

US EPA ARCHIVE DOCUMENT

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Appendix E-1. Number of Fish Consumption Advisories

Jurisdiction	Comment
Alabama	coastal advisory extends statewide
Alaska	
American Samoa	
Arizona	
Arkansas	
California	
Colorado	
Connecticut	coastal advisory extends statewide
Delaware	
District of Columbia	
Florida	coastal advisory extends statewide
Georgia	coastal advisory extends statewide
Hawaii	
Idaho	
Illinois	
Indiana	
Iowa	
Kansas	
Kentucky	
Louisiana	coastal advisory extends statewide
Maine	coastal advisory extends statewide
Maryland	
Massachusetts	
Michigan*	
Minnesota*	
Mississippi	coastal advisory extends statewide
Missouri	
Montana	
Nebraska	
Nevada	
New Hampshire	coastal advisory extends statewide
New Jersey	coastal advisory extends statewide
New Mexico	
New York	coastal advisory extends statewide
North Carolina	coastal advisory extends statewide
North Dakota	
Ohio	
Oklahoma	
Oregon	
Pennsylvania	
Rhode Island	coastal advisory extends statewide
South Carolina	coastal advisory extends statewide
South Dakota	
Tennessee	
Texas	coastal advisory extends statewide
Utah	

Appendix E-1. Number of Fish Consumption Advisories

Jurisdiction	Rivers	Lakes, Reservoirs, Ponds	Great Lakes	Estuaries	Bayous	Coastal	Canal	Wetland	Multi-class Waters	Regional	Statewide	Total Advisories
Vermont	1		9								1	11
Virginia	10											10
Washington	1	1			8		2					12
West Virginia	10											10
Wisconsin*	101	364	4								1	470
Totals	837	1,831	31	44	9	37	7	2	19		17	2,838

Data from the National Listing of Fish and Wildlife Advisories.
 * Includes Tribal and joint State/Tribal advisories

Appendix E-1. Number of Fish Consumption Advisories

Jurisdiction	Comment
Vermont	
Virginia	
Washington	
West Virginia	
Wisconsin*	
Totals	

Data from the National Listi
 * Includes Tribal and joint Si

Appendix E-2. Number of Fish Advisories Caused by Individual Pollutants (from the National Listing of Fish and Wildlife Advisories)

Jurisdiction	Mercury	PCBs (Total)	Chlordane	Dioxins	Other Pesticides	DDT, DDE, DDD	Selenium	Comment
Alabama	7	5	2				2	
Alaska								
American Samoa	1	1					1	
Arizona	2		3				3	
Arkansas	20	1		1				
California	13	13	1			13	3	
Colorado	8		3				1	
Connecticut	6	6	2					
Delaware	5	20		10		3		
District of Columbia		1						
Florida	97			1				
Georgia	94	21	1			1		
Hawaii		1						
Idaho	1							
Illinois	2	22	9					
Indiana	148	138						
Iowa		1	1					
Kansas			11					
Kentucky	2	8	1					
Louisiana	24	4		2				
Maine	2	13		9		3		
Maryland		1	3					
Massachusetts	89	21	4	1		3		
Michigan*	74	109	15	12		3		
Minnesota*	937	84						
Mississippi	10	4				2		
Missouri	2	3	3					
Montana	25	5						
Nebraska	17	20						
Nevada	2							
New Hampshire	7	1		1				
New Jersey	30	13	6	9				
New Mexico	26							
New York	23	48	14	8		4		
North Carolina	12			4			1	
North Dakota	21							
Ohio	34	43	2					
Oklahoma						1		
Oregon	12	2		1		1		
Pennsylvania	2	28	6					
Puerto Rico								
Rhode Island	2	2		1				
South Carolina	57	2						
South Dakota	1							
Tennessee	2	11	6	1				
Texas	9	7	6	1		6	3	
Utah							2	
Vermont	9	2						
Virginia	3	6						
Virgin Islands								
Washington	1	3		3		3		
West Virginia		3	1	8				
Wisconsin*	423	56		2				
Wyoming								
Total	2,262	729	100	75	0	49	10	

Data from the National Listing of Fish and Wildlife Advisories.

* Includes Tribal and joint State/Tribal advisories

Appendix E-3. Shellfish Harvesting Restrictions due to Pathogens Reported by States, Territories, and Commissions

Jurisdiction	Number of Waterbodies with Restriction	Approved (sq. miles)	Conditionally Approved ^a (sq. miles)	Restricted ^b (sq. miles)	Prohibited ^c (sq. miles)	Management Closures ^d (sq. miles)	Total Area Affected ^e (sq. miles)
Alabama							
Alaska							
American Samoa							
California							
Connecticut							
Delaware							
District of Columbia							
Florida							
Georgia							
Guam							
Hawaii							
Louisiana	26						
Maine	36	1,672	58	108	0	201.1	1,838
Maryland		2,254		41	224		2,720
Massachusetts							
Mississippi							
N. Mariana Islands							
New Hampshire	11	7	1	2	11	0.81	21
New Jersey		808		115	130		1,053
New York		1,563			313		1,875
North Carolina							
Oregon	8	16	17				32
Puerto Rico							
Rhode Island	19	96	22		10		128
South Carolina		613	8	151	119		891
Texas						346.1	346
Virgin Islands							
Virginia				3	148		151
Washington		342	47		104		492
Total	100	7,371	151	420	1,059	548	9,549

^a Conditionally approved waters do not always meet criteria for harvesting shellfish, but may be harvested when conditions are favorable.

^b Restricted water may be harvested if the shellfish are purified with clean water following harvest.

^c Shellfish may not be harvested in prohibited waters.

^d Preventative closures due to a lack of data or proximity to point sources or marinas.

^e Includes waters that are classified as conditionally approved, restricted, prohibited, and management closures.

Appendix E-3. Shellfish Harvesting Restrictions due to Pathogens Reported by States, Territories, and Commissions

Jurisdiction	Comment
Alabama	Data reported for closures and reopenings (page V-9)
Alaska	No data.
American Samoa	
California	No data.
Connecticut	page 20: "In 2000, approximately 257 square miles of assessed waters did not meet direct harvest or relay conditions appropriate for use designations." The number of restrictions w
Delaware	No data.
District of Columbia	No data.
Florida	
Georgia	
Guam	
Hawaii	No data.
Louisiana	
Maine	Maine reports shellfish openings and closures but does not report the size of the area.
Maryland	Acres were converted to square miles. Maryland routinely monitors sanitary quality of shellfish and tidal waters including sampling and sanitary surveys (page 103). Fecal coliform b
Massachusetts	Data from separate assessment in Table 5.4 (acres converted to square miles). Various category classified as restricted.
Mississippi	No data. State reports shellfish growing areas in a map format.
N. Mariana Islands	
New Hampshire	The 54 miles of open ocean water under NH jurisdiction also are closed for shellfishing because a sanitary survey has not been recently conducted in accordance with NSSP guidelin
New Jersey	These values include both estuary/bay and ocean waters. Special restricted area include partially supporting waters.
New York	Converted acres to square miles (see page 118).
North Carolina	No advisories listed
Oregon	Conditionally approved areas are listed as having some areas that are restricted. 35.44 square miles are listed as "Conditionally Approved, Restricted, and Prohibited." Page 121
Puerto Rico	No data.
Rhode Island	These data were provided by the State under separate cover.
South Carolina	Values reported in acres converted to square miles.
Texas	State references maps depicting restricted area but does not provide summary data.
Virgin Islands	No data.
Virginia	Shellfishing is also prohibited in Elizabeth and Layayette Rivers and Little Creek (page 2.5-4).
Washington	
Total	

- ° Conditionally approved water
- ° Restricted water may be harvested
- ° Shellfish may not be harvested
- ° Preventative closures due to pathogens
- ° Includes waters that are closed

Appendix E-3. Shellfish Harvesting Restrictions due to Pathogens Reported by States, Territories, and Commissions

Jurisdiction	
Alabama	
Alaska	
American Samoa	
California	
Connecticut	
Delaware	
District of Columbia	
Florida	
Georgia	
Guam	
Hawaii	
Louisiana	
Maine	
Maryland	Indicator for pathogenic organisms.
Massachusetts	
Mississippi	
N. Mariana Islands	
New Hampshire	
New Jersey	
New York	
North Carolina	
Oregon	
Puerto Rico	
Rhode Island	
South Carolina	
Texas	
Virgin Islands	
Virginia	
Washington	
Total	

“ Conditionally approved water
“ Restricted water may be harvested
“ Shellfish may not be harvested
“ Preventative closures due to pathogens
“ Includes waters that are classified

Appendix E-4. Sources Associated with Shellfish Harvesting Restrictions due to Pathogens

Jurisdiction	Urban Runoff/Storm Sewers		Municipal Discharges		NPS (General)		Point Sources (General)		Industrial Discharges	
	Number of Restrictions	Sq. Miles	Restrictions	Sq. Miles	Restrictions	Sq. Miles	Restrictions	Sq. Miles	Restrictions	Sq. Miles
Alabama										
Alaska										
American Samoa										
California										
Connecticut										
Delaware										
District of Columbia										
Florida										
Georgia										
Guam										
Hawaii										
Louisiana										
Maine										
Maryland	2.0	6.4	16.0	48.7	32.0	87.2			4.0	9.6
Massachusetts										
Mississippi										
N. Mariana Islands										
New Hampshire					11.0	14.1				
New Jersey										
New Mexico										
New York										
North Carolina										
Oregon	1.0		6.0						6.0	
Puerto Rico										
Rhode Island										
South Carolina										
Texas										
Virgin Islands										
Virginia										
Washington										
Total	3.0	6.4	22.0	48.7	43.0	101.2	0.0	0.0	10.0	9.6

Appendix E-4. Sources Associated with Shellfish Harvesting Restrictions due to Pathogens

Jurisdiction	CSOs		Septic Tanks		Marinas	
	Number of Restrictions	Sq. Miles	Restrictions	Sq. Miles	Restrictions	Sq. Miles
Alabama						
Alaska						
American Samoa						
California						
Connecticut						
Delaware						
District of Columbia						
Florida						
Georgia						
Guam						
Hawaii						
Louisiana						
Maine						
Maryland	1.0	8.4	2.0	6.4	8.0	27.1
Massachusetts						
Mississippi						
N. Mariana Islands						
New Hampshire						
New Jersey						
New Mexico						
New York						
North Carolina						
Oregon			6.0		6.0	
Puerto Rico						
Rhode Island						
South Carolina						
Texas						
Virgin Islands						
Virginia						
Washington						
Total	1.0	8.4	8.0	6.4	14.0	27.1

Appendix E-4. Sources Associated with Shellfish Harvesting Restrictions due to Pathogens

	Comment
Jurisdiction	
Alabama	No data.
Alaska	No data.
American Samoa	
California	No data.
Connecticut	While marinas, stormwater runoff, and waterfowl were cited as causes, no specifics were listed on page 20.
Delaware	No data.
District of Columbia	No data.
Florida	
Georgia	
Guam	
Hawaii	No data.
Louisiana	No data.
Maine	Maine reports industrial and municipal dischargers as the major sources associated with impairment of estuarine waters.
Maryland	Multiple causes are reported for the restrictions on 36 waterbodies. State also reports poor flushing as a partial cause for 10 restrictions affecting 29.11 square miles.
Massachusetts	No data.
Mississippi	No data. State reports NPS, urban runoff, and unsewered communities as causes of restrictions.
N. Mariana Islands	
New Hampshire	The 14.06 square miles include 0.61 square miles that classified "conditionally approved" which are open during dry weather but closed after certain rain events.
New Jersey	State reports sources in detailed survey in Table A.7.2.3-1 (draft version). State needs to tabulate final version in report format.
New Mexico	No data.
New York	No data.
North Carolina	No restrictions listed
Oregon	multiple causes are listed for each restriction. They include agriculture, wildlife, municipal, marina, septic, and industrial. P. 121.
Puerto Rico	No data.
Rhode Island	No data.
South Carolina	No data.
Texas	No data.
Virgin Islands	No data.
Virginia	State provides qualitative description of sources, including point source discharges and elevated fecal coliform bacteria levels (page 2.5-4).
Washington	State cites general sources of bacteria including stormwater, sewage treatment plants, and septic tanks.
Total	

Appendix E-6. Contact Recreation Restrictions Reported by States, Tribes, Territories, and Commissions

Jurisdiction	Contact Recreation Restrictions	Number of Sites Affected	Reasons for Restriction	Comment
Alabama	35	20	Fecal coliform	
Alaska				No data.
American Samoa				State reports closures rather than restrictions
Arizona		5	Bacteria and sediment	No data.
Arkansas				
Big Sandy Rancheria				
California	91		Sewer lines, urban runoff, wildlife, rain, unknown.	State has no contact recreations restrictions on rivers at this time.
Colorado				No data on lakes.
Connecticut	175	73	included heavy rain, debris in water, elevated levels of bacteria (most common cause), gasoline spill, floating	Beach closures for 1998 and 1999.
Delaware				No data.
District of Columbia				No data.
Florida				
Georgia	1	1	Fecal coliform	Uncertain from text if outdated
Guam				
Hawaii				No data.
Hoop Valley Tribe				No data.
Idaho	4	4	Algae bloom, fecal coliform (from cattle and sewage spill), pathogens, swimmers itch.	
Illinois				No data.
Indiana				No data.

Appendix E-6. Contact Recreation Restrictions Reported by States, Tribes, Territories, and Commissions

Jurisdiction	Contact Recreation Restrictions	Number of Sites Affected	Reasons for Restriction	Comment
Iowa				No data.
Kansas				No data.
Kentucky				
La Posta Band				No data.
Louisiana	7		Organic contamination, sediment contamination, fecal coliform.	
Maine	1	1	CSO	State also reports 2 warnings posted for 1 site and 4 for another.
Maryland	12	12	Bacteria from nonpoint source runoff (including agriculture), septic discharge, sewer overflow, marinas, wildlife, and undetermined sources.	Entered restrictions for 1998-1999 only. Bathing advisories from local health departments are not identified as restrictions or closures.
Massachusetts				No data. State does not compile monitoring data on beach closures. No quantitative data. Several beaches on two Great Lakes periodically closed due to elevated bacteria counts in 1998 and 1999 (page 8).
Michigan				
Minnesota				No data.
Mississippi	0	0	State reports one lake closed voluntarily due to cluster of shigellois cases.	State reports data from 1992-1997 period.
Missouri				No data.
Montana				No data.
N. Mariana Islands				

Appendix E-6. Contact Recreation Restrictions Reported by States, Tribes, Territories, and Commissions

Jurisdiction	Contact Recreation Restrictions	Number of Sites Affected	Reasons for Restriction	Comment
Nebraska				No data.
Nevada				No data.
New Hampshire	17	13	Bacteria from heavy swim loads or stormwater runoff.	8 beaches in 1998 and 9 in 1999 were posted. 3 beaches were closed temporarily in 1998 and 4 in 1999.
New Jersey	35		Fecal coliform exceedances and suspected pollution events	14 closures of ocean beaches and 21 closures of bay beaches in 1999 (page 1); 39 (3 ocean beaches and 36 bay beaches) in 1998 (appendix A-5.2.2).
New Mexico				No data on restrictions. State reports 0 closures and 20 cases of giardiasis due to infected surface waters.
New York				No data.
North Carolina				No data.
North Dakota	0			
Ohio	5	5	Bacterial contamination	No data on number of restrictions and sites although report includes the number of months certain cites experienced fecal coliform and e-coli violations during the contact recreation season.
Ohio River Valley				
Oklahoma				
Oregon	0	0		
Pennsylvania				No data.
Puerto Rico				No data.

Appendix E-6. Contact Recreation Restrictions Reported by States, Tribes, Territories, and Commissions

Jurisdiction	Contact Recreation Restrictions	Number of Sites Affected	Reasons for Restriction	Comment
Rhode Island	24	14	Most closures in 1998 and 1999 due to fecal coliform bacterial levels (Tables 3H-8 and 3H-9).	
South Carolina	29	25	Exceeded acceptable fecal coliform levels.	
South Dakota	84	53	Fecal coliform levels	Data from 1998 and 1999 closures.
Susquehanna River Basin				No data.
Tennessee				
Texas				State reports waterbodies that do not support designated use for contact recreation but does not specify whether restriction were issued.
Utah				No data.
Vermont	18	7	Bacteria from urban runoff, septic systems, and unknown sources.	
Virgin Islands				No data; qualitative description on page 92.
Virginia				No data.
Washington				No data.
West Virginia	0			Restrictions data apply to 11 basins covered by the report.
Wisconsin				No data.
Wyoming				No data.

Appendix E-6. Contact Recreation Restrictions Reported by States, Tribes, Territories, and Commissions

Jurisdiction	Contact Recreation Restrictions	Number of Sites Affected	Reasons for Restriction	Comment
TOTALS	538	233		

Appendix E-10. Sediment Contamination Reported by States, Tribes, Territories, and Commissions

Jurisdiction	Number of Sites Assessed	Number of Sites with Toxics	Number of Sites of Concern	Contaminants Detected	Contaminants of Concern	Sources of Contaminants	Comment
Alabama							No data.
Alaska							No data.
American Samoa							
Arizona							No data.
Arkansas							No data.
Big Sandy Rancheria							
California							No data.
Colorado							State adopted guidance to use for sediment assessments.
Connecticut							No data.
Delaware							No data.
District of Columbia							No data.
Florida							
Georgia							
Guam							
Hawaii							No data.
Hoop Valley Tribe							No data.
Idaho							No data.
Illinois							No data.
Indiana							No data.
Iowa							No data.

Appendix E-10. Sediment Contamination Reported by States, Tribes, Territories, and Commissions

Jurisdiction	Number of Sites Assessed	Number of Sites with Toxics	Number of Sites of Concern	Contaminants Detected	Contaminants of Concern	Sources of Contaminants	Comment
Kansas							No data.
Kentucky							
La Posta Band							No data.
Louisiana		1		PCBs			
Maine		25	25	Lead, copper, PCBs, cadmium, organics, and chlorinated solvents		salvage, plating, landfill, superfund site, recycling, textile mill, pulp mill, and unknown sources for lead.	Sites sampled from 1977 through 1994,
Maryland							No data.
Massachusetts			24		metals and priority organics (PAH, PCB, dioxin)		No data. State does not have numerical criteria No specific data but State reports evaluations or feasibility studies underway for Deer, Torch, White, and Muskegon Lakes (page 16). Monitoring to evaluate PCB removal from Newburgh
Michigan			4				
Minnesota							No data.
Mississippi		16		Priority organics, nonpriority organics, metals, unknown toxicity		Industrial and municipal point sources, urban runoff/storm sewers, marinas, land disposal, hazardous waste.	Data from 1998 report.
Missouri							No data.
Montana							No data.

Appendix E-10. Sediment Contamination Reported by States, Tribes, Territories, and Commissions

Jurisdiction	Number of Sites Assessed	Number of Sites with Toxics	Number of Sites of Concern	Contaminants Detected	Contaminants of Concern	Sources of Contaminants	Comment
N. Mariana Islands							
Nebraska							No data.
Nevada							No data.
New Hampshire							No data. NH does not currently have numeric water quality criteria for sediments.
New Jersey							No data.
New Mexico							No data.
							Contaminated sediment is the primary cause of impairment in about 550 river miles, 151,600 lake acres, 130 square miles of estuaries, and 370 miles of Great Lakes shoreline (page
New York					PCBs, pesticides, and heavy metals		
North Carolina							No data
North Dakota			1		Pesticides	Runoff from abandoned landfill and pesticides formulation plant	

Appendix E-10. Sediment Contamination Reported by States, Tribes, Territories, and Commissions

Jurisdiction	Number of Sites Assessed	Number of Sites with Toxics	Number of Sites of Concern	Contaminants Detected	Contaminants of Concern	Sources of Contaminants	Comment
Ohio					Heavy metal and organic contaminants.		contaminants are a major source of impairment in 36 miles of rivers and streams and a moderate influence in 97 miles. Waterbodies with elevated metals in bottom sediments listed in appendix H.
Ohio River Valley							No data.
Oklahoma							
Oregon		11	11	metals, PCBs, PAHs, petroleum, pesticides, dioxins/furans, tributyl tin,	metals, PCBs, PAHs, petroleum, pesticides, dioxins/furans, tributyl tin,	industrial facilities, railroad, manufactured gas plant, construction site, marinas, shipyards, sawmills	Data presented for 6 rivers, 1 creek, 1 slough, and 3 intertidal/estuary zones
Pennsylvania							No data.
Puerto Rico							No data.
Rhode Island			25		VOCs, chlorinated solvents, hydrocarbons, metals, pesticides, PCBs, and other hazardous materials		These are site remediation projects.
South Carolina							No data.
South Dakota							No data.
Susquehanna River Basin							No data.
Tennessee							

Appendix E-10. Sediment Contamination Reported by States, Tribes, Territories, and Commissions

Jurisdiction	Number of Sites Assessed	Number of Sites with Toxics	Number of Sites of Concern	Contaminants Detected	Contaminants of Concern	Sources of Contaminants	Comment
Texas			36		Metals		State reports 21 streams and rivers, 6 estuaries, 9 reservoirs of concern (pages 11, 12, 15)
Utah							No data.
Vermont	1	1	1	Research continuing.	Research continuing.	Research continuing.	Data supplied by State.
Virgin Islands							No data.
Virginia							No data.
Washington							No data.
West Virginia							No data.
Wisconsin	56				PCBs, PAHs, metals		State also reports status of sediment contamination at 15 additional sites (mainly Superfund) where remediation is pending or an investigation is ongoing.
Wyoming							No data.
Totals	57	54	127				