle as a federally designated threatened species, bald eagles continue to be protected under the Eagle Act and the Migratory Bird Treaty Act by prohibiting killing, selling or otherwise harming them, their nests or eggs. The Eagle Act also protects eagles from disturbance. "Disturb" means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle; 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior; or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior. Recommendations contained in the USFWS

National Bald Eagle Management Guidelines will help FOSCs avoid or minimize disturbance to eagles (<http://www.fws.gov/migratorybirds/baldeagle.htm>). In general, potentially disruptive activities should be kept as far away from nest trees as possible during the breeding season. During an oil or chemical spill, eagles should be monitored and kept out of oiled areas.

- c) Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.). This law makes it unlawful for any person to commit, attempt to commit, solicit another to commit, or cause to be committed, the import or export, taking, possessing, sale or offering for sale any endangered species except as permitted under the terms of a valid permit issued by the USFWS pursuant to 50 CFR 17. Enforcement authority and penalties for violations are provided.

All inquiries regarding Federal Migratory Bird permits and criteria for qualified wildlife rehabilitators are to be directed to the following:

Migratory Bird Permit Office
U.S. Fish and Wildlife Service
P.O. Box 45
Bishop Henry Whipple Federal Building
1 Federal Drive
Fort Snelling, MN 55111-0045

(612) 725-3776

In a spill situation, response and rehabilitation permit needs for endangered species will be determined by the USFWS on an emergency case-by-case basis administered under 50 CFR 17.21, 22, 31, and 32.

8.2.2 State Permits

State permits may be obtained through the applicable State agency office listed below:

ILLINOIS	Illinois Department of Natural Resources: 217/782-6384
INDIANA	Indiana Department of Natural Resources: 317/232-8160
MICHIGAN	Michigan Department of Natural Resources: 517/373-9329
MINNESOTA	Minnesota Department of Natural Resources: 612/296-3344
OHIO	Ohio Department of Natural Resources: 614/264-6046
WISCONSIN	Wisconsin Department of Natural Resources: 608/266-2193

8.3 Selection of a Qualified Wildlife Rehabilitator (QWR)

An effective wildlife rehabilitation effort for oil contaminated wildlife requires direction by people with demonstrated field experience in oil spill response. Specific information on obtaining a Federal rehabilitation permit can be obtained through the U.S. Fish and Wildlife Service Region 3 Migratory Bird Office (see above for address and phone number).

8.3.1. Recognized Professional Rehabilitators

Two organizations, Tri-State Bird Rescue and Research, Inc. and International Bird Rescue, have become recognized experts in oiled bird rehabilitation:

Tri-State Bird Rescue and Research, Inc.
110 Possum Hollow Road
Newark, Delaware 19711
Telephone: 302-737-7241
Fax: 302-737-9562
24-hour 800-710-0695 or 0696

International Bird Rescue Research Center
699 Potter Street
Berkeley, California 94710
Telephone: 510-841-9086
Fax: 510-841-9089

Both organizations have extensive experience in bird rescue and rehabilitation and have worked with both government and industry. Other local bird rehabilitation organizations may also have comparable capabilities. Veterinarians, researchers, and biologists from the USFWS, other Federal agencies, State wildlife agencies, and universities may also be able to provide assistance and expertise during wildlife rehabilitation efforts.

8.3.2 Volunteers

While most wildlife rehabilitators and veterinarians cannot make the commitment of time needed to develop the resources to respond to major oil spills, many rehabilitators, veterinarians, and staff and volunteers from environmental organizations may be able to make significant contributions to spill-related wildlife rehabilitation efforts. The QWR should be able to identify each person's or organization's strengths and incorporate them into the rehabilitation effort. The USFWS in U.S. EPA's Region 5 has sponsored a series of apprenticeship workshops for wildlife rehabilitators, veterinarians, and biologists. The workshop participants are in the initial stages of being trained to offer professional assistance (as volunteers or part-time staff) to a QWR during major oil spills.

In major wildlife rehabilitation efforts, there may be two or three shifts per day, with a shift utilizing over 50 volunteer workers. Volunteers must be appropriately trained, precisely scheduled for suitable tasks, and must be supervised at all times.

8.4 Health and Safety Concerns in Wildlife Rescue and Rehabilitation

(NCP sec. 300.210(c)(4)(ii)(H))

Health and safety concerns in wildlife rescue and rehabilitation should be considered in all plans. Please refer to Part I, Section 9 for a more comprehensive narrative.

8.5 Identification of Facilities and Equipment Necessary for Deterring, Capturing, Cleaning, Rehabilitating, and Releasing Oiled Wildlife

(NCP sec. 300.210(c)(4)(ii)(F))

8.5.1 Facility Requirements

Facility needs usually focus on the majority of species affected by a petroleum discharge, which are generally birds. Facility requirements can vary significantly, depending on overall size of response, species and age of wildlife contaminated, the type of contaminant, the season/weather, the location of the spill, and the rehabilitation effort. The facility needed will vary according to the needs of the specific spill situation, and should be determined by a QWR experienced in oil spill response work.

Because facility requirements can vary significantly, a permanent facility is not always advisable, and may actually be an impediment in providing the appropriate facility design for the situation. A suitable facility must have a large open space on the ground floor that can easily be configured and reconfigured to accommodate the changing needs of this unique form of wildlife rehabilitation. All rehabilitation efforts should be accommodated under one roof. Experience has taught that multiple buildings or a tent situation are inefficient and unsuitable. A warehouse, armory, motor pool or convention hall that is accessible to a trained labor force, is within reasonable distance from hotel accommodations, and has adequate parking and exterior grounds could meet this requirement. If a facility is situated in a secure site, i.e., military installation or refinery, accommodations for a fluctuating volunteer work force need to be addressed. The facility may be located up to 3-4 hours from the spill site, provided that on-scene stabilization is administered prior to transport. An oil spill stabilization site can be located at the time of a spill.

It is recommended that a list be assembled of potential real estate within the identified high risk areas, and that the sites be physically reviewed by a representative of a wildlife response group with major spill response experience. Once acceptable facilities have been identified, all costs, availability, and contract information should be reviewed on a yearly basis.

The following list represents minimum facility needs for rehabilitating 100-150 oiled wildlife.

8.5.1.1 Space Requirements

- Front Desk/Admissions – 300 sq. ft.
- Operations Office – 300 sq. ft.
- Kitchen/Food Storage – 300 sq. ft.
- Husbandry Area (large central room) – 2800 sq. ft.
- Supplies/Storage – 500 sq. ft.
- Wildlife Cleaning Area 1 – 750 sq. ft.
- Medical Treatment/Exam – 300 sq. ft.

Pathology/Lab/Cold Storage – 150 sq. ft.
Isolation Ward – 300 sq. ft.
Volunteer/Worker Rest Area – 300 sq. ft.
Bathrooms, Decontamination, Changing – 200 sq. ft.
Outside Pool Areas @ one 10' x 15' x 2' pool for 15 birds, plus access and maintenance space – 3300 sq. ft.
Nonhazardous and regulated (medical and oily) trash
 Indoor 100 sq. ft.
 Outside 400 sq. ft.
 Outside area for oily wastewater 300 sq. ft.
Loading Dock/Parking for 50 (opposite side of building from outside cages) – 5000 sq. ft.
Total interior sq. ft. – 6300 sq. ft.
Total exterior sq. ft. – 9000 sq. ft.
Total sq. ft. – 15,200 sq. ft.

Note: If an existing wildlife rehabilitation center were to be used, it would require the above space in addition to the space allocated for any existing caseload. Animals impacted by an oil spill must be cared for separately from the in-house population.

8.5.1.2 Hot/Cold Water Capacity

When selecting a wildlife response facility, it is important that the water supply not be contaminated by the oil spill. For preplanning purposes, potential facility locations should be selected in areas of low oil spill probability. All oily waste water must be collected and disposed of in accordance with Federal and municipal regulations, however, the large quantities of rinse, pool, and general use water is permissible for discharge to most municipal systems. It is therefore inadvisable to select a location that relies on a septic system to handle waste because this large volume of water can exceed the design capacity of most septic systems. Ideally there should be external access to cold water supplies for filling pools.

Due to the nature of wildlife rehabilitation, large amounts of water are used in many locations throughout the facility. It is therefore advisable that the facility has floors that can tolerate being wet, with drains at least in the areas dedicated to cleaning activities.

Cold Water Volume (pools and general use) – 23,360 gal./day
Hot Water Volume (animal cleaning only) – 450 gph @ 104 degrees F.
 (6750 gal/day @ 15 hrs.)
Water Pressure (animal cleaning only) – 50-60 psi.
Water Hardness (animal cleaning only) – 2.5-3.5 grains/gallon

A suitable facility in terms of size, availability and location should not be discounted due to hot water and hardness capacities. Provided that there is an adequate cold water supply, mobile hot water and treatment systems can be retrofitted into existing equipment without much difficulty.

8.5.1.3 Electrical/Lighting

The electrical needs of a wildlife response facility are very similar to those of a conventional manufacturing/industrial operation in so far as there is a need for general and task lighting, with an adequate number of separately circuited outlets throughout the space capable of providing 20 amp protection. Because of potential risk of electrical shock in wet areas, the addition of GFI circuit breakers in those areas is desirable.

In addition to lighting and the HVAC system, electric power will be used for freezers, refrigerators, heat lamps, pet dryers, office and medical equipment, pool pumps and filters, power tools, etc.

200 amp 120/240 volt 3-wire single phase service with minimum of ten (10) 20 amp circuits in addition to the lighting and HVAC needs, with the ability to expand.

8.5.1.4 HVAC Systems

The three main concerns regarding air quality are:

- 1) Eliminating the thermal stress to debilitated animals by providing a stable, draft free inside air temperature between 70-80 degrees F.;
- 2) Minimizing human exposure to petroleum volatiles; and
- 3) Minimizing animal exposure to pathogenic organisms (bacterial and fungal).

Air within a wildlife response facility should be exchanged 6 times per hour within office areas, 10 times per hour within large open spaces involving animal care, and 20 times per hour within critical care and/or surgical areas.

Typical HVAC systems used in industrial space are often forced air or closed recirculating systems which by themselves will not meet the above requirements. These systems will need to be augmented with portable filtration (HEPA) and air exchange units. The design of these systems should be determined by the wildlife response group once the facility has been selected, and the particulars of the animal caseload is known.

Air quality in systems that employ return air filtration can be enhanced through the replacement of the existing filters with an electrostatic type. This will not, however, preclude the need for HEPA type filtration and regular air exchanges as outlined above.

8.5.1.5 Communications

A minimum of three (3) telephone lines (public, private, fax/modem) are necessary with the ability to add more if needed.

8.5.2 Equipment, Training and Personnel Needed For Field Retrieval

8.5.2.1 Equipment

- Boats
- Safety protection/floatation gear
- Personal protective clothing
- Different types of netting
- Transport containers (boxes, ventilated)
- Transport vehicles (to and from spill site)
- Adequate communication (cellular phones, etc.)
- If stabilization is necessary at spill site (prior to transportation to rehabilitation facility), need rehabilitators to have necessary training and equipment available for stabilization

8.5.2.2 Training

- OSHA training
- Coast Guard boat training
- QWR wildlife rescue and rehabilitation training
- QWR wildlife handling training

8.5.2.3 Personnel

- Natural resources trust agencies personnel
- QWR trained field retrieval personnel
- QWR trained rehabilitation personnel
- Enforcement personnel
- Boat handlers
- Rehabilitators trained by QWR (both aspects of rehabilitation and handling)
- Personnel to handle 1-800 # calls for potential oiled wildlife sightings

If wildlife retrieval must begin prior to the QWR arrival, there is a need to specify where the wildlife would be taken for rehabilitation and who would be handling them. Please refer to Part I, Section 9 for further narrative.

8.6 Drills and Exercises

(NCP sec. 300.212)

The State natural resource agency, the USFWS, and the QWR should be incorporated into appropriate drills and/or exercises involving oil spill response situations which may potentially impact wildlife. By including these groups as part of the exercise, the OSC will fully understand and appreciate the vital role that wildlife rehabilitation plays in the overall success of the response strategy.

Since the majority of this work occurs during the first 24-36 hours of a spill incident, early involvement of the QWR in drills and exercises is imperative. The QWR should provide a daily end-of-day report to the incident commander, outlining all communication and response efforts

made by the QWR. This information should be incorporated into the daily drill documents. The QWR participating in the drills/exercises should be included in the final critique of the drill/exercise to help ensure a complete and accurate assessment is made regarding the ability of all participants to respond to wildlife at risk.

9.0 SAFETY AND TRAINING

(NCP sec. 300.210(c)(4)(ii)(H))

9.1 Requirements for OSHA and U.S. EPA training

The annex should identify and secure the means of providing, if needed, the minimum required Occupational Safety and Health Administration (OSHA) or U.S. EPA training for volunteers, including those who assist with injured wildlife. Training should precede actual work in hazardous environments.

Two OSHA regulations address most of the occupational health and safety issues encountered during wildlife rescue and rehabilitation:

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

Appropriate available training offered by U.S. EPA (through their Environmental Response Training Program in Cincinnati, Ohio) includes the following:

- a) Hazardous Materials Incident Response Operations (165.5) 40hrs. (This course meets OSHA's requirement (29 CFR 1910.120) for a minimum of 40 hours of classroom safety training for hazardous waste site workers.)
- b) Emergency Response to Hazardous Materials Incidents (165.15) 40hrs. (This course meets and exceeds OSHA's requirement (29 CFR 1910.120 paragraph q) for a minimum of 24 hours of training for a hazardous materials technician.)

Rehabilitation organizations are legally required to educate and protect all employees, including volunteers, in accordance with OSHA standards. Individuals working with oiled animals must receive information concerning all potential hazards associated with the handling of these

animals. The following requirements should be applied to wildlife rescue and rehabilitation personnel, including volunteers:

- a) Wildlife rescue and rehabilitation management personnel - This is the core team of rehabilitators who will direct operations. These people must have 24-hours of classroom training in hazardous waste operations and emergency response.
- b) Rehabilitation facility volunteers - These volunteers work under the direction of the management team. Persons in this category must receive four hours of training at the HAZWOPER Awareness level, or have sufficient equivalent training or proven experience in specific competencies, before they can begin work. Additional training would be necessary before volunteers would be allowed on scene.
- c) Retrieval volunteers - These volunteers work under the direction of the search and rescue management team and are allowed on-scene, but not in the hot zone. Volunteers working in this category must receive between four and eight hours of HAZWOPER training (Awareness level) and site safety training before they can begin work.

9.2 Wildlife Response Training

A contracted private source may be responsible for training volunteers on site. Additionally, USFWS may be interested in providing periodic training in preparation for spills.

9.2.1 Training Topics

- 1. General overview of the external and internal effects of oil on wildlife
- 2. Current treatment protocols
- 3. Facility needs
- 4. Human health and safety

9.2.2 Training Goals

- 1) Clarify the duties and the responsibilities of the spiller, cleanup contractor, State and Federal agencies, volunteers and the general public
- 2) Improve the treatment and the release rates for affected wildlife
- 3) Enhance speed and quality of a response involving wildlife following an oil spill event
- 4) Reduce wildlife response costs by making efforts more cost-effective
- 5) Help to insure the safety of all those working in a wildlife response

9.3 Wildlife Risks

Specific human health and safety concerns in handling wildlife will vary with the species of animal involved, but the following safeguards apply universally:

- 1) Wearing gloves while cleaning animal cages and food bowls, washing hands with a disinfectant soap, wearing gloves and surgical mask while performing necropsies (post-

mortem examinations), and providing for adequate room ventilation will help reduce the risk of contracting wildlife transmitted diseases.

- 2) Protective eyewear should be worn when working with birds having long, pointed beaks, and towels (for entire body control) or gloves should be used to restrain feet of all birds.
- 3) All individuals who will be handling oiled wildlife must be trained in proper capture and restraint techniques. The head (beak or teeth) and feet (talons or claws) of most animals can cause serious injuries if the handler has received improper or incomplete training.
- 4) Animals should be held at or below waist-height, away from human faces. At least two people should be present for any prolonged handling (examinations, washing, etc.). Aggressive mammals should be controlled with nets or snare poles, and should be sedated for any prolonged handling.
- 5) Any worker handling wildlife should have a current tetanus shot, and only individuals who have received prophylactic rabies vaccinations should handle wild mammals.

Diseases which can be transmitted from animals to humans pose a potential risk to oil/hazmat spill responders during the rescue, rehabilitation and release of wildlife. Although this list may not be inclusive, the following diseases are of particular concern:

9.3.1 Birds

- Aspergillosis--a fungal disease causing respiratory problems in humans.
- Chlamydiosis--a bacterial disease causing flu-like symptoms in people. Potentially fatal.
- Salmonellosis--a bacterial disease causing diarrhea in humans.
- Avian Tuberculosis--a bacterial disease causing skin lesions and occasionally respiratory problems in humans.
- Histoplasmosis--a fungal disease causing pneumonia in humans.

9.3.2 Mammals

- Rabies--a viral disease causing central nervous system (CNS) disorder in humans. Fatal if untreated.
- Giardia--a protozoal disease causing diarrhea.
- Baylisascaris--a parasite causing CNS disorder & death in humans.
- Campylobacteriosis--a bacteria causing diarrhea in humans.

- Cryptosporidiosis--a protozoal disease causing diarrhea in humans.
- Toxoplasmosis--a protozoal disease which may cause CNS disorder in humans.

If responders are likely to come into contact with captured wildlife during a spill event, the site safety officer (or a contracted veterinarian) should be consulted to determine appropriate prevention measures. Volunteers should contact medical professionals if they become ill during or after potential exposure to wildlife diseases.

Medical professionals may also wish to consult the National Biological Discipline, National Wildlife Health Center in Madison, Wisconsin (<http://www.nwhc.usgs.gov/> , NWHCweb@usgs.gov) at (608) 270-2400 for wildlife disease diagnostic assistance.

9.4 Safety Equipment

Appropriate equipment is important for safe spill response activities. Necessary equipment will vary according to the particular situation, and may depend on such circumstances as the size of the spill and types of resources affected. For individuals not involved directly in on-site (hot zone) retrieval or cleanup efforts (exposed only to Level D hazards), personal protective equipment may include the following:

1. coveralls
2. gloves
3. boots/shoes, leather or chemical resistant, steel shank and toe
4. safety glasses or chemical splash goggles
5. hard hat with face shield
6. escape mask

Where sampling includes aquatic sites, personal protective equipment should include:

1. knee, hip, or chest waders in good condition
2. long rubber gloves

Life jackets are required for work in boats or over water. Safety equipment may also include specially designed respiratory equipment and/or ear protection.

9.5 Product Risks

Petroleum products in, on, and around wildlife may present a hazard to human health and safety. Various components in certain petroleum products can damage skin, conjunctivae of eyes, lungs, or the gastrointestinal tract (if inadvertently ingested). Chronic and/or prolonged exposure may cause damage to the central nervous system and some cancers, such as skin cancer and leukemia. Fetal defects have been documented in laboratory animals. Individual risk factors such as pregnancy or history of liver disease should be taken into consideration in allowing volunteers and staff to work in contaminated areas. Personal hygiene must be stressed during the

decontamination process. Protective measures should always be taken to avoid and/or minimize oil exposure throughout spill response activities.

9.6 Watercraft Safety

Airboats or boats propelled by outboard motors are effective for hazing waterbirds and for searching for sick or injured wildlife. Small, noisy, shallow-draft aluminum boats are particularly effective for hazing, and can be used as platforms for shell crackers during the day and for propane exploders or bright lights at night. Although relatively ineffective for herding diving birds, boats may be used for herding young or molting waterfowl that are incapable of flight.

Response personnel will ensure that all watercraft operations are conducted in accordance with local laws and regulations of the U.S. Coast Guard and OSHA, as well as any applicable internal agency regulations.

Response leader responsibilities should include the following:

- 1) Ensure that all workers who operate or work in watercraft have received first aid instruction in artificial respiration.
- 2) Ensure that personnel who operate watercraft have completed a recognized boating or water safety course.

Each watercraft will be required to have personal protective equipment (personal flotation devices), firefighting equipment, and other safety equipment (distress signaling devices, bailing devices, and emergency position indicating radiobeacons, running lights, radio, fog horns, navigational aids, anchor and anchor line), and undergo periodic inspections as required by USCG and OSHA regulations.

9.7 Aircraft Safety

Aircraft, especially helicopters, are effective in hazing migratory birds from large areas because of the combination of loud noise and rapid approach from above. Helicopters may also be used to herd flightless birds (young and molting birds). Aircraft can also be utilized for reconnaissance and transportation of personnel, equipment, and accessing injured wildlife.

Aircraft are considered to be especially useful during the early stages of cleanup and hazing operations. They are more effective if used in combination with other devices such as shell crackers and propane exploders. Because of their maneuverability and noise, helicopters are more effective than fixed-wing aircraft.

Established aviation safety programs and aircraft accident prevention programs within each organization will be complied with at sites at which such response measures are anticipated.

10.0 COMPATIBILITY OF NON-FEDERAL RESPONSE PLANS

(NCP Sec. 300.210(c)(4)(ii)(I))

Section 300.210(c)(4)(ii)(I) of the NCP mandates that the Fish and Wildlife Annex to the ACP define the requirements for evaluating compatibility between this Annex and non-Federal response plans on issues affecting fish and wildlife, their habitat, and sensitive environments. Facility owners or operators must determine the maximum distance at which a worst case oil spill from their facility could cause injury to fish and wildlife and sensitive environments and develop a plan for mitigating that discharge's potential adverse effects. Facility plans must be consistent with the requirements of the NCP, the National Response Framework (NRF), RCP and this ACP Annex. Pipeline plans in the Region will be reviewed and approved by DOT.

Depending on the location of the spill, it may also be appropriate for responders to consult the Upper Mississippi River Spill Response Plan and Resource Manual (<http://www.umrba.org/hazspills/umrplan.pdf>). This document is consistent with the Regional Contingency Plans and Area Contingency Plans of Regions V and VII and provides response information tailored to the Upper Mississippi River and the surrounding basin.

11.0 NATURAL RESOURCE DAMAGE ASSESSMENT (NRDA)

At the same time response efforts to contain and remove oil and undertake wildlife rescue and rehabilitation are occurring, natural resource trustees may pursue NRDA activities. These activities constitute a preliminary assessment, or preassessment, of natural resource injuries. While preassessment activities are generally different from removal/response activities and in most instances are conducted simultaneously. The removal/response activities are controlled by the OSC, while the components of the damage assessment process are directed by the trustees. There is a procedural linkage of the funding mechanisms (both are funded by the Oil Spill Liability Trust Fund) and it becomes necessary for natural resource managers to distinguish between the removal and preassessment activities.

NRDA regulations, authorized by OPA and other Federal laws, presume trustees will seek economic damages from responsible parties for injuries to natural resources from oil discharges. Trustees include Federal landowners, Federal natural resource managers, States, Indian tribes, and foreign governments. Damages collected must be used to restore, replace, or acquire natural resources equivalent to injured natural resources and to reimburse assessment costs.

11.1 Authority

NRDA is authorized by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund), the Clean Water Act (CWA), and the OPA. To facilitate compliance with OPA, the Department of Commerce (DOC) promulgated 15 CFR Part 990 - Natural Resource Damage Assessment Regulations for discharges of oil. The final rule for these regulations was published in the Federal Register on January 5, 1996 with February 5, 1996 as the effective date of the final rule.

11.2 Natural Resource Trustees - NRDA Roles and Responsibilities

Section 1006(b) of OPA provides for the designation of Federal, State, Indian Tribe, and foreign natural resource trustees to determine if injury to, destruction of, loss of, or loss of use of natural resources and services has resulted from an incident, to assess damages for those injuries, to present a claim for damages (including the reasonable costs of assessing these damages), to recover damages, and to develop and implement a plan for the restoration, replacement, or acquisition of the equivalent of the injured natural resources and services under their trusteeship. The DOI is the Federal trustee for migratory birds, certain anadromous fish, endangered species, and DOI-managed lands such as National Parks and Recreation Areas and Wildlife Refuges. The DOI Office of Environmental Policy and Compliance (OEPC) is the initial contact for notification and for overall coordination of trustee activities. The USFWS, a bureau of DOI and the program manager for migratory birds, endangered species, anadromous fish, and lands in the National Wildlife Refuge System, will likely be among those involved for DOI in spill incidents because of their responsibility for these resources. In instances where other Federal agency lands or resources are involved, those agencies (e.g. Department of Defense, U.S. Department of Agriculture, National Oceanic and Atmospheric Administration [NOAA]) may serve as co-trustees with DOI. At the time of a spill, the trustees will agree upon one agency to act as Federal lead administrative trustee and will convene a trustee group in cooperation with State, Indian, and foreign trustees, as appropriate, to ensure the best possible coordination of natural resource trustee activities such as data gathering, damage assessment, and negotiations with the responsible parties.

11.3 Process

The NRDA process in the final rule includes 3 phases as outlined below:

- 1) preassessment
- 2) restoration planning
- 3) restoration implementation.

11.3.1 Preassessment Phase

When notified of an incident involving oil, trustees must first determine threshold criteria that provide their authority to begin an NRDA, such as applicability of OPA and risks to natural resources under their trusteeship. Based on early available information, trustees make a preliminary determination whether natural resources or services under their authorities have been, or are likely to be, injured. Through coordination with response agencies, trustees next determine whether response actions will eliminate the threat of ongoing and future injuries. If injuries have occurred and/or are expected to continue, and feasible restoration alternatives exist to address such injuries, trustees may proceed with the assessment.

Preassessment phase activities will likely be conducted simultaneously with removal/response activities. The intent of the preassessment phase activities is generally to acquire data and materials that are likely to be lost if not collected during or immediately after a spill has occurred. Such field sampling and data collection is generally limited to:

- 1) Samples necessary to preserve perishable materials likely to have been affected or to contain evidence of the oil. These samples will generally consist of biological material that is either dead or which has been visibly affected by the oil.
- 2) Samples of other materials which exhibit ephemeral conditions, such as surface water, sediments, soil, or the oil itself, which are necessary for identification of released product and measurement of concentrations. If not collected immediately, such information could otherwise be lost due to product dilution, movement, decomposition, or leaching.
- 3) Counts of dead or visibly injured organisms which, if delayed, may not be possible due to factors such as decomposition, scavenging, sinking, or movement from the spill site by currents.

Other types of activities that may be involved in assessment initiation include release detection and notification, trustee identification and notification, site characterization, and identification of pathways, exposed areas, and potentially affected resources. In very specific circumstances, a natural resource trustee may also undertake emergency restoration efforts to prevent or reduce the immediate migration of oil onto or into a trust resource. Emergency restoration is only undertaken if the responsible party or U.S. EPA cannot or does not conduct response actions within the time frame that natural resource trustees deem necessary to protect trust resources.

Because certain NRDA activities (e.g. collection of water and sediment samples) may be identical to those conducted by others as part of the response, all sampling and field work conducted by the natural resource trustees should be coordinated with the lead response agency so as to minimize duplication of sampling and data collection efforts. Work performed for response purposes is reimbursable by the OSLTF under response costs. Activities performed that are not response-related may be reimbursable by the OSLTF under assessment initiation costs.

11.3.2 Restoration Planning Phase

The purpose of the Restoration Planning Phase is to evaluate potential injuries to natural resources and services, and to use that information to determine the need for and scale of restoration activities. The Restoration Planning Phase provides the link between injury and restoration. The Restoration Planning Phase has two basic components; injury assessment and restoration selection.

11.3.2.1 Injury Assessment

The purpose of injury assessment is to determine the nature and extent of injuries to natural resources and services, thus providing a technical basis for evaluating the need for, type of, and scale of restoration actions. Under the final rule, injury is defined as an observable or measurable adverse change in a natural resource or impairment of a natural resource service. Trustees must determine that there is: 1) exposure, a pathway, and an adverse change to a natural resource or service as a result of an actual discharge; or 2) an injury to a natural resource service as a result of response actions or a substantial threat of a discharge. Trustees must also quantify the degree and spatial and temporal extent of injuries. Injuries are

quantified by comparing the condition of the injured natural resources or services to baseline, where necessary.

11.3.2.2 Restoration Selection

Once injury assessment is complete, trustees must develop a plan for restoring the injured natural resources and services. Acceptable restoration actions include any of the actions authorized under OPA (restoration, rehabilitation, replacement, or acquisition of the equivalent), or some combination of those actions.

11.3.3 Restoration Implementation Phase

The Final Restoration Plan is presented to responsible parties to either implement or to fund the trustees' costs of implementing the plan, thus providing the opportunity for settlement of damages claims without litigation. Should responsible parties decline to settle a claim, OPA authorizes the trustees to bring a civil action for damages in Federal court or seek an appropriation from the OSLTF for such damages.

PART II. EMERGENCY SPILL RESPONSE GUIDANCE

1.0 ROLES AND RESPONSIBILITIES OF NATURAL RESOURCE TRUSTEES

(NCP sec. 300.210(c)(4)(I) and 300.615)

1.1 Overview

When a spill occurs, impacts to the ecosystem are usually unavoidable. However, such impacts can be minimized through proper planning and coordination with State and Federal natural resource trustees and managers both before and during a spill. Consultation and coordination with natural resource managers during the pre-spill planning phase aids in identifying and understanding potential natural resource concerns and issues as a result of spills in general. Consultation and coordination during a spill is also essential to ensure that site-specific resource concerns are addressed.

1.2 Spill Response

The DOI has statutory responsibilities for protecting migratory birds and Federally-listed threatened and endangered species. In addition, DOI shares trustee responsibilities with the Department of Commerce for anadromous fish. These DOI responsibilities at the field level have been delegated to the USFWS. During a spill event, the USFWS will normally serve as the lead agency for trustee response, coordinating with other trustees and providing oversight for a qualified wildlife rehabilitator (QWR).

If wildlife other than migratory birds, Federally-listed threatened or endangered species, or anadromous fish are found injured, the responsible trustee agency would typically be the State wildlife agency.

During a spill response, natural resource trustees and managers can provide the OSC with technical assistance and expertise on potential effects of oil on fish and wildlife and their habitats (for Notification numbers, see Part II, Section 3). They are frequently familiar with the habitat in the path of the spill and can provide recommendations concerning the best locations for equipment staging, access points, or boom anchors. They can recommend specific habitats where protective actions should be taken and provide advice on specific response measures. They can assist in the development of a monitoring plan and subsequent collection of data. Finally, the USFWS and State natural resource agencies will direct or provide oversight for the protection, rescue, and rehabilitation of wildlife.

When a spill occurs, natural resource trustees or managers will provide advice on the measures necessary to minimize or prevent the exposure of wildlife to oil, as well as the priority and timing of such measures. Protective measures may include one or more of the following:

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

If exposure of birds and other wildlife to oil cannot be prevented, an immediate decision must be made regarding whether to rescue and rehabilitate oiled birds and other wildlife. The decision must be made in consultation with the applicable Federal (USFWS) and State natural resource management agencies, since State and Federal permits are required by law (please refer to Part I, Section 8). Rehabilitation services for contaminated wildlife can be contracted for by the Responsible Party, the OSC, or Federal and State designated trustees. However, full authority regarding protection, rescue and rehabilitation of wildlife and fish remains with the trustees.

Following a spill, natural resource trustees may have the additional responsibility of assessing injury to the environment as a result of the spill. Natural Resource Damage Assessment (NRDA) is the process (refer to Part I, Section 11) by which trustees collect, compile, and evaluate data, information and statistics to determine the extent of injury to natural resources. This information is used to assess damages (the dollar amount necessary to restore injured trust resources and compensate for lost use as a result of injury) and to seek recovery of those damages from the responsible party. The initiation of a NRDA is typically begun while response activities are still being carried out.

1.2.1 Specific Responsibilities of Federal Natural Resource Trustees During a Spill Response

1.2.1.1 U.S. Department of the Interior, U.S. Fish and Wildlife Service

The USFWS is the lead agency for the DOI in the management of migratory birds (co-trustee with State natural resource agencies), Federally-listed endangered and threatened species, and USFWS lands (such as National Wildlife Refuges, Waterfowl Production Areas, and fish

hatcheries) within this ACP planning area. During a spill response, USFWS personnel (biologists, law enforcement officers, refuge and fisheries managers) have the following responsibilities:

- a) ensure notification of all necessary USFWS personnel, and establish a response protocol delineating roles of each USFWS office. Coordination protocol with the State natural resource agency and other trustees will also be established.
- b) provide the OSC with specific fish and wildlife habitat information for USFWS lands. USFWS will also provide recommendations for preventing or minimizing spill impacts to USFWS lands, as well as consult on the best locations for response staging areas and access points.
- c) provide the OSC with critical habitat information for Federally-listed threatened and endangered species. USFWS will also provide recommendations for preventing or minimizing spill impacts to these species, as well as advise on the best locations for response staging areas and access points in the vicinity of endangered species critical habitat.
- d) provide the OSC with fish and wildlife habitat information for locations other than Federal lands within the area potentially affected by the spill (in coordination with the State natural resource agencies and other trustees).
- e) provide the OSC with technical assistance and expertise on potential effects of oil on fish and wildlife and their habitats or on other sensitive environments that can be found in the potentially impacted area.
- f) provide the OSC with assistance in coordination of wildlife rescue and rehabilitation efforts (in conjunction with the State natural resource agency and other trustees). NOTE: It is critical that properly licensed and qualified rehabilitators be contacted as soon as it is determined that such services are necessary. The USFWS and State natural resource agencies have joint responsibility for overseeing any activity involving the handling of wildlife. Because such activities may impinge upon the Natural Resource Damage Assessment (NRDA) responsibilities of the trustees, any decision to rescue and rehabilitate oiled and injured wildlife during a spill response must be made in coordination with the USFWS and State natural resource agency.
- g) initiate a Natural Resource Damage Assessment (NRDA) (in conjunction with other natural resource trustee agencies), if applicable. Such activity usually involves acquiring data both during and after a spill event to document: (1) evidence of the oil in water, sediments, soil, and organisms; (2) effects on fish, wildlife, and/or their habitat; (3) exposure pathways, and; (4) the potential need to undertake emergency restoration efforts to prevent or reduce the immediate migration of oil onto or into a trust resource. Because activities associated with NRDA initiation may be identical to those conducted as part of the response, all sampling and field work conducted by the natural resource trustees should be coordinated with the lead response agency.

1.2.1.2 Department of the Interior, National Park Service

The National Park Service (NPS) may provide access, advice and participation in emergency response activities affecting any of the 22 National Park System lands within Region 5, including National Parks, Lakeshores, Monuments, Scenic Trails, Recreation Areas, Memorials, Historic Sites and Canals. It may also offer assistance for spill incident responses that may impact units of the National Wild and Scenic Rivers System and properties on or eligible to be listed on the National Register of Historic Places. The NPS Midwest Regional Office is located in Omaha, Nebraska.

1.2.1.3 Department of the Interior, Bureau of Indian Affairs

The Bureau of Indian Affairs (BIA) may assist in coordination of emergency response activities affecting Indian lands, and in identifying Indian tribal government Officials. The BIA may also assist in obtaining access to Indian land areas as needed for response action, and may also coordinate with the incident Public Information Office Director to ensure that pertinent information is made available to tribal authorities on a timely basis. Currently, there are 35 federally recognized tribes in Region 5, all located in Minnesota, Wisconsin and Michigan. The BIA's Midwest Regional Office is located in Fort Snelling, Minnesota.

1.2.1.4 Department of Commerce, NOAA

This section provides NOAA's element of the Fish and Wildlife and Sensitive Environments Annex to the U.S. EPA Region 5 RCP/ACP

The NCP requires a Fish and Wildlife and Sensitive Environments Annex to the NCP, RCPs, and ACPs. The Annex is intended to provide for coordinated, immediate, and effective protection, rescue, and rehabilitation of, and minimization of risk of injury to, fish and wildlife resources and habitat.

Following is a summary of how NOAA contributes to these goals and objectives:

- 1) NOAA and the American Petroleum Institute (API) developed the manual Options for Minimizing Environmental Impacts of Freshwater Spill Response (also known as the Freshwater Manual). It provides a framework for identification of appropriate countermeasures in the Great Lakes region. It contains information to assist contingency planners and field responders with selecting appropriate protection, response, and cleanup techniques, both before and after an oil spill. The guide provides information on 29 response methods and classifies their relative environmental impact on 12 freshwater environments and habitats in combination with 4 oil types. Spill topics of special concern in freshwater settings are also discussed including: public health, conditions under which oil might sink in freshwater, and oil behavior in ice conditions. The manual is available through the NOAA HAZMAT Scientific Support Coordinator (SSC) assigned to U.S. Coast Guard District 9 in Cleveland, Ohio.

- 2) NOAA developed Environmental Sensitivity Index (ESI) Maps for the Great Lakes. The ESI maps include information for three main components: shoreline habitats; sensitive biological resources; and human-use resources. Shoreline habitats are ranked from 1 to 10 (10 being most sensitive) based on their relative sensitivity to oil spills, potential biological injury, and ease of cleanup. Four major categories of biological resources were considered during the production of the ESI maps; birds, fish, plants, and mammals. The human-use features include: airports, boat ramps, Coast Guard units, marinas, national parks, State parks, water intakes, and wildlife areas. A complete set of ESI maps for the Great Lakes is maintained by the NOAA HAZMAT SSC, USCG District 9 Marine Safety Division, USCG District 9 Civil Engineering Unit, and U.S. EPA Region 5 Emergency Response Branch. USCG District 9 Marine Safety Offices have ESI Maps for their area of responsibility.
- 3) NOAA maintains an extensive library and database of resources at risk in the Great Lakes and remainder of the U.S. This information is available through the NOAA SSC for contingency planning and during incident response.
- 4) NOAA and U.S. EPA Region 4 developed a strategy for meeting OPA 90 mandates for sensitive area mapping in oil spill contingency plans. The strategy compliments the ESI system noted above. The Reach Sensitivity Index (RSI) provides a sensitivity index classification system for small rivers and streams. This RSI also compliments the ongoing U.S. EPA Region 5 mapping of the Mississippi River. Reference NOAA/HAZMAT Report 96-11, A strategy for Mapping Sensitive Resource of Rivers and Streams in U.S. EPA Region 4, July 1996.
- 5) In the spirit of the intent of the Fish and Wildlife and Sensitive Environments Annex, the NOAA SSC has assisted USCG Sector Offices with the development of ACP appendices including: "Sensitive Areas", "Response and Protection Priorities and Strategies", and "Countermeasures and Removal Techniques".

1.2.2 Specific Responsibilities of State Natural Resource Trustees During a Spill Response

The State natural resource agencies are trustees (or co-trustees depending on the State) for the natural resources of the State and co-trustees with the USFWS concerning the management of migratory birds and some Federally threatened and endangered species. The State natural resource trustee has management authority over all State lands, parks, timber, waters, minerals, and wildlife. This includes the protection, preservation, and propagation of fish and wildlife resources of the State. In response to a spill event, State natural resource agency personnel (biologists, conservation officers, managers) have the following responsibilities:

- a) notify other appropriate State natural resource agency personnel and establish a response protocol describing the role of responders;
- b) coordinate efforts with other participating natural resource trustees, such as the USFWS.

- c) provide the OSC with specific fish and wildlife habitat information within the area concerning all lakes, streams, wetlands, and rivers. The State agency will also consult with the responders as to the best locations for staging and recovery areas as well as access points.
- d) provide the OSC with critical habitat information for State-listed threatened and endangered species as well as information on sensitive natural communities and special concern species found in the area.
- e) provide the OSC with technical assistance and expertise on potential effects of oil and hazardous substances on fish and wildlife and their habitats.
- f) provide the OSC with assistance for coordination of wildlife rescue and rehabilitation efforts in cooperation with the USFWS.
- g) assess damages to natural resources during (as circumstances allow) and after a spill. Data acquired would be used to determine the extent of injury to natural resources, to develop restoration or replacement strategies, and to develop and submit a claim for damages to the responsible party(ies).

2.0 IDENTIFICATION AND PRIORITIZATION OF NATURAL RESOURCES REQUIRING PROTECTION

(NCP sec. 300.210(c)(4)(ii)(A)&(B))

Sensitive environments and species are identified in order to provide for coordinated, immediate, and effective protection of fish, wildlife, and their habitats that may be affected by a discharge of oil or hazardous material. Identification of sensitive natural resources allows priority to be placed on protection of these resources prior to a discharge (through pre-spill planning of appropriate countermeasures and pre-staging of response equipment), as well as during a spill event (by focusing attention and response resources on the most critical areas).

2.1 Identification

Because natural systems are dynamic, the best available information on the identification and distribution of sensitive resources will be obtained through the Federal and State natural resource biologists/managers. The experience of these professionals, as well as their ability to provide the most up-to-date information, cannot effectively be utilized without the event-specific conditions of a discharge, such as the location, season, weather, type and amount of material involved. Because of the importance of coordinating with natural resource biologists and managers at the time of a spill, a list of Federal and State agency personnel most familiar with the resources has been assembled (see Part II, Section 3.). Once alerted, these personnel will provide event-specific technical assistance to the Federal or State OSC.

Clearly, there is a need for prior identification of sensitive natural resources to guide those responding to discharges during initial phases of response (i.e., before the consensus opinions of

natural resource managers can be obtained). Therefore, a list of high priority natural resources is provided below (see Section 2.3: Categories for Resource Protection Prioritization).

2.2 Prioritization

Because of the diversity and extent of sensitive natural resources in the ACP region, it is important to reach a consensus, to the extent possible, on the highest resource priorities in order to provide for time-sensitive, coordinated, and effective protection, rescue, and restoration.

Although prioritization is difficult, several criteria that may be used in making this determination have been identified:

- relative abundance or scarcity of a particular resource
- relative diversity and abundance of resources at a particular site
- fecundity of biological resources
- vulnerability to spills
- sensitivity to the product discharged
- amenability to restoration or remediation
- protection by Federal and State laws
- economic importance

2.3 Categories for Resource Protection Prioritization

In general, natural resources are most at risk from oil spills when:

- 1) large numbers of individuals are concentrated in a relatively small area, such as bays where rafts of waterfowl concentrate during migration and overwintering;
- 2) areas important to specific life stages or migration patterns, such as foraging and overwintering sites, are impacted by oil;
- 3) the species are threatened or endangered;
- 4) early life stages of birds and anadromous fish are present in somewhat restricted areas;
- 5) specific areas are known to be vital sources for propagation, such as shellfish beds;
- 6) a significant percentage of the population is likely to be exposed to oil; and
- 7) wildlife come ashore for resting, molting, or birthing.

The above factors lead to categories of natural resources that should be considered of high priority for protection and remediation:

2.2.1 Priority 1

- Federally listed or proposed Endangered and Threatened Species and their Designated Critical Habitat (DOI/FWS/NPS)

2.2.2 Priority 2

2.2.2.1 Migratory birds (waterfowl, wading birds, shorebirds, raptors, diving birds, songbirds) and their habitats (DOI/FWS)

- Migratory Bird Nesting Sites (DOI/FWS)
- Colonial Waterbird Nesting Sites (DOI/FWS)
- Migratory Concentration Areas for Migratory Birds (DOI/FWS)
- Seasonal Concentration Areas for Migratory Birds (DOI/FWS)

2.2.2.2 Anadromous Fish Spawning Areas (DOI/FWS/NOAA)

2.2.2.3 National and State Protected Areas:

- National Wildlife Refuges and Waterfowl Production Areas (DOI/FWS)
- National Wilderness Areas (DOI/FWS/NPS; USDA/FS)
- National Parks (DOI/NPS)
- National Preserves (DOI/NPS)
- National Forests (USDA/FS)
- National Fish Hatcheries (DOI/FWS; NOAA/NMFS)
- Clean Lakes Program Critical Areas (U.S. EPA)
- Tribal Lands (appropriate Tribal Contact)
- State Parks
- State Refuges
- State Wildlife Management Areas
- State Forests

2.2.2.4 State-listed or proposed Endangered and Threatened Species

2.2.2.5 High quality priority freshwater wetlands (other than included above) identified by Local, State, regional, or Federal levels of Government (U.S. EPA; COE; DOI/FWS/NPS; USDA/FS)

2.2.2.6 Federal and State Species of Concern (DOI/FWS/NPS)

2.2.2.7 Outstanding National Resource Waters/Outstanding Resource Value Waters (if not listed above):

- National Wild and Scenic Rivers (DOI/NPS; USDA/FS)
- Critical areas under the Clean Lakes Program (U.S. EPA/States)
- Sites within Joint Venture Project Areas under the North American Waterfowl Management Plan (DOI/FWS)
- Sites under the RAMSAR Treaty on Wetlands of International Importance (DOI/FWS)

- State Scientific and Natural Areas
- Calcareous Fens
- State Wild and Scenic Rivers
- Trout streams

2.2.3 Priority 3 - Sensitive Recreation Areas

- Heritage Program Sites
- Cultural Sites (Archeological, Historical, Monuments)
- Recreational Areas (Boating, Fishing, Swimming)

PLEASE NOTE: Fish and wildlife agency concerns are intensified with the above species and specified areas at specific times of the year (e.g., breeding and migration season). Should an oil spill occur within these designated areas, the USFWS and State(s) natural resource agencies should be contacted immediately to assist in determining the routing direction of the spill as well as other aspects of the cleanup effort.

3.0 STATE-BY-STATE NOTIFICATION NUMBERS AND INFORMATION RESOURCES OF FISH AND WILDLIFE RESOURCE MANAGERS

When an oil spill impacts wildlife, or has the significant potential for impact, in addition to contacting the NRC (1-800-424-8802), the State or Federal OSC should immediately notify the DOI POC, State natural resource agency and the appropriate USFWS Field Office in each State. Primary contact points for the agencies are listed under the appropriate State heading. Only one contact per agency is necessary because the person initially contacted will notify other personnel in their agency, such as Law Enforcement staff and Refuge managers. The OSC may also contact any other natural resource agency for help with fish and wildlife issues.

The USFWS is responsible for the management and protection of migratory birds, Federally listed threatened and endangered species (and their critical habitat), and for USFWS lands, including National Wildlife Refuges, Waterfowl Production Areas, and National Fish Hatcheries. The USFWS will provide responders with information concerning these resources, as well as technical assistance concerning the effects of oil on these resources. The USFWS will help coordinate wildlife recovery and rehabilitation efforts in conjunction with the State natural resource trustee.

On-scene-coordinators must also contact Native American community officials if they need technical information/assistance in the protection of fish and wildlife resources on tribal lands. (Please refer to the directory of tribal authorities presented in the ACP/RCP.)

3.1 Information for Spills that Occur in Illinois

3.1.1 Appropriate Staff Contacts for the Designated Officials for Fish and Wildlife Resource Management Agencies

Entities for which contact information may be necessary in the event of a spill include:

3.1.1.1 Illinois

For Fish and Wildlife Service contact information, see

<http://www.fws.gov/midwest/Eco%5FServ/Env%5FCont/ecwho.html>

- Fish and Wildlife Service Regional Office – Region 3
- Fish and Wildlife Service Illinois (Mississippi River, left and right banks)

Illinois Environmental Protection Agency:

Primary	Alternate
Roger Lauder, Manager	Bud Bridgewater
Office of Emergency Response	Illinois Environmental Protection Agency
Illinois Environmental Protection Agency	1021 North Grand Avenue East
P.O. Box 19276	P.O. Box 19276
Springfield, IL 62794-9276	Springfield, IL 62794-9276
Phone: 215-524-5027	Phone: 217-782-3637
Cell: 217-306-7145	FAX: 217-524-4036
Pager: 800-249-9891	24 hour: 217-782-7860
24 hr: 217-782-7860 (IEMA)	Email: bud.bridgewater@illinois.gov
FAX: 217-782-1431	
Email: roger.lauder@illinois.gov	

For an indexed list of Federal Threatened and Endangered Species, see

http://www.fws.gov/midwest/Endangered/lists/cty_indx.html

3.1.1.2 Indiana

For Fish and Wildlife Service contact information, see

<http://www.fws.gov/midwest/Eco%5FServ/Env%5FCont/ecwho.html>

- Fish and Wildlife Service Indiana

Indiana Department of Environmental Management ~~Natural Resources~~:

Max Michael, Section Chief
Emergency Response
Indiana Department of Environmental Management
100 North Senate Drive
P.O. Box 6015
Indianapolis, IN 46206-6015
Phone 317-308-3049
24 hr: 317-233-7745
Toll Free: 888-233-7745
FAX: 317-308-3063
Email: mmichael@idem.in.gov

For an indexed list of Federal Threatened and Endangered Species, see
http://www.fws.gov/midwest/Endangered/lists/cty_indx.html

3.1.1.3 Michigan

For Fish and Wildlife Service contact information, see
<http://www.fws.gov/midwest/Eco%5FServ/Env%5FCont/ecwho.html>

- Michigan Department of Environmental Quality

Primary	Alternate
Pete Ostlund	Mitch Adelman
Field Operations, Water Bureau	Jackson District Supervisor
Michigan Department of Environmental Quality	Environmental Response Division
Constitution Hall, 2 nd Floor	MI Dept. of Environmental Quality
525 W. Allegan	Jackson, MI 48909
P.O. Box 30273	Phone: 517-780-7852
Lansing, MI 48933	24 hr: 517-373-7660 (out of state)
Phone: 517-373-1982	800-292-4706
24 hr: 517-373-7660 (out of State)	FAX: 517-780-7855
800-292-4706 (in State)	Email: adelmanm@michigan.gov
FAX: 517-373-2040	
Email: ostlundp@michigan.gov	

For an indexed list of Federal Threatened and Endangered Species, see
http://www.fws.gov/midwest/Endangered/lists/cty_indx.html

3.1.1.4 Minnesota

For Fish and Wildlife Service contact information, see
<http://www.fws.gov/midwest/Eco%5FServ/Env%5FCont/ecwho.html>

- Fish and Wildlife Service Regional Office – Region 3
- Fish and Wildlife Service Illinois Minnesota

Minnesota Department of Natural Resources:
Minnesota Pollution Control Agency:

Marilyn Danks	Phone: 651259-5087
Minnesota Department of Natural	FAX: 651-296-1811
Resources	Stephen Lee
Ecological Services	Minnesota Pollution Control Agency
500 Lafayette Road	520 Lafayette Road
St. Paul, MN 55155	St. Paul, MN 55155

Phone: 651-297-8610
24 hr: 651-649-5451

FAX: 651-297-8321
Email: Stephen.lee@pca.state.mn.us

For an indexed list of Federal Threatened and Endangered Species, see
http://www.fws.gov/midwest/Endangered/lists/cty_indx.html

3.1.1.5 Ohio

For Fish and Wildlife Service contact information, see
<http://www.fws.gov/midwest/Eco%5FServ/Env%5FCont/ecwho.html>

- Fish and Wildlife Service Regional Office – Region 3
- Fish and Wildlife Service Ohio

Ohio Department of Natural Resources, Ohio Division of Wildlife

Central Ohio
Dan Huss, Manager
District One
1500 Dublin Rd.
Columbus, Ohio 43215
Phone: 614-644-3925
Fax: 614-644-3931

Northwest Ohio
John Daugherty, Manager
District Two
952 Lima Ave., Box A
Findlay, Ohio 45840
Phone: 419-424-5000
Fax: 419-422-4875

Northeast Ohio
Jeff Herrick, Manager
District Three
912 Portage Lakes Dr.
Akron, Ohio 44319
Phone: 330-644-2293
FAX: 330-644-8403

Southeast Ohio
Mark Hemming, Manager
District Four
360 E. State St.
Athens, Ohio 45701
Phone: 740-589-9930

FAX: 740-589-9999

Southwest Ohio
Todd Haines, Manager
District Five
1076 Old Springfield Pike
Xenia, Ohio 45385-1238
Phone: 937-372-9261
Fax: 937-376-3011

For an indexed list of Federal Threatened and Endangered Species, see
http://www.fws.gov/midwest/Endangered/lists/cty_indx.html

3.1.1.6 Wisconsin

For Fish and Wildlife Service contact information, see
<http://www.fws.gov/midwest/Eco%5FServ/Env%5FCont/ecwho.html>

- Fish and Wildlife Service Regional Office – Region 3
- Fish and Wildlife Service Wisconsin

Wisconsin Department of Natural Resources
Wisconsin Department of Emergency Management

Primary
David Woodbury
Bureau of Law Enforcement
Wisconsin Department of Natural Resources
101 South Webster St.
P.O. Box 7921
Madison, WI 53707-7921
Phone: 608-266-2598
24 hr: 800-943-0003
Pager 608-376-9049
Cell: 608-444-3976
FAX: 608-266-3696
Email: david.woodbury@wisconsin.gov

Alternate
Jerry Haberl
Wisconsin Depart. of Emergency Mgt.
Dept. of Military Affairs
2400 Wright St.
P.O. Box 7865
Madison, WI 53707-7865
Phone 608-242-3213
24 hr: 608-376-1594 (pager)
FAX 608-242-3248
Email: jerry.haberl@wisconsin.gov

For an indexed list of Federal Threatened and Endangered Species, see
http://www.fws.gov/midwest/Endangered/lists/cty_indx.html

References/Acknowledgements

1. Department of Commerce, National Oceanic and Atmospheric Administration, 15 CFR Part 990, Natural Resource Damage Assessment Final Rule. Federal Register Notice, Vol. 61. No. 4, Friday, January 5, 1996.
2. Environmental Protection Agency, 40 CFR Parts 9 and 300, National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule. Federal Register Notice Vol. 59, No. 178, Thursday, September 15, 1994.
3. North Carolina Coastal Areas Wildlife Contingency Plan.
4. U.S. Department of the Interior, Fish and Wildlife Service. Endangered and Threatened Wildlife and Plants. 50 CFR 17.11 & 17.12. October 31, 1995.
5. U.S. Fish and Wildlife Service Administrative Manual 24 AM 2.
6. U.S. Fish and Wildlife Service Administrative Manual 24 AM 16 - Exhibit A.
7. U.S. Fish and Wildlife Service Administrative Manual 24 AM 16 - Exhibit D.
8. U.S. Fish and Wildlife Service Administrative Manual 24 AM 16 - Exhibit F.
9. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, Environmental Response Training Program (Schedule of Courses).
10. U.S. Environmental Protection Agency Region VIII Contingency Plan-Fish and Wildlife Sensitive Environments Annex.

Attachment 1. SAFETY CHECKLIST

PART I. BEFORE FIELD ACTIVITY

1. Employee: _____ Date: _____

2. Site Location: _____

3. Activity Description: Environmental Sampling _____

Reconnaissance _____

Other (describe) _____

4. Type of Response/Site:

Spill _____ Industrial _____ Nonindustrial _____

Rural _____ Suburban _____ Urban _____

Private Lands _____ Refuge _____ Hatchery _____

Other Service Lands _____

5. Site topography:

Mountains _____ River _____ Valley _____

Level _____ Sloping _____

6. Site Accessibility:

Foot only: _____

Road: Good _____ Fair _____ Poor _____

Air: Good _____ Fair _____ Poor _____

7. Suspected chemical(s):

8. Source of chemical(s):

9. First Aid available: Yes _____ No _____

10. If SCBA, identify team members (buddies): _____

PART II. AFTER RESPONSE

1. List possible chemical exposure:

Same as above _____

Other chemicals: _____

Identified or suspected: _____

2. Describe any contact or exposure with chemical: _____

3. Equipment Decontamination: _____

4. Approximate time at site: hr/day _____ for _____ days _____

5. Personal Protective Equipment used:

Gloves _____

Hip Waders _____

Chest waders _____

Other _____

6. Date Part I Prepared: _____

Reviewed by: _____ Date: _____

7. Date Part I Prepared: _____

Reviewed by: _____ Date: _____

Attachment 2. Biological Opinion

Biological Opinion to be provided upon completion.

Appendix VIII: Region 5 RRT Oil Spill Solidifier Preapproval Documentation

Available online at <http://www.rrt5.org/Portals/0/Appendices/5 RRT solidifier preapproval documents.pdf>

Federal Region V Regional Response Team

Oil Spill Solidifier Preapproval- Contained within socks, booms, pillows

Under the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300) the Regional Response Team (RRT) may authorize the use of oil spill control agents that are on the National Product Schedule. Pursuant to various presentations on the products, and the additional written materials that the Science and Technology Sub-Committee of the RRT has reviewed, the Region V RRT will allow the use of the following products under limited approval and specific conditions explained below:

ALSOCUP

Aqua N-CAP Polymer

CI Agent

WASTE-SET #3200

WASTE-SET #3400

The Region V RRT has approved the use, in Region V, of socks, booms, pads, pillows or other device which completely surrounds and contains one of the solidifier products listed above subject to the following conditions:

- a. Application of the solidifier product must be done in a manner that does not allow the solidifier product to be released from the sock, boom, pad, or pillow; and
- b. The sock, boom, pad, or pillow is not left in the environment for more than one week after contact with oil; and
- c. The sock, boom, or pillow must be recovered from the water within one week of contact with oil or depletion of solidifying capacity and properly disposed of.
- d. This preapproval does not include preapproved use in tribal or Department of Interior managed lands.

Customers must be advised of these conditions to the approval of the solidifier products.

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U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Response and Restoration
Emergency Response Division/Scientific Support Branch
10 George Street, Suite 220
Lowell, MA 01852-2293

June, 13, 2020

Jerome Popiel
US. Coast Guard Ninth District
1240 E. 9th Street
Cleveland, OH 44199

RE: Preauthorization of enclosed or contained solidifiers in the waters of RRT V, as applicable under the National Contingency Plan, subpart J, for use in oil spill response and treatment.

Dear Popiel,

As the Dept. of Commerce/ National Oceanic & Atmospheric Administration representative to the Region V Regional Response Team and federal natural resources trustee under the National Contingency Plan, I approve the plan submitted for the use of five solidifying agents (ALSOCUP, Aqua N-CAP Polymer, CIAgent, WASTE-SET #3200 and WASTE-SET #3400) to be used in an enclosed sock, boom, pad or other device.

As the National Oceanic & Atmospheric Administration, in its role relative to the Endangered Species Act, has no endangered species in the waters in question, an ESA section 7 consultation is unnecessary. If new species are listed under NOAA's jurisdiction, such a consultation may become necessary at that time.

Respectfully,

Stephen M. Lehmann
NOAA





U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Response and Restoration
Emergency Response Division/Scientific Support Branch
10 George Street, Suite 220
Lowell, MA 01852-2293

June, 13, 2020

Jason H. El-Zein
US EPA Region 5
Emergency Response Branch
77 West Jackson, SE-5J
Chicago, IL 60604

RE: Preauthorization of enclosed or contained solidifiers in the waters of RRT V, as applicable under the National Contingency Plan, subpart J, for use in oil spill response and treatment. .

Dear Mr. El-Zein,

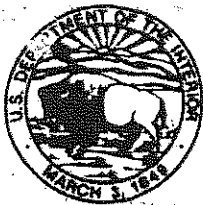
As the Dept. of Commerce/ National Oceanic & Atmospheric Administration representative to the Region V Regional Response Team and federal natural resources trustee under the National Contingency Plan, I approve the plan submitted for the use of five solidifying agents (ALSOCUP, Aqua N-CAP Polymer, CIAgent, WASTE-SET #3200 and WASTE-SET #3400) to be used in an enclosed sock, boom, pad or other device.

As the National Oceanic & Atmospheric Administration, in its role relative to the Endangered Species Act, has no endangered species in the waters in question, an ESA section 7 consultation is unnecessary. If new species are listed under NOAA's jurisdiction, such a consultation may become necessary at that time.

Respectfully,

Stephen M. Lehmann
NOAA





United States Department of the Interior

FISH AND WILDLIFE SERVICE
Bishop Henry Whipple Federal Building
1 Federal Drive
Fort Snelling, MN 55111-4056

IN REPLY REFER TO:

FWS-AES/TE

NOV 17 2010

Jason H. El-Zein
U. S. Environmental Protection Agency
Region 5, Emergency Response Branch 1
Superfund Division
77 West Jackson, SE-5J
Chicago, Illinois 60604

Dear Mr. El-Zein,

An identical letter is being sent to Captain Stephen Torpey, U. S. Coast Guard.

This replies to your letter dated May 5, 2010, requesting our concurrence on your determination that the proposed preauthorized use with conditions of five solidifier products in emergency oil spill response throughout Regional Response Team Region V (RRTV) "is not likely to adversely affect" listed species or critical habitat pursuant to the Endangered Species Act of 1973, amended (ESA). Preauthorization is defined here as approval by the RRTV to use the selected chemical countermeasures from the Subpart J National Product Schedule of the National Contingency Plan. This chemical countermeasure approval does not eliminate the need for the responders to consult with our agency on the potential for adverse effects to federally listed species or the potential for adverse modification to federally designated critical habitat from the emergency oil spill response as a whole. We have reviewed the materials forwarded to this office on the solidifier products and conducted some independent literature review. We concur with your determination that federally listed species, candidate species, and critical habitat are not likely to be adversely affected by the conditional preauthorization to use solidifier products within RRTV.

The action under review is the preauthorization for use of enclosed or contained solidifier products in responding to oil spills within the geographic area of RRTV. The federally listed endangered, threatened, and candidate species considered for this review include the aquatic and aquatic dependent species that occur in States of Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin (see attached list). The conditions for the preauthorized use require that the solidifier product be enclosed or contained within socks, booms, or pillows that does not allow the free product to be released into the environment, that the enclosed products be removed from the water after use, and that the enclosed products are not be left in the water for more than one week. The five solidifier products under consideration include ALSOCUP, Aqua N-CAP Polymer, CIAgent, WASTE-SET #3200, and WASTE-SET #3400. There are two aspects

germane to our section 7 review: direct toxicity due to exposure to the solidifier product should it be accidentally released into the environment from the enclosed products and indirect effects due to changed environmental conditions resulting from an accidental release of solidifier products.

First, to assess the effects of toxicity from direct exposure, we relied upon the freshwater fish toxicity test results available through the RRT and a review of the scientific literature. Our analysis indicates that the selected solidifier products are acutely toxic at high concentrations, but only at levels above what would be encountered from the prescribed application during an emergency response (Fingas 2008). The endpoints used in the toxicological tests were various species of fish. Although we do not know if fish are among the most sensitive organism, we did not find any contradictory data or information to suggest that aquatic invertebrates or aquatic dependent wildlife are toxicologically more sensitive than fish. Therefore, we concur that direct exposure and ingestion of the subject solidifier products are unlikely to adversely affect listed species.

Second, we assessed the indirect effects to listed species and critical habitat as a result of changing the baseline conditions. The baseline condition for this action is the oiled environment without the controlled application of enclosed or contained solidifier products. The application of solidifier products in oiled environments is expected to change the baseline condition should there be an accidental release by a tear or rupture in the socks, pillows, or booms containing the solidifier product. The change to the baseline condition includes creating thicker solid deposits of oil that float and are contained to a smaller area plus any of the incidentally released free solidifier product within the immediate area. Organisms including federally listed aquatic and aquatic dependent species are less likely to be exposed as the area containing oil and the solidifier products will be reduced. However, short term exposure to the thicker floating oil deposits and free solidifier product, although not likely to be more toxic than the oil itself, may present new physical barriers for the federally listed and candidate species, which could alter the normal behavior of organisms. We believe, based on the best available information, that exposure to thicker oil deposits and any free solidifier product will not elicit a detectable negative response in listed species beyond the response expected from exposure or contact with the oil without the use of solidifier products. This includes for example, free solidifier product from controlled uses is not expected to adhere to the skin, fur, or feathers of animals to the extent that it affects thermal regulation by altering natural oils of the exposed organisms beyond the exposure to the untreated oil.

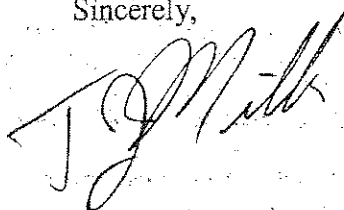
The new condition resulting from an accidental release with the proper use of solidifier products may also modify the baseline conditions within designated critical habitat and potentially affect associated primary constituent elements (see attached matrix). We believe, based on the best available information, that any potentially exposed primary constituent elements will not be further adversely affected. That is, we do not anticipate any further detectable adverse impacts to critical habitat from the application of contained solidifier products in an oiled environment.

Note, activities such as clearing vegetation for roads, construction of boat ramps, access to the oiled environment, physical disturbance to shorelines, construction of groundwater wells, or

discharge of wastewaters during the response effort is not part of the proposed action, and thus, was not contemplated in this section 7 review. To comply with the ESA, further section 7 review is necessary before such actions are undertaken. The request for preauthorized use of solidifier products in waters part of the National Wildlife Refuge System within RRTV is under review. The results of Refuge preauthorized use of solidifier products will be transmitted under a separate letter. This precludes the need for further consultation on this action (preauthorization of use of solidifiers) as required under Section 7 of the Endangered Species Act of 1973, as amended. Should the project be modified or new information indicate endangered species may be affected, consultation should be initiated.

Thank you for the opportunity to consult with you on this matter. Please feel free to call Jennifer Szymanski (608-783-8455) for endangered species related questions or Mike Coffey (309-757-5800 x206) for oil response related questions.

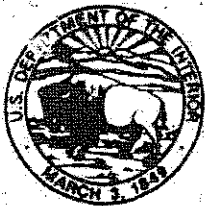
Sincerely,

A handwritten signature in black ink, appearing to read 'T. J. Miller', with a stylized, cursive script.

T. J. Miller
Chief, Endangered Species

References:

Fingas, M. 2008. A review of the literature related to oil spill solidifiers 1990 – 2008. Report for Prince William Sound Regional Citizens' Advisory Council, Anchorage, AK by Merv Fingas, Spill Science, Edmonton, Alberta. Contract number 955.08.03



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Bishop Henry Whipple Federal Building
1 Federal Drive
Fort Snelling, MN 55111-4056

IN REPLY REFER TO:

FWS-AES/TE

NOV 17 2010

Captain Stephen Torpey
Chief, Office of Incident Management
U.S. Coast Guard, Ninth District (drm)
1240 E. 9th Street, Room 2007C
Cleveland, Ohio 44199-2060

Dear Captain Torpey,

An identical letter is being sent to Mr. Jason H. El-Zein, U.S. Environmental Protection Agency.

This replies to your letter dated May 5, 2010, requesting our concurrence on your determination that the proposed preauthorized use with conditions of five solidifier products in emergency oil spill response throughout Regional Response Team Region V (RRTV) "is not likely to adversely affect" listed species or critical habitat pursuant to the Endangered Species Act of 1973, amended (ESA). Preauthorization is defined here as approval by the RRTV to use the selected chemical countermeasures from the Subpart J National Product Schedule of the National Contingency Plan. This chemical countermeasure approval does not eliminate the need for the responders to consult with our agency on the potential for adverse effects to federally listed species or the potential for adverse modification to federally designated critical habitat from the emergency oil spill response as a whole. We have reviewed the materials forwarded to this office on the solidifier products and conducted some independent literature review. We concur with your determination that federally listed species, candidate species, and critical habitat are not likely to be adversely affected by the conditional preauthorization to use solidifier products within RRTV.

The action under review is the preauthorization for use of enclosed or contained solidifier products in responding to oil spills within the geographic area of RRTV. The federally listed endangered, threatened, and candidate species considered for this review include the aquatic and aquatic dependent species that occur in States of Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin (see attached list). The conditions for the preauthorized use require that the solidifier product be enclosed or contained within socks, booms, or pillows that does not allow the free product to be released into the environment, that the enclosed products be removed from the water after use, and that the enclosed products are not be left in the water for more than one week. The five solidifier products under consideration include ALSOCUP, Aqua N-CAP Polymer, CIAgent, WASTE-SET #3200, and WASTE-SET #3400. There are two aspects germane to our section 7 review: direct toxicity due to exposure to the solidifier product should it

be accidentally released into the environment from the enclosed products and indirect effects due to changed environmental conditions resulting from an accidental release of solidifier products.

First, to assess the effects of toxicity from direct exposure, we relied upon the freshwater fish toxicity test results available through the RRT and a review of the scientific literature. Our analysis indicates that the selected solidifier products are acutely toxic at high concentrations, but only at levels above what would be encountered from the prescribed application during an emergency response (Fingas 2008). The endpoints used in the toxicological tests were various species of fish. Although we do not know if fish are among the most sensitive organism, we did not find any contradictory data or information to suggest that aquatic invertebrates or aquatic dependent wildlife are toxicologically more sensitive than fish. Therefore, we concur that direct exposure and ingestion of the subject solidifier products are unlikely to adversely affect listed species.

Second, we assessed the indirect effects to listed species and critical habitat as a result of changing the baseline conditions. The baseline condition for this action is the oiled environment without the controlled application of enclosed or contained solidifier products. The application of solidifier products in oiled environments is expected to change the baseline condition should there be an accidental release by a tear or rupture in the socks, pillows, or booms containing the solidifier product. The change to the baseline condition includes creating thicker solid deposits of oil that float and are contained to a smaller area plus any of the incidentally released free solidifier product within the immediate area. Organisms including federally listed aquatic and aquatic dependent species are less likely to be exposed as the area containing oil and the solidifier products will be reduced. However, short term exposure to the thicker floating oil deposits and free solidifier product, although not likely to be more toxic than the oil itself, may present new physical barriers for the federally listed and candidate species, which could alter the normal behavior of organisms. We believe, based on the best available information, that exposure to thicker oil deposits and any free solidifier product will not elicit, a detectable negative response in listed species beyond the response expected from exposure or contact with the oil without the use of solidifier products. This includes for example, free solidifier product from controlled uses is not expected to adhere to the skin, fur, or feathers of animals to the extent that it affects thermal regulation by altering natural oils of the exposed organisms beyond the exposure to the untreated oil.

The new condition resulting from an accidental release with the proper use of solidifier products may also modify the baseline conditions within designated critical habitat and potentially affect associated primary constituent elements (see attached matrix). We believe, based on the best available information, that any potentially exposed primary constituent elements will not be further adversely affected. That is, we do not anticipate any further detectable adverse impacts to critical habitat from the application of contained solidifier products in an oiled environment.

Note, activities such as clearing vegetation for roads, construction of boat ramps, access to the oiled environment, physical disturbance to shorelines, construction of groundwater wells, or

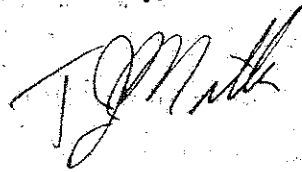
Captain Stephen Torpey

3

discharge of wastewaters during the response effort is not part of the proposed action, and thus, was not contemplated in this section 7 review. To comply with the ESA, further section 7 review is necessary before such actions are undertaken. The request for preauthorized use of solidifier products in waters part of the National Wildlife Refuge System within RRTV is under review. The results of Refuge preauthorized use of solidifier products will be transmitted under a separate letter. This precludes the need for further consultation on this action (preauthorization of use of solidifiers) as required under Section 7 of the Endangered Species Act of 1973, as amended. Should the project be modified or new information indicate endangered species may be affected, consultation should be initiated.

Thank you for the opportunity to consult with you on this matter. Please feel free to call Jennifer Szymanski (608-783-8455) for endangered species related questions or Mike Coffey (309-757-5800 x206) for oil response related questions.

Sincerely,



T. J. Miller
Chief, Endangered Species

References:

Fingas, M. 2008. A review of the literature related to oil spill solidifiers 1990 - 2008. Report for Prince William Sound Regional Citizens' Advisory Council, Anchorage, AK by Merv Fingas, Spill Science, Edmonton, Alberta. Contract number 955.08.03

RRTV Solidifier Product PreAuthorization
Critical Habitat Aquatic and Aquatic Dependent Species
Adverse Modification Analysis Matrix

Hines Emerald Dragonfly Critical Habitat (Illinois Units)

Primary Constituent Element	Baseline Condition	Action Condition	Baseline Modified	Adverse Effects	Comments
HINES EMERALD DRAGONFLY					
Organic soils (histosols, or with organic surface horizon) overlying calcareous substrate predominantly dolomite and limestone bedrock)	Liquid oil	Solid oil	No	No	
Calcareous water from intermittent seeps and springs and associated shallow, small, slow flowing streamlet channels, rivulets, and/or sheet flow within fens	Liquid oil	Solid oil	Yes	No	Temporary plugging of shallow groundwater recharge pathways
Emergent herbaceous and woody vegetation for emergence facilitation and refugia	Liquid oil	Solid oil	No	No	
Occupied burrows maintained by crayfish for refugia	Liquid oil	Solid oil	Yes	No	Temporary plugging up of chimney openings
Prey base of aquatic macroinvertebrates, including mayflies, aquatic isopods, caddisflies, midge larvae, and aquatic worms	Liquid oil	Solid oil	No	No	
Natural plant communities near the breeding/larval habitat which may include fen, marsh, sedge meadow, dolomite prairie, and the fringe (up to 100meters) of bordering shrubby and forested areas with open corridors for movement and dispersal	Liquid oil	Solid oil	No	No	
Prey base of small flying insect species (e.g., dipterans)	Liquid oil	Solid oil	No	No	

RRTV Solidifier Product PreAuthorization
Critical Habitat Aquatic and Aquatic Dependent Species
Adverse Modification Analysis Matrix

Piping Plover Critical Habitat (Illinois, Indiana, Michigan, Minnesota Units)

Primary Constituent Element	Baseline Condition	Action Condition	Baseline Modified	Adverse Effects	Comments
PIPING PLOVER					
Sand, gravel, or cobble beaches or spits	Liquid oil	Solid oil	No	No	
Shoreline length ≥ 0.2 kilometers of gently sloping sand beach	Liquid oil	Solid oil	No	No	
Sand beach area of ≥ 2 hectares	Liquid oil	Solid oil	No	No	
≥ 50 meters where beach width is ≥ 7 meters or ≥ 7 meters sand and cobble between dune and treeline	Liquid oil	Solid oil	No	No	
Distance from waterline to treeline ≥ 50 meters	Liquid oil	Solid oil	No	No	
Sparse vegetation with $\leq 50\%$ herbaceous or woody cover	Liquid oil	Solid oil	No	No	
Protective cover - small herbaceous patches, cobble, gravel, or debris (driftwood, wrack, root masses, dead shrubs)	Liquid oil	Solid oil	No	No	
Potential for the dynamic ecological processes that create and maintain habitat (e.g., erosion, accretion, plant succession, lake-level fluctuations; episodic storm events)	Liquid oil	Solid oil	Yes	No	Not a significant change to natural erosion or accretion processes
Low level of disturbance from human activities or domestic animals	Liquid oil	Solid oil	No	No	

RRTV Solidifier Product PreAuthorization
Critical Habitat Aquatic and Aquatic Dependent Species
Adverse Modification Analysis Matrix

Topeka Shiner Critical Habitat (Minnesota Units)

<i>Primary Constituent Element</i>	<i>Baseline Condition</i>	<i>Action Condition</i>	<i>Baseline Modified</i>	<i>Adverse Effects</i>	<i>Comments</i>
TOPEKA SHINER					
Streams most often with permanent flow, but that can become intermittent during dry periods	Liquid oil	Solid oil	Yes	No	Temporary blockage of water table recharge through stream bed during dry periods
Side-channel pools and oxbows either seasonally connected to a stream or maintained by groundwater inputs, at a surface elevation equal to or lower than the bankfull discharge stream elevation. The bankfull discharge is the flow at which water begins leaving the channel and flowing into the floodplain; this level is generally attained every 1 to 2 years. Bankfull discharge, while a function of the size of the stream, is a fairly constant feature related to the formation, maintenance, and dimensions of the stream channel	Liquid oil	Solid oil	No	No	
Streams and side-channel pools with water quality necessary for unimpaired behavior, growth, and viability of all life stages. The water quality components can vary seasonally and include—temperature (1 to 30°C/centigrade), total suspended solids (0 to 2000 ppm), conductivity (100 to 800 mhos), dissolved oxygen (4 ppm or greater), pH (7.0 to 9.0), and other chemical characteristics	Liquid oil	Solid oil	No	No	
Living and spawning areas for adult Topeka shiner with pools or runs with water velocities less than 0.5 meters/second (approx. 20 inches/second) and depths ranging from 0.1 to 2.0 meters (approximately 4 to 80 inches)	Liquid oil	Solid oil	No	No	
Living areas for juvenile Topeka shiners with water velocities less than 0.5 meters/second (approx. 20 inches/second) with depths less than 0.25 meters (approx. 10 inches) and moderate amounts of instream aquatic cover, such as woody debris, overhanging terrestrial vegetation, and aquatic plants	Liquid oil	Solid oil	No	No	

Sand, gravel, cobble, and silt substrates with amounts of fine sediment and substrate embeddedness that allows for nest building and maintenance of nests and eggs by native <i>Lepomis</i> sunfishes (green sunfish, orangespotted sunfish, longear sunfish) and Topeka shiner as necessary for reproduction, unimpaired behavior, growth, and viability of all life stages	Liquid oil	Solid oil	No	No
An adequate terrestrial, semiaquatic, and aquatic invertebrate food base that allows for unimpaired growth, reproduction, and survival of all life stages	Liquid oil	Solid oil	No	No
A hydrologic regime capable of forming, maintaining, or restoring the flow periodicity, channel morphology, fish community composition, offchannel habitats, and habitat components described in the other primary constituent elements	Liquid oil	Solid oil	Yes	No
Few or no nonnative predatory or nonnative competitive species present	Liquid oil	Solid oil	No	No
				Temporary obstruction for stream channel connectivity

**AQUATIC AND AQUATIC DEPENDENT
ENDANGERED, THREATENED, PROPOSED, AND CANDIDATE SPECIES
PARTS OF U.S. FISH AND WILDLIFE SERVICE REGION 3
Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin
October 2010**

MAMMALS

Gray bat (*Myotis grisescens*) Status: Endangered, Habitat: Caves, Range in RRTV: Illinois, Indiana, Missouri

Indiana bat (*Myotis sodalis*) Status: Endangered, Habitat: Summer habitat includes small to medium river and stream corridors with well developed riparian woods; woodlots within 1 to 3 miles of small to medium rivers and streams; and upland forests. Caves and mines as hibernacula. Range in RRTV: Illinois, Indiana, Iowa, Michigan, Missouri, Ohio

BIRDS

Least tern (*Sterna antillarum*) Status: Endangered, Habitat: Bare alluvial islands and dredged spoil islands, Range in RRTV: Illinois, Indiana, Iowa, Missouri

Piping plover (*Charadrius melodius*) - Great Lakes population Status: Endangered, Habitat: beaches along shorelines of the Great Lakes Range in RRTV: Michigan, Ohio, Wisconsin Great Plains population Status: Threatened Habitat: Bare alluvial and dredged spoil islands; sand and gravel areas around fly ash ponds, beaches, Range in RRTV: Iowa, Missouri, and Lake of the Woods, Minnesota

Whooping Crane (*Grus americana*) Status: nonessential, experimental population, Habitat: open wetlands and lakeshores, Range in RRTV: Iowa, Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin are within the Nonessential, Experimental Population area

REPTILES

Copperbelly water snake (*Nerodia erythrogaster neglecta*) Status: Threatened, Habitat: wooded and permanently wet areas such as oxbows, sloughs, brushy ditches and floodplain woods Range in RRTV: Indiana, Michigan, Ohio

Eastern massasauga (*Sistrurus catenatus catenatus*) Status: Candidate, Habitat: wetlands and uplands, Range in RRTV: Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, Wisconsin

Lake Erie water snake (*Nerodia sipedon insularum*) Status: Threatened, Habitat: shorelines of islands in western Lake Erie Range in RRTV: Ohio

FISHES

Pallid sturgeon (*Scaphirhynchus albus*) Status: Endangered, Habitat: Mississippi River downstream of its confluence with the Missouri River; Ohio River below Dam #53; Missouri River Range in RRTV: Illinois, Iowa, Missouri

Scioto madtom (*Noturus trautmani*) Status: Endangered, Habitat: stream riffles of moderate flow over sandy gravel bottom; may be extinct, Range in RRTV: Ohio

Topeka shiner (*Notropis topeka*) Status: Endangered, Critical Habitat designated in Minnesota and Iowa, Habitat: Small prairie streams, Range in RRTV: Minnesota, Iowa, Missouri

MUSSELS

Clubshell (*Pleurobema clava*) Status: Endangered, Habitat: Found in coarse sand and gravel areas of runs and riffles within streams and small rivers, Range in RRTV: Indiana, Michigan, Ohio

Cracking pearlymussel (*Hemistena lata*) (= *Lastena l.*) Status: Endangered, Habitat: Medium to large rivers in mud, sand, or gravel, Range in RRTV: Indiana (possibly extirpated)

Fanshell (*Cyprogenia stegaria*) (= *C. irrorata*) Status: Endangered, Habitat: Found in areas of packed sand and gravel at locations in a good current Range in RRTV: Illinois, Indiana, Ohio

Fat pocketbook (*Potamilus capax*) (= *Proptera c.*) Status: Endangered, Habitat: Large rivers in slow-flowing water Range in RRTV: Illinois, Indiana, Missouri

Higgins eye pearly mussel (*Lampsilis higginsii*) Status: Endangered, Habitat: Mississippi River and some of its larger northern tributaries (i.e., St. Croix and Wisconsin Rivers) in gravel or sand, Range in RRTV: Illinois, Iowa, Minnesota, Missouri, Wisconsin

Northern riffleshell (*Epioblasma torulosa rangiana*) Status: Endangered, Habitat: Large streams and small rivers in firm sand of riffle areas; also occurs in Lake Erie, Range in RRTV: Indiana, Michigan, Ohio, reintroduced into Illinois

Orange-foot pimpleback pearlymussel (*Plethobasus cooperianus*) Status: Endangered, Habitat: Gravel bars with strong currents in large rivers, Range in RRTV: Illinois, Indiana (possibly extirpated)

Pink mucket pearlymussel (*Lampsilis abrupta*) (= *L. orbiculata*) Status: Endangered, Habitat: The lower Mississippi and Ohio Rivers and their larger tributaries, Range in RRTV: Illinois, Indiana, Missouri, Ohio

Purple cat's paw pearlymussel (*Epioblasma* (=Dysnomia) *obliquata obliquata*) (=E. *sulcata sulcata*) Status: Endangered, Habitat: Gravel riffles of medium to large rivers, Range in RRTV: Ohio

Rabbitsfoot (*Quadrula cylindrica cylindrica*) Status: Candidate, Habitat: Rivers, Range in RRTV: Illinois, Indiana, Missouri, Ohio

Rayed Bean (*Villosa fabalis*) Status: Candidate, Habitat: Large rivers, Range in RRTV: Indiana, Michigan, Ohio

Ring pink mussel (=golf stick pearly) (*Obovaria retusa*) Status: Endangered, Habitat: Large rivers in sand or gravel, Range in RRTV: Indiana (possibly extirpated)

Rough pigtoe (*Pleurobema plenum*) Status: Endangered, Habitat: Medium to large rivers in sand or gravel, Range in RRTV: Indiana

Sheepnose (*Plethobasus cyphus*) Status: Candidate, Habitat: Large rivers, Range in RRTV: Illinois, Indiana, Iowa, Minnesota, Missouri, Ohio, and Wisconsin

Spectaclecase (*Cumberlandia monodonta*) Status: Candidate, Habitat: Large rivers, Range in RRTV: Illinois, Iowa, Minnesota, Missouri, and Wisconsin

Tubercled-blossom pearlymussel (*Epioblasma* (=Dysnomia) *torulosa torulosa*) Status: Endangered, Habitat: Gravel riffles in medium to large rivers, Range in RRTV: Indiana (possibly extirpated)

White cat's paw pearlymussel (*Epioblasma obliquata perobliqua*) Status: Endangered, Habitat: Firm sand or gravel riffles in small streams and medium to large rivers, Range in RRTV: Ohio, Indiana (possibly extirpated)

White wartyback pearlymussel (*Plethobasus cicatricosus*) Lead: Region 4 Status: Endangered Habitat: Large rivers in gravel Range in RRTV: Indiana (possibly extirpated)

Winged mapleleaf (*Quadrula fragosa*) Status: Endangered, Habitat: Medium to large rivers in mud, sand, or gravel, Range in RRTV: Minnesota, Missouri, Wisconsin

INSECTS

Hines emerald dragonfly (*Somatochlora hineana*) Status: Endangered, Habitat: Spring fed wetlands, wet meadows and marshes; calcareous streams & associated wetlands overlying dolomite bedrock, Range in RRTV: Illinois, Michigan, Missouri, Wisconsin

Hungerford's crawling water beetle (*Brychius hungerfordi*) Status: Endangered, Habitat: Cool riffles of clean, slightly alkaline streams; known to occur in only 3 isolated locations, Range in RRTV: Michigan

Mitchell's satyr butterfly (*Noenympha mitchelli mitchelli*) Status: Endangered Habitat: Fens; wetlands characterized by calcareous soils which are fed by carbonate-rich water from seeps and springs, Range in RRTV: Indiana, Michigan, Ohio

CRUSTACEANS

Illinois cave amphipod (*Gammarus acherondytes*) Status: Endangered, Habitat: cave streams, Range in RRTV: Illinois (currently found in 3 caves)

PLANTS

Decurrent false aster (*Boltonia decurrens*) Status: Threatened, Habitat: Disturbed alluvial soils (Mississippi and Illinois River alluvial floodplain), Range in RRTV: Illinois, Missouri

Dwarf lake iris (*Iris lacustris*) Status: Threatened, Habitat: Partially shaded sandy-gravelly soils on lakeshores, Range in RRTV: Michigan, Wisconsin

Eastern prairie fringed orchid (*Platanthera leucophaea*) Status: Threatened, Habitat: Mesic to wet prairies and meadows, Range in RRTV: Illinois, Iowa, Michigan, Ohio, Wisconsin

Fassett's locoweed (*Oxytropis campestris* var. *chartaceae*) Status: Threatened, Habitat: Open sandy lakeshores, Range in RRTV: Wisconsin

Houghton's goldenrod (*Solidago houghtonii*) Status: Threatened, Habitat: Sandy flats along Great Lakes shores, Range in RRTV: Michigan

Michigan monkey-flower (*Mimulus glabratus* var. *michiganensis*) Status: Endangered, Habitat: Soils saturated with cold flowing spring water; found along seepages, streams and lakeshores, Range in RRTV: Michigan

Minnesota dwarf trout lily (*Erythronium propullans*) Status: Endangered, Habitat: North facing slopes & floodplains in deciduous forests, Range in RRTV: Minnesota

Price's potato-bean (*Apios priceana*) Status: Threatened, Habitat: Wet floodplain forests, shrubby swamps, Range in RRTV: Illinois (possibly extirpated)

Running buffalo clover (*Trifolium stoloniferum*) Status: Endangered, Habitat: Disturbed bottomland meadows; disturbed sites that have shade during part of each day, Range in RRTV: Indiana, Missouri, Ohio

Virginia spiraea (*Spiraea virginiana*) Status: Threatened, Habitat: Stream banks and floodplains,
Range in RRTV: Ohio

Western prairie fringed orchid (*Platanthera praeclara*) Status: Threatened, Habitat: Wet prairies
& sedge meadows, Range in RRTV: Iowa, Minnesota, Missouri

Appendix IX: Acronyms and Definitions

Available online at www.rrt5.org/RCPACPMMain/RCPACPAppearices/AcronymsDefinitions.aspx

Appendix IX: Acronyms and Definitions

1.0 ACRONYMS AND DEFINITIONS

1.1 Definitions

Area Committee As provided for by Sections 311(a)(18) and (j)(4) of the Clean Water Act (CWA), means the entity appointed by the President consisting of members from qualified personnel of Federal, State, and local agencies with responsibilities that include preparing an Area Contingency Plan for 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 (ACP) As provided for by Sections 311(a)(19) and (j)(4) of CWA, means the plan prepared by an Area Committee that is developed to be implemented in conjunction with the NCP and RCP, in part to address removal of a worst case discharge and to mitigate or prevent a substantial threat of such a discharge from a vessel, offshore facility, or onshore facility operating in or near an Area designated by the President.

Coastal waters As defined in the NCP, for the purposes of classifying the size of discharges, the waters of the coastal zone except for the Great Lakes and specified ports and harbors on inland rivers. Precise boundaries are identified in U.S. Coast Guard/U.S. Environmental Protection Agency agreements, Federal Regional Contingency Plans and Area Contingency Plans.

Coastal zone As defined in the NCP, 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 U.S. EPA/USCG agreements and identified in Federal Regional Contingency Plans. No ports or harbors are designated in Region 5.

Discharge As defined by Section 311(a)(2) of CWA, includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil, but excludes discharges in compliance with a permit under Section 402 of the CWA, discharges resulting from circumstances identified and reviewed and made a part of the public record with respect to a permit issued or modified under Section 402 of the CWA, and subject to a condition in such permit, or continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under Section 402 of the CWA, that are caused by events occurring within the scope of relevant operating or treatment systems. For purposes of the NCP, discharge also means substantial threat of discharge.

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, 42 U.S.C. et seq.) 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: public water supplies, publicly managed use areas, and Tribal use areas.

Emergency Planning and Community Right-to-Know Act (EPCRA) Title III Section 300. of SARA; created a system of State and local planning agencies for chemical emergencies and provided a way for communities to gain information about potential chemical hazards. EPCRA's mandates cover three main topics emergency planning, emergency notification requirements, and requirements for reporting hazardous chemical inventories.

Environmentally sensitive areas Areas identified as a priority for protection and special attention during cleanup in the event of a pollution incident. Designations of types of areas considered to be sensitive can be found in 1) the U.S. Fish and Wildlife Annex (Appendix IX) and 2) the Guidance for Facility and Vessel Response Plans Fish and Wildlife and Sensitive Environments, published by Department of Commerce/National Oceanic and Atmospheric Administration. In addition to this definition, Area Committees may include any additional areas determined to be "sensitive." These areas are mapped in Region 5 and are available on paper and CD-ROM as a companion to this Plan.

4202.(a)(4)(B)(ii)

Hazardous substance As defined by section 101(14) of CERCLA, any substance designated pursuant to section 311(b)(2)(A) of the CWA; any element, compound, mixture, solution, or substance designated pursuant to section 102 of CERCLA; any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (but not including any waste the regulation of which under the Solid Waste Disposal Act [42 U.S. C. 6901 et seq.] has been suspended by Act of Congress); any toxic pollutant listed under section 307(a) of the CWA; any hazardous air pollutant listed under section 112 of the Clean Air Act; and any imminently hazardous chemical substance or mixture with respect to which the U.S. EPA Administrator has taken action pursuant to section 7 of the Toxic Substances Control Act (TSCA). This term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance in the first sentence of this paragraph, and does not include natural gas, natural gas liquids, liquified natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and synthetic gas).

Inland waters As defined in the NCP, for the purposes of classifying the size of discharges, means those waters of the United States in the inland zone, waters of the Great Lakes, and specified ports and harbors on inland rivers.

Inland zone As defined in the NCP, 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 U.S. EPA/USCG agreements and identified in Federal regional contingency plans.

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), Title III Section 301(c) of SARA.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP) As required by section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. 9605, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), Pub. L. 99-499, collectively called (CERCLA), and by section 311(d) of the Clean Water Act (CWA), 33 U.S.C. 1321(d), as amended by the Oil Pollution Act of 1990 (OPA), Pub. L. 101-380, the NCP provides nationwide organizational structure and procedures for responding to discharges of oil and releases of hazardous substances, pollutants and contaminants. In Executive Order (E.O.) 12777 (56 FR 54757, October 1991), the President delegated to the Environmental Protection Agency (EPA) the responsibility for the amendment of the NCP in coordination with members of the National Response Team (NRT) as well as the Federal Emergency Management Agency (FEMA) and the Nuclear Regulatory Commission to avoid inconsistent or duplicative requirements in the emergency planning responsibilities of those agencies.

National Pollution Fund Center (NPFC) As defined by Section 7 of Executive Order 12777, the NPFC is the entity established by the Secretary of the Department of Transportation whose function is the administration of the Oil Spill Liability Trust Fund (OSLTF). This includes access to the OSLTF by Federal Agencies, States, and designated trustees for removal actions and initiation of natural resource damage assessments, as well as claims for removal costs and damages.

Natural Resource Trustees Officials representing State, Tribal, Federal, and foreign governments who are authorized to act pursuant to section 107(f) of CERCLA, section 311(f)(5) of the CWA, or section 10006 of the OPA when there is injury or threat to natural resources, including their supporting ecosystems, as a result of a release of a hazardous substance or a discharge of oil. Natural resources means land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources.

Navigable waters As defined by 40 CFR 110.1, the term navigable waters includes (a) 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; (b) Interstate waters, including interstate wetlands; (c) All other waters such as intrastate lakes, rivers, 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: (1) That are or could be used by interstate or foreign travelers for recreational or other purposes; (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; (3) That are used or could be used for industrial purposes by industries in interstate commerce; (d) All impoundments of waters otherwise defined as navigable waters under this Section; (e) Tributaries of waters identified in (a) through (d) of this definition, including adjacent wetlands; and (f) Wetlands adjacent to waters identified in (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. Water 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 CWA, the final authority regarding CWA jurisdiction remains with U.S. EPA.

Oil As defined by Section 311(a)(1) of CWA, means oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil. Oil, as defined by Section 1001 of OPA means oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged oil, but does not include petroleum, including crude oil or any fraction thereof, which is specifically listed or designated as a hazardous substance under paragraphs (A) through (F) of Section 101 (14) of CERCLA (42 U.S.C. 9601) and which is subject to the provisions of that Act.

Oil Spill Liability Trust Fund (OSLTF) As defined by the NCP, means the fund established under Section 9509 of the Internal Revenue Code of 1986 (26 U.S.C. Section 9509).

On-Scene Coordinator (OSC) As defined by the NCP, means the Federal official predesignated by U.S. EPA or USCG to coordinate and direct responses, or the government official designated by the lead agency to coordinate and direct removal actions under the NCP. In certain site-specific situations, DOD or DOE may also act as OSC.

Region 5 Regional Contingency Plan/Area Contingency Plan (RCP/ACP) Developed to fulfill the requirements of the NCP for both RCPs and ACPs, as well as relevant portions of the Federal Response Plan (FRP), particularly Emergency Support Function #10 for Hazardous Materials (ESF #10)

Regional Oil and Hazardous Substances Pollution Contingency Plan (RCP) As provided for by Section 300.210 (b) of the NCP, and under the auspices of the Regional Response Team (RRT), the RCP is the mechanism for planning and coordinating regional preparedness and response actions for discharges of oil and releases of hazardous substances.

Regional Response Team (RRT) As defined in the NCP, the regional response organization (consisting of a representative from each State in the region and representatives from 15 Federal Agencies) which acts as a regional body responsible for regional planning and coordination of preparedness and response actions involving oil and hazardous materials. The RRT coordinates assistance and advice to the OSC in the event of a major or substantial spill.

State Emergency Response Commission (SERC) As provided in SARA Section 301.(a), an individual or group of officials appointed by the State governor to implement the provisions of EPCRA (see above). The SERC coordinates and supervises the work of the Local Emergency Planning Committees and reviews local emergency plans annually.

Tribal Emergency Response Commission (TERC) As defined in the NCP, a group of officials appointed by Native American governing bodies to implement the provisions of EPCRA in the same manner as the SERCs. The TERC may designate local emergency planning districts and appoint LEPCs or act as an LEPC as needed, including reviewing and/or developing local emergency response plans.

Used oil Any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities.

Waste oil For the purposes of this Plan, waste oil is any oil that has been refined from crude oil, or any synthetic oil, that has been physically or chemically contaminated as a result of a spill.

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]).

Worst case discharge Worst case discharge as defined by section 311(a)(24) of the CWA, means, in the case of a vessel, a discharge in adverse weather conditions of its entire cargo, and, in the case of an offshore facility or onshore facility, the largest foreseeable discharge in adverse weather conditions.

1.2 Acronyms and Abbreviations

ACP	Area Contingency Plan
AOR	Area of Response
APHIS	Animal Plant and Health Inspection Service
API	American Petroleum Institute
ASCS	Agricultural Stabilization and Conservation Service
AST	Atlantic Strike Team
ATSDR	Agency for Toxic Substances and Disease Registry
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BOA	Basic Ordering Agreement
CANUSCENT	Regional Annex to Canada-United States Joint Inland Pollution Contingency Plan
CANUSLAK	Regional Annex to Canada-United States Joint Inland Pollution Contingency Plan
CANUSPLAIN	Regional Annex to Canada-United States Joint Inland Pollution Contingency Plan
CANUTEC	Canadian Transportation Emergency Center
CDC	Centers for Disease Control
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. Section 9601 et seq., also known as Superfund
CHEMTREC	Chemical Transportation Emergency Center
COTP	Captain of the Port (USCG)
CRREL	Cold Region Research Engineering Laboratory
CWA	Clean Water Act, as amended by OPA, 33 U.S.C. Section 1251 et seq.
DEM	Department of Emergency Management
DNR	Department of Natural
Resources DOA	Department of Agriculture
DOC	Department of Commerce
DOD	Department of Defense
DOE	Department of Energy
DOI	Department of the Interior
DOJ	Department of Justice
DOL	Department of Labor
DOS	Department of State
DOT	Department of Transportation

DRG	District Response Group (USCG)
DWRO	Director of Western Rivers Operations
EMD	Emergency Management Division
EPCRA	Emergency Planning and Community Right-to-Know Act of 1986 (Title III of SARA)
EPIC	Environmental Photographic Interpretation Center
ERB	Emergency Response Branch
ERCS	Emergency Response Cleanup Services
ERD	Emergency Response Division
ERS	Emergency Response Section
ERT	Environmental Response Team
ERU	Emergency Response Unit
ESF	Emergency Support Function
ESI	Environmental Sensitivity Index
FCO	Federal Coordinating Officer
FEMA	Federal Emergency Management Agency
FNS	Food and Nutrition Service
FPN	Federal Project Number
FRERP	Federal Radiological Emergency Response Plan
FRMAP	Federal Radiological Monitoring and Assessment Plan
FRP	Facility Response Plan
FRP/ESF	Federal Response Plan/Emergency Support Function
FS	Feasibility Study
FSIS	Food Safety and Inspection Service
FWPCA	Federal Water Pollution Control Act
GLACIER	Great Lakes Area Computerized Inventory for Emergency Response
GLC	Great Lakes Commission
GLERL	Great Lakes Environmental Research Laboratory
GLIFWC	Great Lakes Indian Fish and Wildlife Commission
GSA	General Services Administration
HAZMAT	hazardous material(s)
HHS	Department of Health and Human Services
HMIX	Hazardous Materials Information Exchange
IAG	Interagency Agreement
IAPC	Inland Area Planning Committee
IC	Incident Commander
ICP	Incident Command Plan
ICS	Incident Command System
IDEM	Indiana Department of Environmental Management
IDPH	Indiana Department of Public Health
IEMA	Illinois Emergency Management Agency
IEPA	Illinois Environmental Protection Agency
IJC	International Joint Commission

INDOT	Indiana Department of Transportation
ISDH	Indiana State Department of Health
ISP	Indiana State Police
LAT	Lead Administrative Trustee
LEPC	Local Emergency Planning Committee
MASS	Modeling and Simulation Studies
MDA	Michigan Department of Agriculture
MDEQ	Michigan Department of Environmental Quality
MDPH	Michigan Department of Public Health
MERC	Michigan Emergency Response Commission
MLC	Marine Logistics Command
MMS	Mines and Minerals Service
MOU	Memorandum of Understanding
MPCA	Minnesota Pollution Control Agency
MSDS	Material Safety Data Sheet
MSO	Marine Safety Office
MSP	Michigan State Police
NCP	National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR Part 300
NFA	National Fire Academy
NIH	National Institutes of Health
NIIMS	National Interagency Incident Management System
NIOSH	National Institute for Occupational Safety and Health
NMFS	National Marine Fisheries Service
NPFC	National Pollution Fund Center
NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Service
NRC	National Response Center or Nuclear Regulatory Commission
NRDA	Natural Resources Damage Assessment
NRT	National Response Team
NSF	National Strike Force
NSFCC	National Strike Force Coordination Center
NWS	National Weather Service
OEPA	Ohio Environmental Protection Agency
OEPC	Office of Environmental Policy and Compliance
OISC	Office of the Indiana State Chemist
OPA	Oil Pollution Act of 1990, 33 U.S.C. Section 2701
OPS	Office of Pipeline Safety
ORIA	Office of Radiation and Indoor Air
ORSANCO	Ohio River Valley Water Sanitation Commission
OSC	On-Scene Coordinator
OSFM	Office of the State Fire Marshall
OSHA	Occupational Safety and Health Administration

OSHWM	Office of Solid and Hazardous Waste Management
OSLTF	Oil Spill Liability Trust Fund
OSRO	Oil Spill Removal Organization
OSSM	On-Scene Spill Model
OSWER	Office of Solid Waste and Emergency Response
PHS	Public Health Service
PIAT	Public Information Assistance Team
POLREP	Pollution Report Message
PREP	National Preparedness for Response Exercises Program
PRFA	Pollution Removal Funding Authorization
PRP	Potentially Responsible Party
PUCO	Public Utilities Commission of Ohio
RCP	Regional Contingency Plan
RCRA	Resource Conservation and Recovery Act
REMM	Riverine Emergency Management Model
RERT	Radiological Emergency Response Team
RP	Responsible Party
RPM	Remedial Project Manager
RQ	Reportable Quantity
RRC	Regional Response Center
RROC	Regional RCRA Off-Site Coordinator
RRT	Regional Response Team
RRT5	Region 5 Regional Response Team
RSPA	Research and Special Programs Administration
SARA	Superfund Amendments and Reauthorization Act of 1986
SEHO	Safety and Health Officer
SEMA	State Emergency Management Agency
SEOC	State Emergency Operations Center
SERC	State Emergency Response Commission
SHPO	State Historic Preservation Officer
SLSDC	St. Lawrence Seaway Development Corporation
SONS	Spill of National Significance
SSC	Scientific Support Coordinator
START	Superfund Technical Assessment Team
SUPSALV	Supervisor of Salvage
TERC	Tribal Emergency Response Commission
TSCA	Toxic Substances Control Act
UCS	Unified Command System
UMR	Upper Mississippi River
UMRBA	Upper Mississippi River Basin Association
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
USDA	United States Department of Agriculture

U.S. EPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WDNR	Wisconsin Department of Natural Resources

Appendix X.
Memorandum of Agreement
for Emergency Responses to Oil and Hazardous Substances Release
between The Wisconsin Department of Military Affairs, Division of
Emergency Management,
The State of Wisconsin Department of Natural Resources and
The US Environmental Protection Agency, Region V,
The United States Coast Guard, Ninth District



**MEMORANDUM OF AGREEMENT FOR
EMERGENCY RESPONSES TO OIL AND HAZARDOUS SUBSTANCE RELEASES**

BETWEEN

**THE WISCONSIN DEPARTMENT OF MILITARY AFFAIRS, DIVISION OF
EMERGENCY MANAGEMENT**

THE STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

AND

**THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION V
THE UNITED STATES COAST GUARD, NINTH DISTRICT**

PARTIES

This Memorandum of Agreement is between the Wisconsin Department of Military Affairs, Division of Emergency Management, the Wisconsin Department of Natural Resources (State Agencies) and the U. S. Environmental Protection Agency (USEPA) for the inland zone portion of Wisconsin as defined in the Regional Contingency Plan (RCP) and the U. S. Coast Guard (USCG) for the coastal zone portion of Wisconsin as defined in the RCP (Federal Agencies) (See Attachment).

This Memorandum of Agreement neither expands nor abridges the rights of any party, including potentially responsible parties, not signatory to this Agreement.

BACKGROUND

An effective response to any type of emergency requires coordinated, cooperative and unified efforts of all involved parties. A comprehensive approach to emergency response focusing on oil and hazardous substances has been established through federal legislation and regulation such as the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the Clean Water Act (CWA), as amended by the Oil Pollution Act of 1990 (OPA 90) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). Prior to the enactment of the federal legislation above-referenced, the State of Wisconsin enacted Emergency Management and Hazardous Substance Spills legislation (as codified in Chapter 166 and §292.11 of the Wisconsin

State Statutes respectively) which enhance and serve as companions to the federal legislation. These laws were established to protect public health and safety and to ensure the integrity of the environment by providing a mechanism for planning and conducting response actions.

PURPOSE

Responsibility for planning for an effective emergency response to a release rests with representatives from the affected local communities, industries and the State and Federal Agencies. For the vast majority of cases, the local jurisdiction's Incident Commander will have sufficient expertise and resources to mount a timely and effective emergency response. However, for larger or more complicated emergency responses involving multiple jurisdictions, two or more states, or significant national or international efforts, a Unified Command will be more effective. The NCP recognizes the need for a cooperative effort which can be enhanced through Unified Command. Within Unified Command, the local jurisdiction affected by an oil or hazardous substance release works together with State and Federal agencies, as appropriate, and in the event of a release, the responsible parties. The affirmation of that local authority, alternatively known as "Home Rule", is formally delegated to local units of government under Article XI §3 of the Wisconsin Constitution and in §§59.03, 59.04 and 62.04 of the Wisconsin Statutes. Recognition of this local authority and responsibility during an oil or hazardous substance spill is consistent with the intent of OPA 90, CERCLA and the NCP.

POINTS OF AGREEMENT

The State of Wisconsin considers the retention of authority by local jurisdictions in emergency responses to be integral to the principle of "Home Rule" as codified in Article XI §3 of the Wisconsin Constitution and in §§59.03, 59.04 and 62.04 of the Wisconsin Statutes. In order to respond more effectively, local, State and Federal agencies must work together within the concept of "Home Rule". This can be accomplished by defining the roles and responsibilities of all involved parties in the Area Contingency Plan, the State Contingency Plan and the Regional Contingency Plan. The following points clarify how local, State and Federal agencies will cooperate and coordinate in the State of Wisconsin during an oil or hazardous substance release:

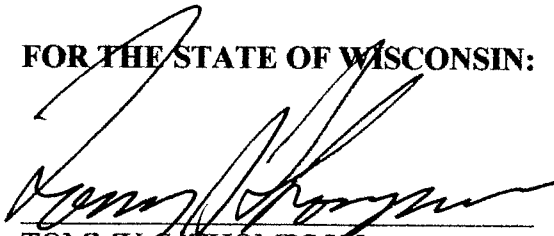
- Local units of government retain their respective authorities as delegated in Article XI §3 of the Wisconsin Constitution and in §§59.03, 59.04 and 62.04 of the Wisconsin Statutes.
- The State of Wisconsin retains its authority as provided in Chapter 166 and §292.11 of the Wisconsin Statutes.
- The Federal Agencies retain their authority and the ability to respond pursuant to the National Contingency Plan (NCP), CERCLA, CWA as amended by OPA 90, and the Constitution and laws of the United States.

- The local Incident Commander, who will normally be the first government representative on scene for a release, is expected to initiate public safety measures that are necessary to protect public health and welfare.
- Unified Command, when formed, shall include the local Incident Commander. The local Incident Commander, as delegated by the Chief Elected Official, will represent the authority of the local jurisdiction.
- The State and Federal Agencies will designate representatives to establish a Unified Command as outlined in the Area Contingency Plan and dependent upon the unique nature of the incident and emergency response expertise required.
- The local units of government, State and Federal Agencies will participate as members of the Unified Command during all stages of an emergency, from response to recovery, as provided in the Area Contingency Plan.
- All local, State and Federal Agencies and responsible parties, that are part of, or are reporting to, the Unified Command will retain their respective roles and responsibilities, and will function under the coordination of the Unified Command. Within the Unified Command, when State or Federal resources are required to effectively protect human health and the environment as indicated in the National Contingency Plan, overall coordination may shift from the local Incident Commander to a State or Federal On-Scene Coordinator. The Unified Command will, to the extent possible, form decisions by consensus among local units of government, State and Federal Agencies. It is acknowledged and agreed that neither the Federal, State or local authorities can direct each others resources without the approval from the jurisdiction who provided the resources.
- The Area Contingency Plan, the State Contingency Plan and the Regional Contingency Plan will reflect the intent of this Agreement.

Attachment: Appendix 1 to Region V Regional Contingency Plan

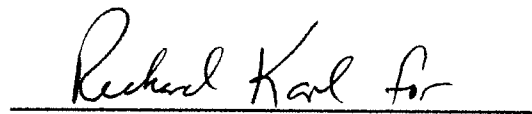
SIGNATURES

FOR THE STATE OF WISCONSIN:




TOMMY G. THOMPSON
Governor
Date: October 7, 1998

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY:



DAVID A. ULLRICH
Acting Regional Administrator
USEPA Region V
Date: 10-7-98

FOR THE U.S. COAST GUARD:



JOHN F. MCGOWAN
Rear Admiral, U.S. Coast Guard
Commander, Ninth Coast Guard District
Date: 10/7/98

APPENDIX 1: JURISDICTIONS IN REGION 5

1. REGIONAL AREAS

Region 5 has been divided into two operational areas, inland and coastal, which correspond to the areas in which U.S. EPA and USCG are responsible respectively for providing OSCs. The coastal operational area consists of the open waters of the Great Lakes, including Lake St. Clair, the interconnecting rivers, major bays, ports, and harbors of the Region 5 States; and the land surface, land substrata, ground water, and ambient air proximal to those waters. The inland operational area includes all other land territory of the six States of Region 5, including each State's inland lakes and rivers. Numerous Native American community reservations and treaty rights areas are also delineated within Region 5.

Two Coast Guard Districts share Federal Region 5. The Ninth Coast Guard District, headquartered in Cleveland, serves the Great Lakes drainage basin. The Eighth Coast Guard District, headquartered in New Orleans, serves the drainage basins of the upper Mississippi and the Ohio Rivers.

Within the Great Lakes coastal zone, the appropriate Captain of the Port (COTP) functions as the predesignated OSC for all oil and hazardous substance releases, subject to a DOT/U.S. EPA redelegation of certain CERCLA response authorities. U.S. EPA performs the following two categories of response actions within the coastal zone: 1) remedial actions for releases originating from facilities, and 2) all response actions for releases originating from hazardous waste management facilities.

The scope of the Eighth Coast Guard District response role is defined by a revised Memorandum of Understanding (MOU), between that District and U.S. EPA Region 5, signed by the Regional Administrator on April 12, 1993. The revised MOU assigned U.S. EPA as the predesignated OSC for the entire inland zone, including the inland river system within the Eighth Coast Guard District for responding to all discharges of oil and hazardous substances.

DOD or DOE provides OSCs for all response actions for releases of hazardous substances, pollutants, or contaminants which originate on any facility or vessel under the jurisdiction, custody, or control of DOD or DOE. In the case of a Federal agency other than U.S. EPA, USCG, DOD, or DOE, such agency shall provide OSCs for all removal actions necessitated by releases originating on any facility or vessel under its jurisdiction that are not emergencies.

U.S. EPA or USCG OSCs may be requested to provide technical assistance to the lead agency OSC who is responding to the release or threatened release. In the event of an emergency on Federal agency property, other than DOD or DOE, U.S. EPA or USCG retains response authority and U.S. EPA OSCs may respond and later initiate cost recovery actions against the potentially responsible party.

Definitions of the boundaries of OSC jurisdictions for Region 5 are provided in the following subsections. Where highways are used to delineate the boundary, the roadbed right-of-ways of the highway are included in the inland (U.S. EPA) zone.

2. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY OSC BOUNDARIES

2.1. U.S. EPA REGION 3 OSC BOUNDARIES

U.S. EPA Region 3 will provide OSCs for investigating and responding to releases to the main stem of the Ohio River from the Ohio-Pennsylvania boundary, mile 40.1, to the Kentucky-West Virginia boundary, mile 317.2. All releases in the above-named stretch of the Ohio River emanating from sources in West Virginia will be handled by U.S. EPA Region 3 personnel; those from sources in Region 5 will be handled by personnel from Region 5.

If either RRT is activated, the Eighth USCG District would be involved along the entire stretch of the Ohio River.

2.2. U.S. EPA REGION 4 OSC BOUNDARIES

U.S. EPA Region 4 will provide OSCs for investigating and responding to releases of oil or hazardous materials to the main stem of the Ohio River from the Kentucky-West Virginia boundary, mile 317.2, to its junction with the Mississippi River, mile 981.2. Releases in the above-named stretch of the Ohio River emanating from shoreline sources in U.S. EPA Region 4 will be handled by personnel of Region 4; those spills from shoreline sources in Ohio, Indiana, and Illinois will be handled by personnel from Region 5. Region 4 will have the responsibility for ensuring notification of water users downstream of the location of the release, including coordination with ORSANCO, the USCG Eighth District, and COE when a release occurs on the south shoreline or in the main stream of the Ohio River; Region 5 has a like responsibility, including coordination with ORSANCO, the USCG Eighth District, and COE when a release occurs on the north shoreline of the river.

Either Region, when requested by the other, may assume the functional OSC role for a particular incident. The decision to accept this responsibility will rest with the Region being requested on an incident-specific basis. Boundary lines do not preclude mutual assistance between the two agencies.

2.3. U.S. EPA REGION 7 OSC BOUNDARIES

U.S. EPA Region 7 will provide OSCs for investigating and responding to releases to the main stem of the Upper Mississippi River (UMR) when either Iowa or Missouri is the principal first responding State. U.S. EPA Region 5 will have jurisdiction for such releases within the State of Minnesota and where Minnesota, Wisconsin, or Illinois is the first principal responding State. When releases to the UMR main stem will result in significant response by more than one State, or when there is uncertainty as to the responding States, Region 7 will provide OSCs for such releases occurring between Cairo, Illinois, and Keokuk, Iowa (miles 0.0 to 354.5), and Region 5 above that point.

For spills from shore facilities and non-waterborne sources, OSCs will be provided by the Region in which the source is located.

2.4. U.S. EPA REGION 8 OSC BOUNDARIES

U.S. EPA Region 5 will provide OSCs for investigating and responding to releases to the main stem of the Red River of the North from its origin in Lake Traverse near Browns Valley, Minnesota, to the Canadian border. All spills to the above-named stretch of the Red River emanating from sources in North Dakota and South Dakota will be handled by Region 8 personnel.

South of the Browns Valley area, the boundary between South Dakota and Minnesota involves the headwaters of the Minnesota River flowing southward. Region 5 Spill Response personnel will respond

to releases to the main stem of the Little Minnesota River and Big Stone Lake southward to Ortonville, Minnesota. All releases to the above-named headwaters of the Minnesota River emanating from sources in South Dakota will be handled by Region 8 personnel; releases from sources in Minnesota will be handled by Region 5 personnel.

U.S. EPA Region 8 will provide communications as necessary with the Canadian Province of Manitoba concerning all releases occurring in waters flowing into Canada, including those emanating from Region 5.

3. NINTH COAST GUARD DISTRICT OSC BOUNDARIES

Eight USCG units provide OSCs for releases occurring within the coastal zone, each serving a specific geographic area. These geographic areas are defined as: the international boundary with Canada, the boundaries between the units (described at 33 CFR 3.45), and the boundary between the inland zone and the coastal zone. In most locations, the boundary between inland and coastal zones follows the near shore areas adjoining the Great Lakes and the interconnecting rivers.

The following subsections detail, for each of the eight units, which tributaries fall within the coastal zone and where a geographic feature, such as a highway, serves as the boundary.

3.1. MARINE SAFETY OFFICE, CHICAGO, ILLINOIS

1. Lake Michigan: within limits of COTP Chicago.
2. North Point Marina (Winthrop Harbor, Illinois): Entire marina.
3. Waukegan Harbor: Entire harbor.
4. Wilmette Harbor: From the entrance to the sluice gate.
5. Montrose Harbor (Chicago, Illinois): Entire harbor.
6. Belmont Harbor (Chicago, Illinois): Entire harbor.
7. Diversey Harbor (Chicago, Illinois): Entire harbor.
8. Chicago River: The outer harbor, limited to the waters outside the Chicago Lock and retaining walls, including the waters inside the lock gates.
9. Burnham Park Harbor (Chicago, Illinois): Entire harbor.
10. 59th Street Harbor (Chicago, Illinois): Entire harbor.
11. Jackson Park Harbor (Chicago, Illinois): Entire harbor.
12. Calumet Harbor and River (Chicago, Illinois): From the mouth of the Calumet River south to the north side of O'Brien Lock and Dam, including the waters inside the lock gates. From "The Forks" west to the temporary dike at the south boundary of Lake Calumet.
13. Hammond Marina: Entire marina.
14. Indiana Harbor (East Chicago, Indiana): Upstream to Conrail Railroad Bridge.
15. Pastrick Marina (East Chicago, Indiana): Entire marina.
16. Buffington Harbor (Gary, Indiana): Entire harbor.
17. Gary Harbor (Gary, Indiana): Entire harbor.
18. Burns Harbor (Burns Harbor, Indiana): From the entrance to the south end of deep draft slip.
19. Michigan City Harbor: Entrance to Bascule Bridge.
20. Betsie Lake (Frankfort): Entire lake throughout up to and including the mouth of the Betsie River to Highway M-22 bridge.
21. Arcadia Lake: Entire lake.
22. Portage Lake: Entire lake.
23. Manistee Lake (Manistee): Entire lake throughout up to and including the mouth of the Manistee River to Highway M-55 bridge.
24. Pere Marquette Lake (Ludington): Entire lake throughout up to and including the mouth of the Pere Marquette River to Old U.S. 31 bridge.
25. Pentwater Lake: Entire lake.

26. White Lake: Entire lake.
27. Muskegon/Bear Lake (Muskegon, Michigan): Entire lake throughout up to and including the Muskegon River to the U.S. 31 bridges.
28. Mona Lake: Entire lake.
29. Spring Lake: Entire lake.
30. Grand River: From the mouth to the end of the dredged channel at Buoy #78 (in Ottawa County approximately 17 miles upstream).
31. Pigeon Lake: Entire lake up to the fixed bridge in the intake channel of the J.H. Campbell power plant and on the eastern end up to the fixed bridge of Lakeshore Avenue.
32. Lake Macatawa: Entire lake to the end of the dredged channel marked by buoys #25 and #26 (eastern end of the lake in Holland).
33. Kalamazoo Lake (Douglas/Saugatuck): Entire lake up to and including the Kalamazoo River to the CSX Railroad bridge, approximately 11 miles upstream.
34. Black River (South Haven): From the mouth to the U.S. 31 bridge, approximately 2.6 miles upstream.
35. St. Joseph River (St. Joseph): From the mouth to the Somerleyton bridge, approximately 6.6 miles upstream.
36. Paw Paw River (Benton Harbor): From the mouth to the CSX Railroad bridge, approximately 3.2 miles upstream.
37. Galien River: from the mouth to the Highway 12 bridge, approximately 2 miles upstream.

3.2. MARINE SAFETY OFFICE, CLEVELAND, OHIO

1. Ashtabula River (Ashtabula, Ohio): Upstream to East 5th Street.
2. Black River (Lorain, Ohio): Upstream to the turning basin at the National Tube Division of U.S. Steel (river mile 3.0).
3. Conneaut River (Conneaut, Ohio): Upstream to the Bessemer and Lake Erie Railroad Swing Bridge at the Pittsburg and Conneaut Dock Company (river mile 0.75).
4. Cuyahoga River (Cleveland, Ohio): Upstream to the mouth of Big Creek in the Metropolitan Parks (river mile 7.5).
5. Grand River (Fairport Harbor, Ohio): Upstream to the turning basin at Osborn Concrete and Tank Company.

In addition to the river miles mentioned above, the coastal/inland zone demarcation shall be defined by the boundary on the highway created by State Route 2 from Vermilion to North Perry and then U.S. Route 20 from North Perry to the Ohio/Pennsylvania border. The coastal zone being all waters and adjacent shoreline north of this boundary, any incident on the above-mentioned highways will be the responsibility of U.S. EPA but it should be noted that the COTP may be requested to respond as First Federal Official on scene until a U.S. EPA OSC can respond.

3.3. MARINE SAFETY OFFICE, DETROIT, MICHIGAN

1. Lake Huron: From Latitude 44-43' south and east to international boundary.
2. Saginaw Bay: The entire Saginaw Bay.
3. St. Clair River: East to international boundary.
4. Lake St. Clair: East to international boundary.
5. Detroit River: South to Detroit River Light and east to international boundary.
6. Au Gres River (Au Gres, Michigan): Upstream to U.S. 23 Bridge.
7. Au Sable River (Oscoda, Michigan): Upstream to Mill Street Bridge.
8. Bird Creek (Port Austin, Michigan): Upstream to Spring Street Bridge.
9. Belle River (Port Huron, Michigan): Upstream to M-29 Broadway Bridge.
10. Black River (Port Huron, Michigan): Upstream to and including Black River Canal.
11. Clinton River (Harrison Township, Michigan): Up to and including Clinton River Spillway.

12. Ecorse River (Ecorse, Michigan): Upstream to Jefferson Avenue Bridge.
13. Huron River (Rockwood, Michigan): Dixie Highway Bridge 1.8 miles above mouth of river.
14. Milk River (St. Clair Shores, Michigan): Up to Jefferson Avenue Bridge.
15. Pigeon River (Caseville, Michigan): Upstream to M-25 Bridge.
16. Pine River (St. Clair, Michigan): Upstream to CSX Railroad Bridge.
17. River Rouge (Saginaw and Bay City, Michigan): Upstream to .5 mile above Center Street Bridge in Saginaw.
18. Salt River (Chesterfield Township, Michigan): Upstream to Callens Road Bridge.
19. Sebawaing River (Sebawaing, Michigan): Upstream to M-25 Bridge.

3.4. MARINE SAFETY OFFICE, DULUTH, MINNESOTA

Within Duluth/Superior Harbor, COTP Duluth will assume the responsibility for providing FOSCs in Duluth/Superior Harbor to the mouths of all small tributary rivers and creeks entering into the harbor, plus the St. Louis River serviced by existing patrols and aids to navigation up to the Highway Bridge on Route 23 at Fond du Lac, Minnesota, and the waters of Lake Superior within COTP Duluth.

3.5. MARINE SAFETY OFFICE, MILWAUKEE, WISCONSIN

1. All waters of Lake Michigan within COTP Milwaukee's zone.
2. Pike Creek (Kenosha): To the Sixth Avenue Bridge.
3. Root River (Racine): To the Main Street Bridge.
4. Oak Creek (Milwaukee): To its mouth.
5. Kinnickinnic River (Milwaukee): To the South Kinnickinnic Avenue Bridge.
6. Menominee River (Milwaukee): To mile 2 (25th Street Bridge).
7. Milwaukee River (Milwaukee): To the North Humboldt Avenue Bridge.
8. Sauk Creek (Port Washington): To the Wisconsin Street Bridge.
9. Sheboygan River (Sheboygan): To the Pennsylvania Avenue Bridge.
10. Manitowac River (Manitowac): To the C&NW Railroad Bridge.
11. West Twin River (Two Rivers): To the 16th and Madison Streets Bridge.
12. East Twin River (Two Rivers): To the 22nd Street Bridge.
13. Kewaunee River (Kewaunee): To the Park Street Bridge.
14. Ahnapee River (Algoma): To the 2nd Street Bridge.
15. Fox River (Green Bay): To the State Route 172 Bridge.
16. East River (Green Bay): To the Monroe Avenue Bridge.
17. Oconto River (Oconto): To the turning basin.
18. Menominee River (Marinette, Wisconsin to Menominee, Michigan): To the Dunlap Avenue (Highway 41) Bridge.

3.6. MARINE SAFETY OFFICE, SAULT STE. MARIE, MICHIGAN

1. Lake Superior: The waters, bays, tributaries, and adjoining shoreline of Lake Superior within U.S. territory, eastward from the westernmost boundary of the Area of Operations (AOR) to a line between Point Iroquois running northeast to Gros Cap Reef Light on the International Boundary.
2. St. Mary's River: The waters, bays, tributaries, and adjoining shoreline of the St. Mary's River within U.S. territory, from a line between Point Iroquois and Gros Cap Reef Light southward to a line between Detour Reef Light and Crab Island Shoal Light, including the waters of Potagannissing Bay.
3. Lake Huron: The waters, bays, tributaries, and adjoining shoreline of Lake Huron within U.S. territory, northward from the southernmost boundary of the AOR, west to the Straits of Mackinaw Bridge.
4. Lake Michigan: The waters, bays, tributaries, and adjoining shoreline of Lake Michigan, eastward from the westernmost boundary of the AOR, to the Straits of Mackinaw Bridge.

3.7. MARINE SAFETY OFFICE, TOLEDO, OHIO

1. River Raisin (Monroe, Michigan): Upstream to the turning basin (river mile 1.5).
2. Maumee River (Toledo, Ohio): Upstream to the I-75 Bridge.
3. Portage River (Port Clinton, Ohio): Upstream to Highway 163.
4. Sandusky Bay (Sandusky, Ohio): Upstream to Highway 2.
5. Huron River (Huron, Ohio): Upstream to turning basin (mile .5).
6. Lake Erie: The open waters, bays, harbors, and mouths of tributaries within the COTP Toledo zone.

3.8. NINTH COAST GUARD DISTRICT RESPONSES IN THE INLAND ZONE

Ordinarily, the Ninth Coast Guard District will not provide the OSC for a release occurring in the inland zone. However, where a Marine Safety Officer responds in the inland zone to a marine casualty or other incident pursuant to USCG port safety and commercial vessel safety responsibilities, that officer will serve as the First Federal Official On Scene, pending arrival of the predesignated U.S. EPA OSC. In this capacity, that officer will manage any cleanup actions performed by the responsible party and, if necessary, will initiate a Federal removal.

The U.S. EPA Region 5 office may request that the Ninth Coast Guard District provide the OSC for a release in the inland zone, regardless of source, because of the particular circumstances of the incident.

4. EIGHTH COAST GUARD DISTRICT OSC BOUNDARIES

Agency responsibilities have been reassigned to more clearly reflect the inland and coastal zone delineation. The revised MOU assigns the U.S. EPA as the predesignated OSC for the entire inland zone, including the inland river system within the Eighth District. The previous agreement designating specified ports and harbors as portions of the Coastal Zone is no longer applicable.

The Eighth District will assist the predesignated U.S. EPA OSC where there is a discharge or release of oil or hazardous substances, or a threat of such a discharge or release, into or on navigable waters. Upon request by the U.S. EPA OSC, the USCG may act on behalf of U.S. EPA, assuming the functional role and responsibilities of the OSC. If the USCG is the first Federal official on-scene, the USCG will notify the U.S. EPA OSC and act as the OSC until such time as the U.S. EPA OSC arrives. If the incident involves a commercial vessel, a transfer operation, or a marine transportation related facility, the USCG will provide the OSC.

Appendix XI.
Memorandum of Agreement
between United States Environmental Protection Agency Region 5
and United States Coast Guard
Regarding Response Boundaries for Oil and Hazardous Substances
Pollution Incidents and Federal On-Scene Coordinator Responsibilities

MEMORANDUM OF AGREEMENT
BETWEEN
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5
AND
UNITED STATES COAST GUARD
REGARDING RESPONSE BOUNDARIES FOR
OIL AND HAZARDOUS SUBSTANCES POLLUTION INCIDENTS AND
FEDERAL ON-SCENE COORDINATOR RESPONSIBILITIES

Section 1: PARTIES

The Parties to this Memorandum of Agreement (MOA) are the United States Environmental Protection Agency (EPA), Region 5 and the United States Coast Guard, Eighth District ("USCG D8").

Section 2: PURPOSE AND AUTHORITIES

- A. The intent of this MOA is to delineate the Region 5 inland zone geographical boundaries establishing responsibility for the predesignation of Federal On-Scene Coordinators (FOSCs) for pollution response, pursuant to the Federal Water Pollution Control Act, as amended, also known as the Clean Water Act (CWA), 33 U.S.C. §§ 1251 – 1387; and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. § 300.120.
- B. This agreement is established under the provisions of 33 U.S.C. §§ 1251 – 1387, 14 U.S.C. § 93(a)(20), 14 U.S.C. § 141, 40 C.F.R. § 300.120, and EPA Delegation 1-11.

Section 3: DEFINITION

Except where otherwise specifically defined in the context of its use herein, or where specifically set forth below, terms used in this MOA shall have the meaning set forth in federal law. The definition supplied below is meant to enhance and supplement the understanding of those terms, as used in federal law, and is not meant to usurp or alter their meaning under federal law.

- **Commercial Vessels.** "Commercial vessels" are vessels in commercial service that conduct any type of trade or business involving the transportation of goods or individuals, except combatant vessels. This definition includes: tank vessels (ships and barges); freight vessels and inspected and uninspected barges; commercial fishing vessels; inspected passenger vessels; and uninspected towing vessels. This definition excludes recreational vessels, permanently moored structures, and cranes, generators, and temporary storage devices not an integral part of an uninspected barge, which, while they may appear to be vessels or part of the vessel are not inspected by the Coast Guard, e.g., an uninspected deck barge that experiences a ruptured hydraulic line from non integral crane would be an EPA-led response.

Section 4: ENTITIES WITHIN THE GEOGRAPHICAL ZONE

- A. The EPA Region 5 geographical zone includes the area that covers Illinois, Indiana, Minnesota, Ohio, and Wisconsin within U.S. Coast Guard Eighth District.
- B. The following USCG D8 commands fall within the geographical zone under this MOA:
 - 1. Sector Upper Mississippi River: The Sector Upper Mississippi River Captain of the Port (COTP) area of responsibility (AOR) is detailed within 33 C.F.R. § 3.40-40.
 - 2. Sector Ohio Valley: The Sector Ohio Valley Captain of the Port (COTP) area of responsibility (AOR) is detailed within 33 C.F.R. § 3.40-65.
 - 3. Marine Safety Unit (MSU) Pittsburgh: COTP MSU Pittsburgh is responsible for an area that covers Southwestern Pennsylvania and portions of Ohio and West Virginia. The AOR includes the following within EPA Region 5: Ohio River MM 40.5 to 112.0.

Section 5: INLAND ZONE BOUNDARY DESIGNATIONS

- A. EPA Region 5 designation:
 - 1. EPA Region 5 provides the predesignated FOSC for pollution response in the inland zone, as defined in the NCP, 40 C.F.R. § 300.5. All discharges or releases, or a substantial threat of such a discharge or release of oil, hazardous substances, pollutants or contaminants originating within the inland zone will be the responsibility of the EPA. Included are discharges and releases from unknown sources.
 - 2. The EPA FOSC is the predesignated FOSC for all areas or pollution incidents within Region 5 with exception of Section 5.B and the general response provisions delineated below. Responsibilities regarding inland waterways between EPA Regions (i.e., Ohio River and the Mississippi River) are delineated in separate Memorandums of Understanding (MOUs) among the EPA Regions.
- B. USCG D8 COTP FOSC Predesignation:
 - 1. The EPA Region 5 predesignates the relevant USCG D8 COTP as the FOSC in response to an incident in the inland zone when it:
 - (a) Involves either: (1) a commercial vessel, including a commercial vessel that has partially or completely sunk; (2) a commercial vessel transfer operation; or (3) it is within or originating from the USCG regulated portion of a facility; and

- (b) Results in a discharge or substantial threat of a discharge of oil or release or substantial threat of a release of a hazardous substance into or on the navigable waters of the United States or adjoining shorelines.
- 2. For the purposes of this MOA, the USCG regulated portion of a facility extends from the facility transfer system's connection with the vessel to the first valve inside the secondary containment surrounding tanks in the non-transportation-related portion of the facility or, in the absence of secondary containment, to the valve or manifold adjacent to the tanks comprising the non-transportation-related portion of the facility, unless another location has otherwise been agreed to by the COTP and the appropriate federal official.

Section 6: GENERAL RESPONSE PROVISIONS

- A. These provisions apply to all EPA FOSCs and USCG COTP/FOSCs serving EPA Region 5.
- B. The USCG and EPA Region 5 will assist each other consistent with agency responsibilities and authorities through the cognizant COTP and the inland zone predesignated EPA FOSC.
- C. These provisions do not preclude mutual assistance between the two agencies. In addition to 40 C.F.R. § 300.135(b), in this EPA Region, the EPA and the USCG will carry out agency and specific pollution response responsibilities under the NCP and the Regional Contingency Plan/Area Contingency Plan (RCP/ACP), and will assist each other to the fullest extent possible to prevent or minimize the impacts of a discharge of oil, or substantial threat of a discharge of oil, or release, or a substantial threat of release of a hazardous substance where each respective agency has jurisdiction.
- D. Such mutual assistance will be provided based on notification and mutual consent that the assistance is requested and necessary to respond to: (i) a discharge of oil, or a substantial threat of a discharge of oil, (ii) a release, or substantial threat of a release of a hazardous substance, (iii) a release or substantial threat of a release of pollutants or contaminants which may present an imminent and substantial endangerment to the public health or welfare. Notification will be provided by the COTP to the EPA FOSC, or by the EPA FOSC to the COTP, whenever a spill is discovered that appears to warrant the provision of mutual assistance. When it is mutually agreed that the provision of such assistance is beneficial, an FOSC from either organization may serve in the following capacities:
 - 1. As the FOSC for that incident;
 - 2. As the Federal On-Scene Coordinator's Representative (FOSCR) for the predesignated OSC; or,
 - 3. Perform duties as first federal official as outlined in 40 C.F.R. § 300.135(b).

- E. Regardless of any agreements within this MOA, it is the responsibility of the EPA and the USCG to ensure that the other agency has properly taken over FOSC responsibilities in its zone prior to relieving itself of any FOSC responsibility. Any verbal agreement to transfer FOSC responsibilities shall be followed up in writing and/or documented in a Situation Report (SITREP) or Pollution Report (POLREP).
- F. When the COTP is not notified via the National Response Center, the EPA shall notify the COTP immediately for all known commercial vessel and USCG regulated facility spills or releases in the inland zone.
- G. The USCG COTP shall inform the EPA Region 5 duty officer immediately when the reported discharge or release is an actual or potential medium or major discharge or release as defined in 40 C.F.R. § 300.5 and required by 40 C.F.R. § 300.320. Additionally, the COTP shall provide a verbal report or SITREP/POLREP for all other response actions.
- H. The USCG D8 COTP in each zone shall provide, annually, a list of fixed USCG regulated facilities (33 C.F.R. §§ 126, 127, and 154) located in the inland zone of their area of responsibility to the Co-Chairs of the Regional Response Team.
- I. In addition, EPA Region 5 will notify the COTP and the Eighth Coast Guard District of any Regional Contingency Plan/Area Contingency Plan (RCP/ACP) meetings for the participation of Coast Guard units in the regional contingency planning process.

Section 7: OTHER PROVISIONS

- A. Nothing in this Agreement is intended to conflict with current law or regulation or the directives of the United States Coast Guard or the Environmental Protection Agency, or any department in which these parties may be operating, nor any such laws, regulations or directives that may be promulgated hereafter. If a term of this Agreement is inconsistent with such authority, then that term shall be invalid, but the remaining terms and conditions of this Agreement shall remain in full force and effect.
- B. Notwithstanding any terms of this Agreement, nothing herein shall be construed to diminish or supersede any rights or authorities available to the parties. This MOA neither amends nor repeals any other requirement or authority conferred by any other provision of law. Nothing in this MOA shall limit, deny, amend, modify, or repeal any other requirements or authorities of agencies of the United States.

- C. This MOA does not create any right or benefit, substantive or procedural, enforceable by law or equity, by persons who are not party to this Agreement, against the EPA or USCG, their officers or employees, or any other person. This MOA does not direct or apply to any person outside of the EPA or USCG.
- D. Each party agrees that should a third party claim arise under the terms and conditions or the Federal Tort Claims Act (FTCA), Title 28, U.S.C. §§ 1346 and 2671 et seq., or of the laws of any state based on negligence or a wrongful act or omission, the party whose employee(s)' conduct gave rise to the claim shall be responsible for the investigation and disposition of said claim. For claims involving conduct of employees of more than one party arising out of a joint activity conducted pursuant to this MOA, the parties agree to work cooperatively to determine which entity will be primarily responsible for the investigation and disposition of the claim.
- E. As required by the Anti-deficiency Act, 31 U.S.C. §§ 1341 and 1342, all commitments made by the EPA and USCG in this MOA are subject to the availability of appropriated funds and budget priorities. Nothing in this MOA, in and of itself, obligates either party to expend appropriations or to enter into any contract, assistance agreement, interagency agreement or incur other financial obligations. Any transaction involving transfers of funds between the parties to this MOA will be handled in accordance with applicable laws, regulations and procedures under separate written agreements. This MOA will be incorporated by reference or included as an enclosure to any reimbursable agreement between the USCG and EPA resulting from this MOA.

Section 8: EFFECTIVE DATE, MODIFICATION, AND TERMINATION

This Agreement will become effective upon the signature of both parties. The Agreement will be subject to review and amendment coincident with each periodic review of the Regional, Area and other applicable contingency plans and at any other time at the request of either of the parties. It may be terminated by either party, effective 30 calendar days after providing written notice to the other. It will remain in effect until modified by mutual agreement or terminated.

Section 9: POINTS OF CONTACT

Points of Contact for the coordination, support, and implementation of this Agreement are as follows:

- A. EPA Region 5 – Mr. Jason El-Zein, Chief, Emergency Response Branch 1, Superfund Division, Chicago, IL at (734) 692-7661; EPA's 24 hour number: (312) 353-3218.
- B. Eighth Coast Guard District – Captain Jose Jimenez, Chief, Response Division, New Orleans, LA at (504) 671-2229; USCG D8's 24 hour number: (504) 589-6225.

Section 10: SUPERSEDING POWER

Regional and Area Contingency Plans of the signatory agencies will be amended to reflect the geographical boundaries and agreements contained herein. This MOA supersedes other MOU/MOAs previously in effect concerning the FOSC boundaries for purposes of pollution response within EPA Region 5.

Agreed to and entered into by the undersigned.

For U.S. EPA Region 5:



Date: 2/21/17

Robert A. Kaplan
Acting Regional Administrator
U.S. EPA Region 5
Chicago, IL

For USCG D8:



Date: 15 MAR 17

David R. Callahan
Rear Admiral, U.S. Coast Guard
Commander, Eighth Coast Guard District
New Orleans, LA

Appendix XII.
Memorandum of Understanding
Between United States Coast Guard Ninth District
and United States Environmental Protection Agency, Region 5
Regarding Agency Participation on Area Committees to
Execute the National Contingency Plan

**MEMORANDUM OF UNDERSTANDING BETWEEN
UNITED STATES COAST GUARD NINTH DISTRICT AND
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION 5
REGARDING AGENCY PARTICIPATION ON AREA COMMITTEES TO
EXECUTE THE NATIONAL CONTINGENCY PLAN**

1. **PARTIES.** The parties to this Memorandum of Understanding (Agreement) are the Ninth Coast Guard District (USCG) and the United States Environmental Protection Agency, Region 5 (US EPA Region 5).
2. **AUTHORITY.** This Agreement is authorized under the provisions of
 - a. Title 33, United States Code Section 1321
 - b. Title 42, United States Code Chapter 103
 - c. Title 14, United States Code Section 93
 - d. 40 C.F.R. Part 300
 - e. Executive Order 12580, Jan. 23, 1987 (52 Fed Reg. 2923)
 - f. Executive Order 12777, Oct. 22, 1991 (56 Fed Reg. 54757)
 - g. Designation of Areas and Area Committees, April 24, 1992 (57 Fed Reg. 15198) and
 - h. United States Environmental Protection Agency, Headquarters Delegations 1-11 and 2-91
3. **PURPOSE.** The purpose of this Agreement is to establish the framework for cooperation between the USCG and EPA Region 5 in the geographic areas where inland and coastal zones, as defined in the National Oil and Hazardous Substances Contingency Plan (NCP) and Regional Contingency Plans, are adjacent. This Agreement outlines general terms for provision of personnel, information and technical assistance to area committees and appropriate sub-committees located within the geographic boundaries of EPA Region 5.
4. **SCOPE.** This Agreement pertains to the five coastal area contingency plans within the geographic boundaries of EPA Region 5 that are currently maintained by the USCG for the coastal zone, the Region 5 Regional Contingency Plan/Area Contingency Plan (Region 5 RCP/ACP) and the inland zone sub-area plans adjacent to the coastal zones within Region 5. The affected plans will continue to be known as the coastal area contingency plans, the Region 5 RCP/ACP and inland sub-area contingency plans.
5. **BACKGROUND.** The jurisdictional boundary between the coastal and inland zones may intersect a political jurisdiction such as a city or county. A portion of a city or county may lie in the inland zone and be covered by the Region 5 RCP/ACP and inland/or inland sub-area contingency plan maintained by EPA Region 5, while another portion of that city or county may lie in the coastal zone and be covered by a coastal area contingency plan maintained by the USCG. A city or county in such a location may participate in area and sub-area committees sponsored by USCG and EPA Region 5, respectively. This Agreement describes the means of coordination between area committee participants in the coastal and inland zones.

6. RESPONSIBILITIES.

U. S. Coast Guard

- a. USCG intends to provide a Federal On-Scene Coordinator (FOSC) or other representative to assist each area committee in the coastal zone within the jurisdictional boundaries of EPA Region 5 to maintain its area contingency plan and to ensure the plan covers USCG responsibilities within any city or county covered by the area contingency plan and to participate in sub-committees as necessary.
- b. USCG intends to manage the development of the Environmental Response Management Application (ERMA) portal supplied by the National Oceanic and Atmospheric Administration (NOAA) for the coastal zone covered by this Agreement and ensure ERMA data layers are compatible with the mapping technologies used by EPA Region 5.

U. S. Environmental Protection Agency

- a. EPA Region 5 intends to provide a FOSC or other representative to assist each sub-area committee to prepare and maintain a sub-area contingency plan in the inland zone, to provide information to ensure the plan covers EPA Region 5's responsibilities in the sub-area contingency plan and to participate in sub-committees as necessary.
- b. EPA Region 5 intends to manage the development of digital mapping projects of the inland zone covered by this Agreement and ensure that data layers are compatible with mapping technologies used by the USCG.

Both Parties

- a. USCG and EPA Region 5 will retain all responsibilities assigned to them under any statute or regulation, including the NCP.
- b. For each coastal area contingency plan, USCG and EPA Region 5, in consultation with respective area and sub-area committees:
 - (1) Intend to hold meetings of adjacent coastal and inland zone committees jointly. Each zone's committee will be chaired by the respective FOSC/OSC pre-designated for that zone by the NCP. Respective state OSCs will normally serve as vice chair of coastal zone committees. Respective state OSCs will serve as co-chairs for inland zone committees.
 - (2) May establish an executive steering committee to manage and oversee the execution of adjacent coastal area and inland sub-area committees. The executive steering committee may be co-chaired by the respective EPA FOSC and USCG FOSC who will ensure coordination between the two adjacent zone committees.

- (3) Define the jurisdictional boundaries of the area and sub-area contingency plans.
- (4) Identify the roles of each FOSC during a response in the coastal and inland zones including Incident Command System responsibilities and the procedures for the transfer of FOSC responsibilities during a response according to the jurisdictions delineated in the Region 5 RCP/ACP. Recommendations for amending the jurisdictional boundaries will be submitted by FOSCs to the Regional Response Team 5 for consideration and approval. All FOSC roles and responsibilities shall be consistent with the NCP, including those applicable to multi-regional responses described in 40 C.F.R. § 300.140.
- (5) Intend to perform a risk assessment to determine the worst case discharge, maximum most probable discharge and average most probable discharge for the entire geographic area covered by each area contingency plan under this Agreement.
- (6) Intend to coordinate efforts to conduct Government-Initiated Unannounced Exercises (GIUE) and continue to conduct cooperative exercises wherever practical.
- (7) Intend to work cooperatively in planning National Preparedness for Response Exercise Program (PREP) exercises and continue efforts to involve all potential stakeholders, facility response plan holders and oil spill removal organizations.

7. POINTS OF CONTACT.

U. S. Coast Guard

Commander (drm)
Ninth Coast Guard District
1240 E. Ninth Street
Cleveland, Ohio 44199-2060

Mr. Jerome Popiel (jerome.a.popiel@uscg.mil)
(216) 902-6112
(216) 902-6120 (fax)

U. S. EPA

U. S. Environmental Protection Agency
Region 5
77 West Jackson, SE-5J
Chicago, Illinois 60604

Mr. Jason El-Zein (el-zein.jason@epa.gov)
(734) 692-7661
(734) 692-7677 (fax)

8. OTHER PROVISIONS.

- a. Nothing in the agreement is intended to conflict with current laws or regulations, or with the directives of the USCG, the Department of Homeland Security, or EPA Region 5, nor any such laws, regulations, or directives that may be promulgated hereafter. If a term of this Agreement is inconsistent with such authority, then that term shall be invalid, but the remaining terms and conditions of this agreement shall remain in full force and effect.
- b. This MOU does not create any right or benefit, substantive or procedural, enforceable by law or equity, by persons who are not party to this agreement, against USCG or EPA, their officers or employees, or any other person. This MOU does not apply to any person outside of USCG and EPA.
- c. As required by the Anti-deficiency Act, 31 U.S.C. §§ 1341 and 1342, all commitments made the EPA and USCG in this MOU are subject to the availability of appropriated funds and budget priorities. Nothing in this MOU, in and of itself, obligates either party to expend appropriations or enter into any contract, assistance agreement, interagency agreement or incur other financial obligations. Any transaction involving transfers of funds between the parties to this MOU will be handled in accordance with applicable laws, regulations, and procedures under separate written agreements. This MOU will be incorporated by reference or included as an enclosure to any reimbursable agreement between the USCG and EPA resulting from this MOU.
- d. This MOU is a voluntary agreement that expresses the good-faith intentions of the parties, is not intended to be legally binding, does not create any contractual obligations, and is not enforceable by any party.

9. EFFECTIVE DATE. The terms of this agreement will become effective upon signature by both parties.

10. REPORTING AND DOCUMENTATION. The Parties, through their designated POCs, will communicate at least annually to discuss the current status of this Agreement and whether any modification is needed or appropriate. A report of this communication will be maintained by each of the parties.

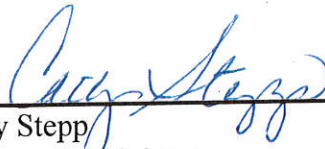
11. MODIFICATION. This agreement may be modified upon the mutual written consent of the parties.

12. TERMINATION. The terms of this agreement, as modified with the consent of both parties, will remain in effect until terminated by 180 days written notice by one party to the other.

APPROVED BY:



J. M. Nunan
Rear Admiral, U. S. Coast Guard
Commander, Ninth Coast Guard District



Cathy Stepp
Regional Administrator
U. S. Environmental Protection Agency
Region 5

Date: July 25, 2018

Date: 5-1-18

APPENDIX XIII: SUBAREA PLANS

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Chicago Planning Area

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- [Coast Guard Sector Lake Michigan Area Contingency Plan](#)
- [Will County Initial Incident Action Plan](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)

Cincinnati Planning Area

- [Ohio River - Cincinnati Sub-Area Spill Response Plan](#)
- [Ohio River Valley Umbrella Plan](#)
- [Region 4 Regional Area Contingency Plan \(RACP\)](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)

Cleveland/East Lake Erie Planning Area

- [Sector Lake Michigan Area Contingency Plan](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)

Detroit/SE Michigan Planning Area

- [Northwest Ohio & Southeast Michigan Area Contingency Plan](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)
- [Joint Contingency Plans between the U.S. and Canada](#)

Great Black Swamp Inland Planning Area

- [Northwest Ohio & Southeast Michigan Area Contingency Plan](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)

Great Lakes Planning Area

- [Coast Guard Sector Lake Michigan Area Contingency Plan](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)

Great Rivers Planning Area

- [Great Rivers Sub-Area Contingency Plan](#)
- [Paducah/Metropolis IAP \(DRAFT\)](#)
- [Upper Mississippi River Spill Response Plan & Resource Manual](#)
- [Ohio River Valley Umbrella Plan](#)
- [Region 4 Regional Area Contingency Plan \(RACP\)](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)
- [Region 6 Regional Contingency Plan](#)
- [Region 7 Regional Integrated Contingency Plan](#)

Green Bay / Horicon Marsh Planning Area

- [Coast Guard Sector Lake Michigan Area Contingency Plan](#)
- [Horicon Marsh IAP May 2015](#)
- [Horicon Marsh GRP Response Strategies](#)
- [Horicon Marsh GRP Tables](#)
- [Horicon Marsh Response Strategies Download](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)

Milwaukee Planning Area

- [Sector Lake Michigan Area Contingency Plan; Southeast Wisconsin Sub-Area Plan](#)
- [Coast Guard Sector Lake Michigan Area Contingency Plan](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)

Minneapolis / St Paul Planning Area

- [Inland Zone Sub-Area Contingency Plan \(SACP\) for Minneapolis/St. Paul](#)
- [Minneapolis/St. Paul Inland Zone Sub-Area Incident Action Plan](#)
- [Upper Mississippi River Spill Response Plan & Resource Manual](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)

North Lower W. Michigan Planning Area

- [Western Michigan Sub-Area Plan](#)
- [Coast Guard Sector Lake Michigan Area Contingency Plan](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)

North Michigan Planning Area

- [Northern Michigan Sub-Area Plan](#)
- [Coast Guard Sector Lake Michigan Area Contingency Plan](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)

NW Indiana Planning Area

- [Coast Guard Sector Lake Michigan Area Contingency Plan](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)

Ohio River Umbrella Plan Planning Area

- [Ohio River Response Map](#)
- [Ohio River Valley Umbrella Plan](#)
- [Region 3 RCP](#)
- [Region 4 Regional Area Contingency Plan \(RACP\)](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)

Patoka Planning Area

- [Patoka River National Wildlife Refuge Story Map](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)

Quad Cities Planning Area

- [Quad Cities Sub-Area Contingency Plan](#)
- [Quad Cities Response Strategies](#)
- [Upper Mississippi River Spill Response Plan & Resource Manual](#)

- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)
- [Region 7 Regional Integrated Contingency Plan](#)

Red River Planning Area

- [Red River Valley Sub-Area Support Document](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)
- [Region 8 RCP](#)

St. Croix National Scenic Riverway Planning Area

- [NPS St. Croix National Scenic Riverway IAP \(2020\)](#)
- [St. Croix National Scenic Riverway IAP](#)
- [Minneapolis/St. Paul Sub-Area ICP/ACP, St. Croix National Scenic Riverway Annex](#)
- [Response Strategy Tables](#)
- [GRP Download](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)

Greater St. Louis Planning Area

- [Greater St. Louis Sub-Area Contingency Plan](#)
- [St. Louis Geographic Response Plan and Response Strategies](#)
- [Upper Mississippi River Spill Response Plan & Resource Manual](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)
- [Region 7 Regional Integrated Contingency Plan](#)

Siouxland Planning Area

- [Siouxland Sub-Area Contingency Plan](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)
- [Region 7 Regional Integrated Contingency Plan](#)
- [Region 8 RCP](#)

South Lower W. Michigan Planning Area

- [Western Michigan Sub-Area Plan](#)
- [Coast Guard Sector Lake Michigan Area Contingency Plan](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)

SE Ohio/Huntington River Planning Area

- [Huntington/Ohio River Sub-Area Contingency Plan \(DRAFT\)](#)
- [Ohio River Valley Umbrella Plan](#)
- [Region 3 RCP](#)
- [Region 4 Regional Area Contingency Plan \(RACP\)](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)

SE Ohio/Upper Ohio River Planning Area

- [SE Ohio Sub-Area Spill Response Place](#)
- [Ohio River Valley Umbrella Plan](#)
- [Region 3 RCP](#)
- [Region 4 Regional Area Contingency Plan \(RACP\)](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)

Upper Mississippi River Planning Area

- [Upper Mississippi River Spill Response Plan & Resource Manual](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)
- [Region 7 Regional Integrated Contingency Plan](#)

Upper Mississippi River (Pools) Planning Area

- | | |
|--|--|
| Pools 5, 5a, and 6 | • Geographic Response Plan (GRP) |
| • Overview | • Download |
| • Incident Action Plan (IAP) | • GRP Tables |

Pool 7

- [Overview](#)
- [IAP](#)
- [GRP Download](#)
- [GRP Tables](#)

Pool 8

- [Overview](#)
- [Initial IAP](#)
- [GRP Download](#)
- [GRP Tables](#)

Pool 9

- [Overview](#)
- [Initial IAP](#)
- [GRP Download](#)
- [GRP Tables](#)

Pool 10

- [Overview](#)
- [Initial IAP](#)
- [GRP Download](#)

Additional Area Plans

- [Horicon Marsh Response Strategies Download](#)
- [Upper Mississippi River Spill Response Plan & Resource Manual](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)
- [Region 7 Regional Integrated Contingency Plan](#)

Pools 11 and 12

- [Overview](#)
- [Initial IAP](#)
- [GRP Download](#)
- [GRP Tables](#)

Pool 13

- [Overview](#)
- [Initial IAP](#)
- [GRP Download](#)
- [GRP Tables](#)

Pools 14 - 16

- [Response Strategies, Quad Cities](#)

Pool 19

- [Overview](#)
- [IAP](#)
- [GRP Download](#)

St. Louis

- [Overview](#)
- [St. Louis Response Strategies Download](#)

Western Lake Superior Planning Area

- [MSU Duluth/Western Lake Superior Area Contingency Plan \(ACP\)](#)

A link to the MSU Duluth/Western Lake Superior Area Contingency Plan (ACP) above can be found in the Safety and Security section as 'Western Lake Superior Area Contingency Plan (ACP).'

- [Strategic Protection Plan Response Considerations: Isle Royale National Park](#)
- [Isle Royale Protection Strategies](#)
- [Sector Lake Michigan Area Contingency Plan](#)
- [Region 5 Regional Contingency Plan / Area Contingency Plan](#)

White River Planning Area

[Region 5 Regional Contingency Plan / Area Contingency Plan](#)