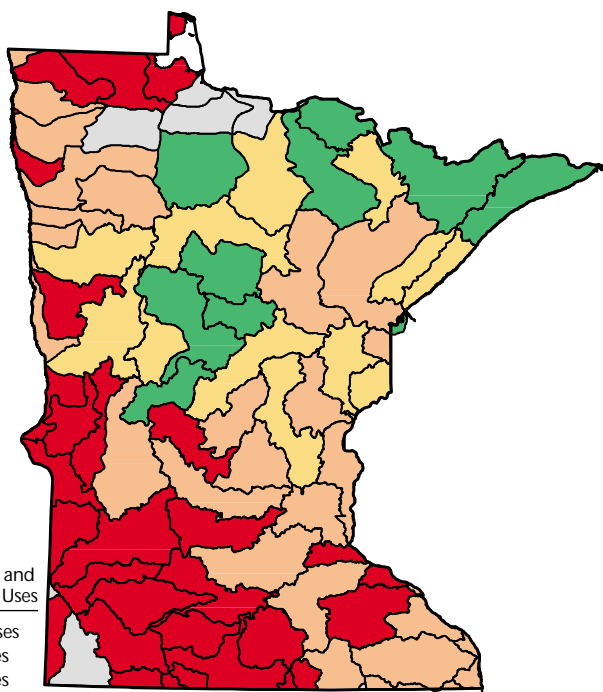


US EPA ARCHIVE DOCUMENT

Minnesota



Percent of Assessed Rivers, Lakes, and Estuaries Meeting All Designated Uses

- 80% - 100% Meeting All Uses
- 50% - 79% Meeting All Uses
- 20% - 49% Meeting All Uses
- 0% - 19% Meeting All Uses
- Insufficient Assessment Coverage
- Basin Boundaries (USGS 8-Digit Hydrologic Unit)

For a copy of the Minnesota 1998 305(b) report, contact:

Elizabeth Brinsmade
Minnesota Pollution Control Agency
Water Quality Division
520 Lafayette Road North
St. Paul, MN 55155
(612) 296-7312
e-mail: elizabeth.brinsmade@pca.state.mn.us

Surface Water Quality

As part of its basin management approach, Minnesota reported on three basins for the state's 1998 305(b) report—the Upper Mississippi, Lower Mississippi, and St. Croix River basins. More than 50% of the state-assessed river miles have good quality that fully supports aquatic life uses, and 26% of the state-assessed rivers and over 67% of the state-assessed lake acres fully support swimming. The most common problems identified in rivers are bacteria, turbidity, nutrients, siltation, and dissolved oxygen. Nonpoint sources generate most of the pollution in rivers. Minnesota's

272 miles of Lake Superior shoreline have fish consumption advisories. These advisories recommend some limits on fish meals consumed for certain species and size classes. Most of the pollution originated from point sources has been controlled, but runoff (especially in agricultural regions) still degrades water quality.

Ground Water Quality

Ground water supplies the drinking water needs of 70% of Minnesota's population. The Minnesota Pollution Control Agency's (MPCA) Ground Water Monitoring and Assessment Program evaluates the quality of ground water. The program published several major reports in 1998, including statewide assessments of 100+ ground water constituents and of nitrates specifically. The program has now shifted emphasis to problem investigation and effectiveness monitoring, at local and small-regional scales.

Programs to Restore Water Quality

Basin Information Documents (BIDs) will include the 305b waterbody assessments as well as information on a wide variety of water resource issues and subjects. The BIDs will also include GIS maps depicting the locations of permitted feedlots in the state system and relative numbers of animal units per feedlot by major watershed. Based on the BIDs, teams will target specific waterbodies and watersheds for protection, restoration, or monitoring. Specific strategies will be spelled out.

Programs to Assess Water Quality

In the 1998 assessments, in addition to monitoring data collected by MPCA, data from the Metropolitan Council, U.S. Geological Survey, Long-Term Resource Monitoring Project, Mississippi Headwaters Board, local Clean Water Partnership projects and Hennepin County were used.

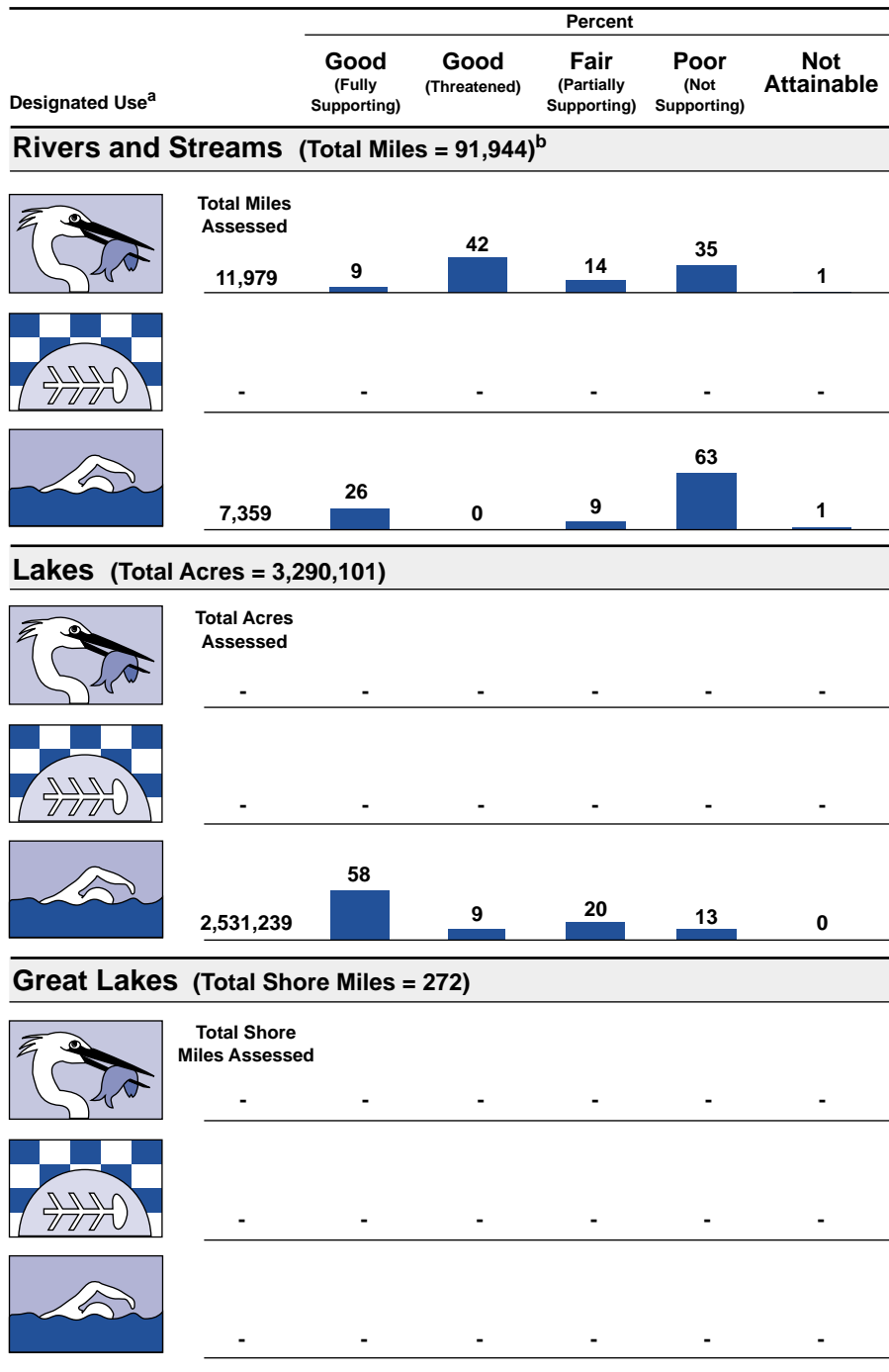
Minnesota maintains an Ambient Stream Monitoring Program with 82 sampling stations, and approximately 40 sites are visited each year. The state also performs fish tissue sampling, sediment monitoring, intensive surveys, and lake assessments and supports a citizen lake monitoring program.

In 1996, Minnesota piloted a statistically based water quality monitoring program in the St. Croix River basin. The program used multiple indicators to evaluate resource quality including fish and macroinvertebrate community structure, habitat, flow and basic water chemistry. Additional sites provided the data to develop regional biocriteria.

The state is developing biological assessment methods and criteria for depressional and riparian wetlands. A pilot effort is underway to develop a citizen wetland assessment program in cooperation with selected local governments.

The MPCA continues to be involved with field investigations into the cause of frog malformities. Partnerships with the National Institute of Environmental Health and the USGS Water Resources Division and Biological Resources Division have been particularly useful in carrying out teratogenic assays, histopathological studies, and water flow patterns at study sites.

Individual Use Support in Minnesota



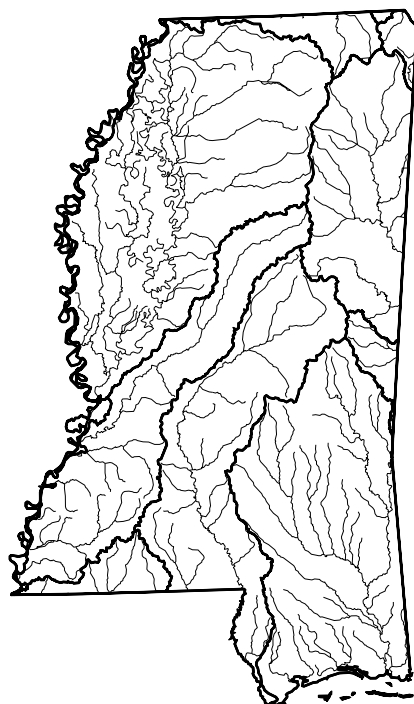
- Not reported in a quantifiable format or unknown.

^a A subset of Minnesota's designated uses appear in this figure. Refer to the state's 305(b) report for a full description of the state's uses.

^b Includes nonperennial streams that dry up and do not flow all year.

Note: Figures may not add to 100% due to rounding.

Mississippi



— Basin Boundaries
(USGS 6-Digit Hydrologic Unit)

For a copy of the Mississippi 1998 305(b) report, contact:

Jeff Thomas
Mississippi Department of
Environmental Quality
P.O. Box 10385
Jackson, MS 39289-0385
(601) 961-5157
e-mail: jeff_thomas@deq.state.ms.us

*Assessed river percentages presented in this summary are based on the state's electronic submittal of 305(b) data. Due to the state's use of evaluated nonpoint source assessment data, which focused on potential problem areas (92% of the total assessed river mileage), the resulting 305(b) data are biased toward these waters. These evaluated waters have no known monitoring data indicating impairment.

Surface Water Quality*

Of the 46% of Mississippi's river miles assessed (3% monitored and 43% evaluated), 94% have fair water quality that partially supports aquatic life uses, and 1% have poor water quality that does not support aquatic life uses. About 97% of the assessed rivers are listed as not fully supporting swimming. The most common pollutants include nutrients, pesticides, suspended solids, and bacteria. Evaluative information suggests that agriculture is the most common source of pollution in rivers, followed by municipal sewage treatment plants.

Of the assessed lake acres, about 98% have good water quality that fully support aquatic life uses, and over 99% fully support swimming. Nutrients, metals, siltation,

pesticides, and oxygen-depleting substances are the most common pollutants, and agriculture is the dominant source of pollution in Mississippi's lakes.

Over 88% of assessed estuaries have good quality that fully supports aquatic life uses. The most common pollutants in estuaries are organic enrichment, turbidity, and bacteria. The state attributes these pollutants to urban runoff/storm sewers, septic systems, and land disposal activities. Of the waters assessed for shellfish harvesting, 61% are listed as restricted or prohibited. Most of the restrictions are mandates by the state's Shellfish Sanitation program. Twenty percent are classified as buffer zones bordering ship channels, and most of the remainder is classified as restricted due to proximity to wastewater outfalls.

The state has posted eight fish consumption advisories and three commercial fishing bans due to elevated concentrations of PCBs, PCP, dioxins, and/or mercury detected in fish tissues.

Mississippi did not report on the condition of wetlands.

Ground Water Quality

Extensive contamination of drinking water aquifers and public water supplies is uncommon in Mississippi although localized ground water contamination has been detected. The most frequently identified sources of contamination are leaky underground storage tanks and faulty septic systems. Brine contamination is also a problem near oil fields. Little data exist for domestic wells. Ground water protection programs include the Pesticide Container Recycling, Underground Storage Tank, Underground Injection Control, Agrichemical Ground Water Monitoring, and Wellhead Protection Programs (approved by EPA in 1993).

Programs to Restore Water Quality

Mississippi developed and adopted (1994, after public review) comprehensive regulations for conducting Section 401 Water Quality Certifications, enabling the state to review federal licenses and permits for compliance with state water quality standards. Mississippi also expanded its definition of waters of the state to include wetlands and ground waters.

Programs to Assess Water Quality

Historically, the state annually sampled about 25 of their 57 historical fixed monitoring stations on a rotating schedule. The state has been able to significantly expand its fixed monitoring network to 143 stations statewide.

The state now monitors physical and chemical parameters monthly, metals in the water column quarterly, and biological parameters once a year. Several stations are also sampled annually for metals and pesticides in fish tissues.

In 1997, the state also adopted its Basinwide Approach to water quality management. This basinwide approach is supported by a rotating basin fixed-station monitoring network that augments the statewide network of ambient monitoring stations.

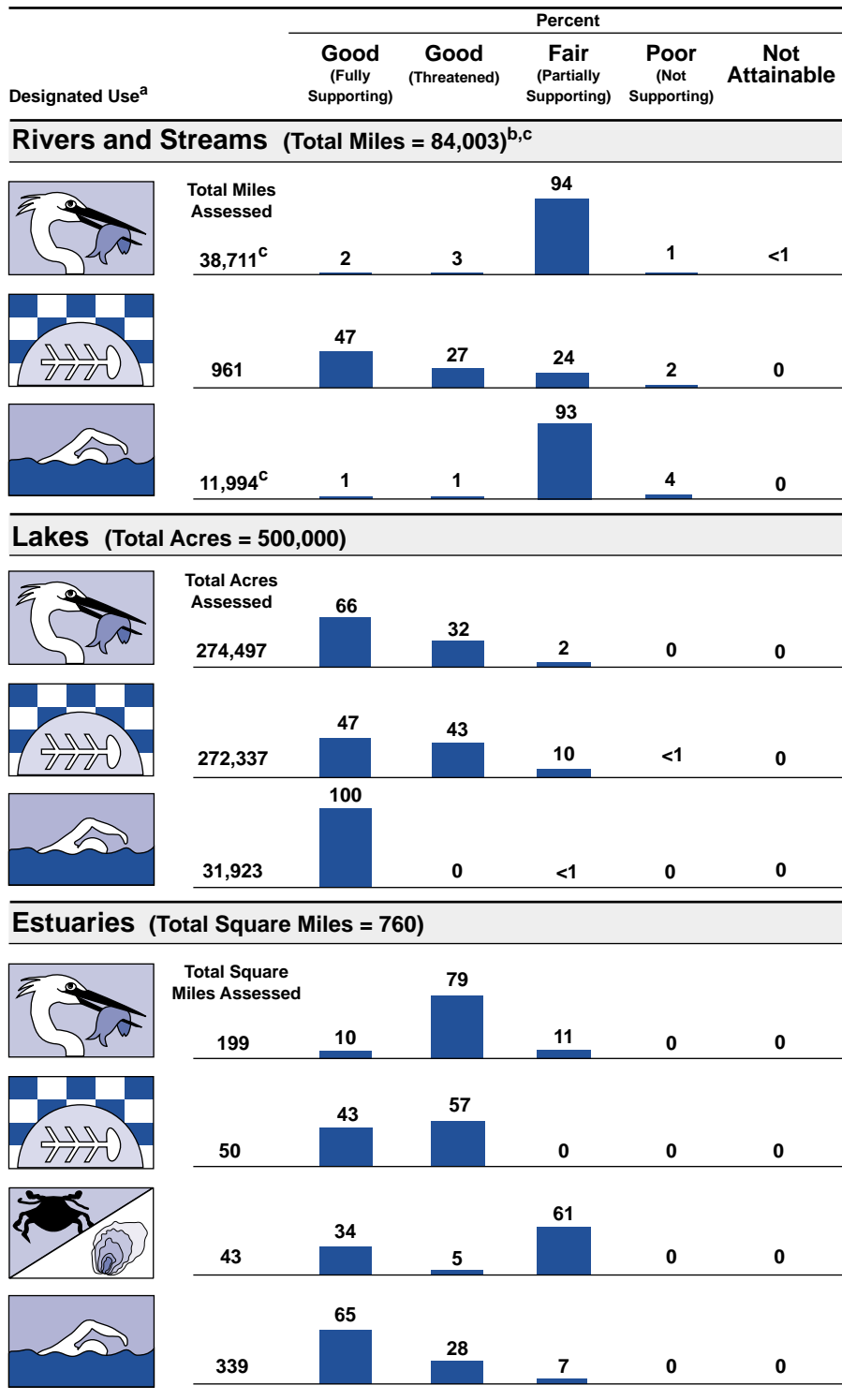
– Not reported in a quantifiable format or unknown.

^a A subset of Mississippi's designated uses appear in this figure. Refer to the state's 305(b) report for a full description of the state's uses.

^b Includes nonperennial streams that dry up and do not flow all year.

^c Mississippi notes its assessments are biased due to the state's extensive use of evaluated nonpoint source assessment data, which focused on problem areas.

Individual Use Support in Mississippi



Note: Figures may not add to 100% due to rounding.

Missouri



- Segment 80% - 100% Fully Supporting
- Segment 50% - 79% Fully Supporting
- Segment 20% - 49% Fully Supporting
- Segment 0% - 19% Fully Supporting
- Basin Boundaries (USGS 6-Digit Hydrologic Unit)

This map depicts aquatic life use support status.

For a copy of the Missouri 1998 305(b) report, contact:

John Ford
Missouri Department of Natural Resources
Water Pollution Control Program
P.O. Box 176
Jefferson City, MO 65102-0176
(573) 751-7024
e-mail: NRRFordJ@mail.dnr.state.mo.us

Surface Water Quality

Almost half of Missouri's rivers and streams have impaired aquatic habitat due to a combination of factors including natural geology, climate, and agricultural land use. As a result of these factors, many streams suffer from low water volume, organic enrichment, and excessive siltation. In lakes, low dissolved oxygen from upstream dam releases, pesticides, and metals are the most common ailments. Agriculture, reservoir releases, contaminated sediments, and urban runoff are the leading sources of lake degradation.

The Missouri Department of Health advises that the public restrict consumption of bottom-feeding fish (such as catfish, carp, and suckers) from urban waters and non-Ozark streams or lakes to 1 pound per week due to concentrations of chlordane, PCBs, and other contaminants in these fish.

Missouri did not report on the condition of wetlands.

Ground Water Quality

In general, ground water quantity and quality increases from north to south and west to east. Deep ground water aquifers in northern and western Missouri are not suitable for drinking water due to high concentrations of minerals from natural sources. Nitrates and, to a much lesser extent, pesticides also contaminate wells in this region. About one-third of the private wells exceed drinking water standards for nitrates, and about 2% of private wells exceed drinking water standards for either atrazine or alachlor. Statewide, the highest priority concerns include ground water contamination from septic tanks, pesticide and fertilizer applications, and underground storage tanks.

Programs to Restore Water Quality

Sewage treatment plant construction has restored many surface waters in Missouri, but point sources still impact about 90 classified stream miles. The Missouri Clean Water Commission has revised its regulations to bring confined animal operations into the point source permit program consistent with

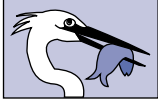





federal requirements. Nonpoint source control efforts have been greatly expanded over the past few years. With a focus on agriculture, approximately \$2 million annually is spent for statewide informational programs, technical assistance and demonstrations on a regional and local basis, and BMP implementation in local watersheds. A dedicated state sales tax provides an additional \$28 million annually for watershed-level soil erosion control programs.

Programs to Assess Water Quality

Missouri's water quality monitoring strategy features approximately 40 fixed-station chemical ambient monitoring sites, short-term intensive chemical monitoring studies, a rapid visual/aquatic invertebrate assessment program and detailed biological sampling in support of development of biocriteria. The state also reviews water quality monitoring data and published studies done by others.

Missouri requires toxicity testing of effluents for all major dischargers; has a fish tissue monitoring program for selected metals, pesticides and PCBs; and monitors river sediments for toxic metals and organics and sediment pore water for toxicity. Several nonpoint source watershed projects related to management of manure or farm chemicals have their own monitoring programs.

Individual Use Support in Missouri

Designated Use ^a	Percent				
	Good (Fully Supporting)	Good (Threatened)	Fair (Partially Supporting)	Poor (Not Supporting)	Not Attainable
Rivers and Streams (Total Miles = 51,978)^b					
	Total Miles Assessed	53		46	
	21,585		-	1	-
		99			
	21,978		0	1	-
		99			
	5,412		0	1	-
Lakes (Total Acres = 292,204)					
	Total Acres Assessed	99			
	292,204		<1	1	-
		100			
	259,615		0	<1	-
		100			
	261,451		0	0	-

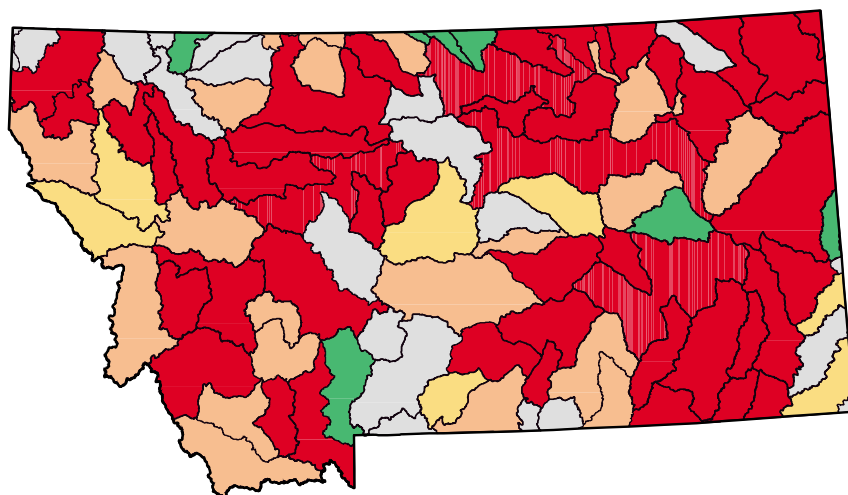
- Not reported in a quantifiable format or unknown.

^a A subset of Missouri's designated uses appear in this figure. Refer to the state's 305(b) report for a full description of the state's uses.

^b Includes nonperennial streams that dry up and do not flow all year.

Note: Figures may not add to 100% due to rounding.

Montana



Percent of Assessed Rivers, Lakes, and Estuaries Meeting All Designated Uses

- 80% - 100% Meeting All Uses
- 50% - 79% Meeting All Uses
- 20% - 49% Meeting All Uses
- 0% - 19% Meeting All Uses
- Insufficient Assessment Coverage
- Basin Boundaries (USGS 8-Digit Hydrologic Unit)

For a copy of the Montana 1998 305(b) report, contact:

Robert L. Barry
Montana Department
of Environmental Quality
Phoenix Building
2209 Phoenix Avenue
Helena, MT 59601
(406) 444-5342
e-mail: rbarry@state.mt.us

Surface Water Quality

Water quality assessments have been done on about 10% of Montana's 177,000 stream miles and 94% of the 845,000 lake acres. These assessments have focused primarily on the largest lakes and the perennial streams where water quality problems were expected, so the results are not representative of overall state water quality. Of the assessed stream mileage, 41% has been found to fully support all uses, 52% is rated as partially supporting intended uses, while 8% does not support one or more uses. Approximately 57% of Montana's assessed

lake acreage fully supports swimming and drinking water uses. Assessed lake acreage either fully supports (14%) or partially supports (86%) aquatic life use, with reservoir water level fluctuations being the primary reason for partial support classification. Nonpoint sources of pollution produce most stream and lake impairment in the state.

Ground Water Quality

More than 50% of Montanans get their domestic water supply from ground water sources. Ground water is plentiful and the quality is generally excellent, but Montana's aquifers are vulnerable to pollution from increased human activity associated with population growth. A new statewide ground water plan to protect ground water quality and quantity has just been completed, and implementation is underway.

Programs to Restore Water Quality

Montana is actively pursuing interagency/interdisciplinary watershed planning and management. The Montana Watershed Coordination Council brings together all water quality stakeholders to promote and coordinate watershed protection efforts. During 1998, state agencies participated with federal environmental agencies in development of unified watershed assessments under the federal Clean Water Action Plan initiative. Since the most prevalent impacts to state waters are from nonpoint sources, management of these sources is key to water quality protection and restoration. The state Nonpoint

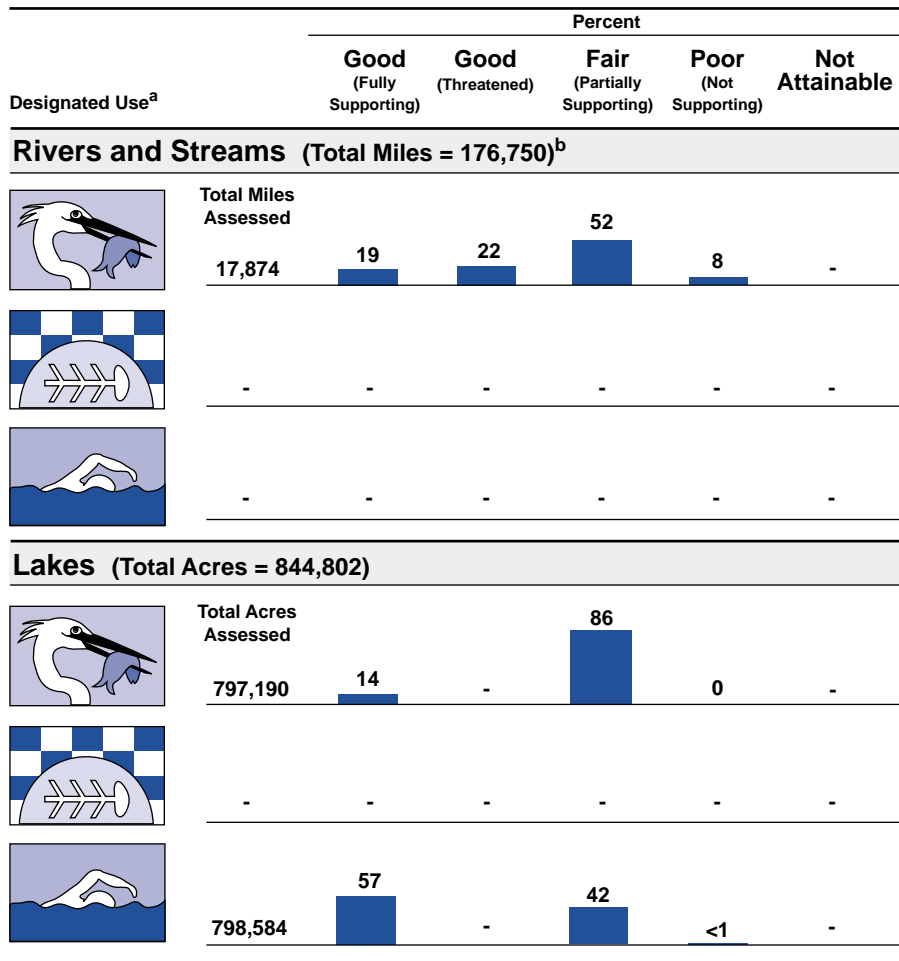
Source Management Plan employs an approach emphasizing education and voluntary action supported by permits for selected activities. It focuses on three major source categories: agriculture, mining, and forestry. TMDL implementation plan development and other watershed planning efforts use a collaborative process to identify and prioritize management options that will address all major factors threatening or degrading water quality.

Programs to Assess Water Quality

In 1997 the Montana Water Quality Act was amended to provide new mandates and increased funding for water quality assessment and planning. The Montana Department of Environmental Quality was directed to complete, by October of 1999, a review of the state list of impaired waterbodies evaluating the adequacy of the data used in list development. Waterbodies lacking sufficient credible data will be targeted for immediate reassessment. The process used to determine which impaired streams or lakes receive priority for the development of TMDL implementation plans is also being revised. Finally, an ambient water quality monitoring program is being implemented. The objectives of this program are to provide an unbiased indicator of current statewide water quality that will also support trend analysis as information accumulates.

Montana is developing biological assessment methods and criteria for wetlands.

Individual Use Support in Montana



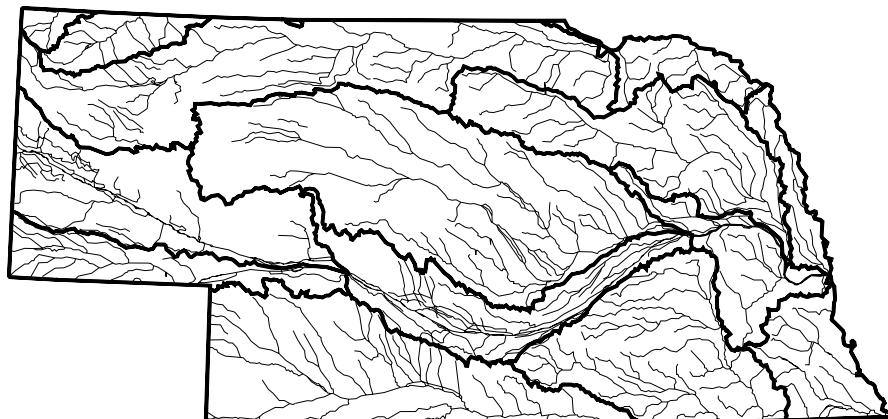
- Not reported in a quantifiable format or unknown.

^a A subset of Montana's designated uses appear in this figure. Refer to the state's 305(b) report for a full description of the state's uses.

^b Includes nonperennial streams that dry up and do not flow all year.

Note: Figures may not add to 100% due to rounding.

Nebraska



— Basin Boundaries
(USGS 6-Digit Hydrologic Unit)

For a copy of the Nebraska 1998 305(b) report, contact:

Michael Callam
Nebraska DEQ
Water Quality Division,
Surface Water Section
Suite 400, The Atrium
1200 N Street
P.O. Box 98922
Lincoln, NE 68509-8922
(402) 471-4249
e-mail: DEQ044@mail.deq.state.
ne.us

Surface Water Quality

Agriculture is the most widespread source of water quality problems in Nebraska, but urban runoff is also a concern. Agricultural runoff introduces excess sedimentation, bacteria, suspended solids, pesticides, and nutrients into surface waters. Municipal and industrial facilities may contribute ammonia, bacteria, and metals. Channelization and hydrologic modifications have

impacted aquatic life in Nebraska streams by reducing the diversity and availability of habitat. Monitoring has revealed that current water quality criteria for the herbicide atrazine is being exceeded

Nutrient enrichment and sedimentation were the most common water quality problems identified in lakes, followed by siltation, suspended solids, and nutrients. Sources of pollution in lakes include agriculture, construction, and urban runoff. Nebraska also has 36 fish consumption advisories in effect. The contaminants of concern include methylmercury, dieldrin, and PCBs.

Ground Water Quality

Although natural ground water quality in Nebraska is good, hundreds of individual cases of ground water contamination have been documented. Major sources of ground water contamination include agricultural activities, industrial facilities, leaking underground storage tanks, oil or hazardous substance spills, solid waste landfills, wastewater lagoons, brine disposal pits, and septic systems.

Programs to Restore Water Quality

Nebraska's Nonpoint Source (NPS) Management Program concentrates on protecting ground and surface water resources by performing watershed assessments and

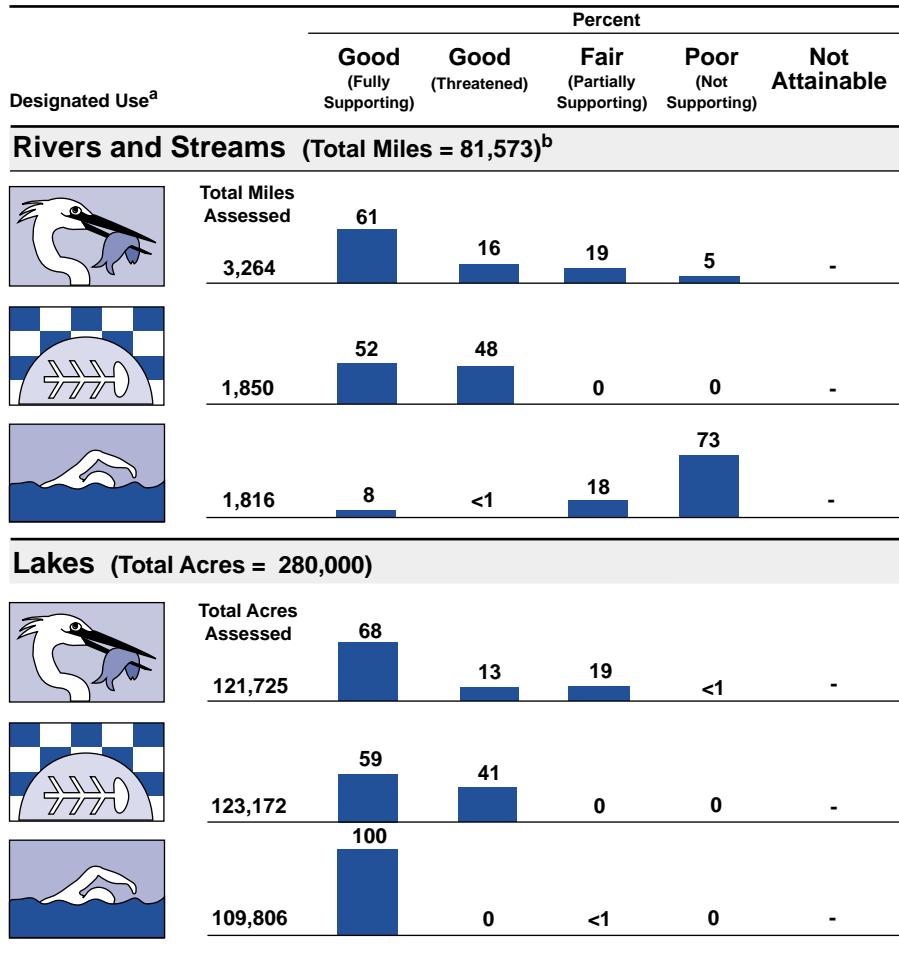
promoting implementation projects. Currently, Nebraska has 34 Section 319 funded NPS-related projects.

Nebraska revised wetland water quality standards to protect beneficial uses of aquatic life, aesthetics, wildlife, and agricultural water supply. The state also protects wetlands with the water quality certification program and water quality monitoring.

Programs to Assess Water Quality

The state's Nonpoint Source Management Program cannot be effective without monitoring information to identify and prioritize waters impacted by NPS, develop NPS control plans, and evaluate the effectiveness of implemented best management practices. In response to this need, Nebraska developed an NPS surface water quality monitoring strategy to guide NPS monitoring projects. During 1996 and 1997, the state conducted three watershed assessments, diagnostic/feasibility studies for three lakes, and ongoing BMP effectiveness studies in 10 watersheds.

Individual Use Support in Nebraska



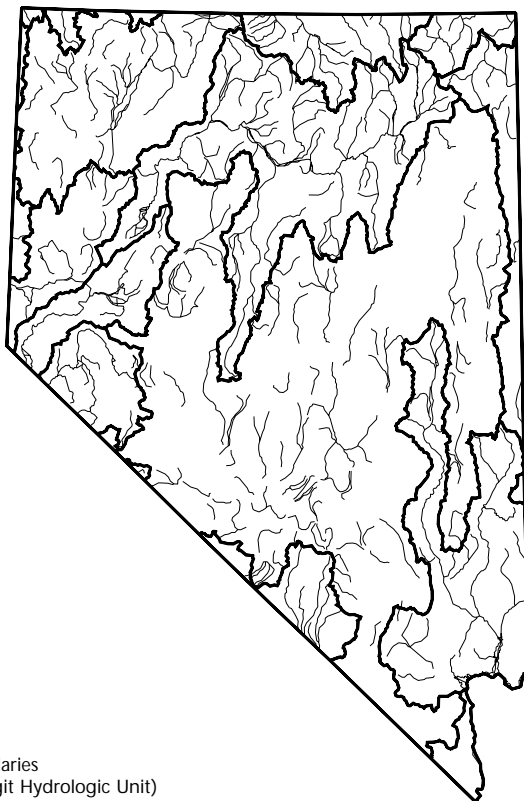
- Not reported in a quantifiable format or unknown.

^a A subset of Nebraska's designated uses appear in this figure. Refer to the state's 305(b) report for a full description of the state's uses.

^b Includes nonperennial streams that dry up and do not flow all year.

Note: Figures may not add to 100% due to rounding.

Nevada



For a copy of the Nevada 1998 305(b) report, contact:

Glen Gentry
 Division of Environmental Protection
 Bureau of Water Quality Planning
 333 West Nye Lane, Suite 138
 Carson City, NV 89706-0851
 (775) 687-4670
 e-mail: ggentry@ndep.carson-city.nv.us

Surface Water Quality

Only 10% (about 15,000 miles) of Nevada's rivers and streams flow year round, and most of these waters are inaccessible. For this reporting period, Nevada assessed 1,631 miles of the 3,000 miles of accessible perennial streams for aquatic life uses. Fifty-one percent of the assessed stream miles fully supported this use, while 42% partially supported aquatic life use and 7% did not support this use. In lakes,

74% of the assessed acres fully supported aquatic life uses.

Agricultural practices (irrigation, grazing, and flow regulation) have the greatest impact on Nevada's water resources. Agricultural sources generate large sediment and nutrient loads. Urban drainage systems contribute nutrients, heavy metals, and organic substances that deplete oxygen. Flow reductions also have a great impact on streams, limiting dilution of salts, minerals, and pollutants.

Ground Water Quality

Nevada lacks comprehensive ground water protection legislation, but the state does have statutes that control individual sources of contamination, including mining, underground storage tanks, septic systems, handling of hazardous materials and waste, solid waste disposal, underground injection wells, agricultural practices, and wastewater disposal. Land use statutes also enable local authorities to implement Wellhead Protection Plans by adopting zoning ordinances, subdivision regulations, and site plan review procedures. Local authorities can implement certain source control programs at the local level.

Programs to Restore Water Quality

Nevada's Nonpoint Source Management Plan aims to reduce NPS pollution with interagency coordination, education programs,

and incentives that encourage voluntary installation of best management practices. The state's current approach to controlling nonpoint sources is to seek voluntary compliance through nonregulatory programs of technical and financial assistance, training, technology transfer, demonstration projects, and education. In 1994, the state updated the *Handbook of Best Management Practices* and supported NPS assessment activities in each of the state's six major river basins. Nevada's Wellhead Protection Program was finalized in January of 1994.

Programs to Assess Water Quality

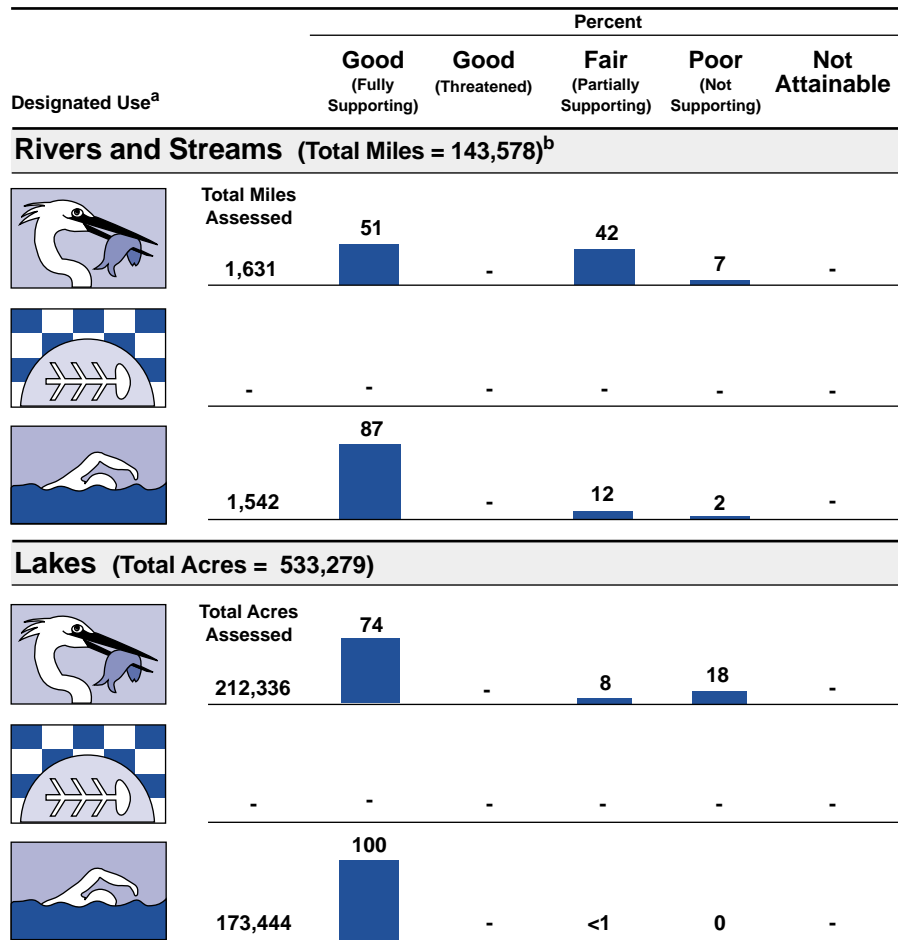
Several state, federal, and local agencies regularly sample chemical and physical parameters at over 100 sites in the 14 hydrologic regions of the state. The state also coordinates intensive field studies on Nevada's major river systems, the Truckee River Basin, Carson River Basin, Walker River Basin, and the Humboldt River Basin. The state also monitors a number of lakes and reservoirs. Additional monitoring data are provided by the U.S. Geological Survey and the Nevada Division of Agriculture (pesticide detection).

– Not reported in a quantifiable format or unknown.

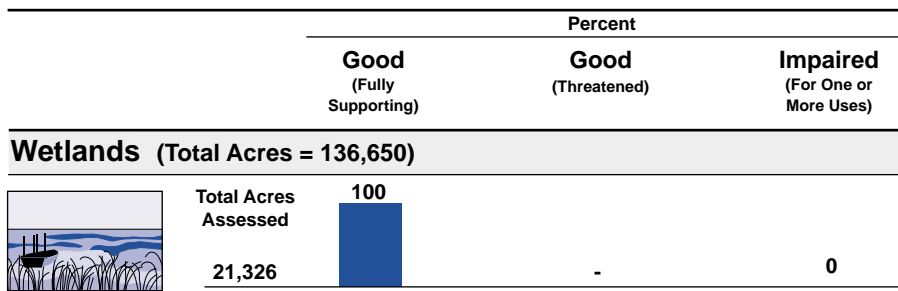
^a A subset of Nevada's designated uses appear in this figure. Refer to the state's 305(b) report for a full description of the state's uses.

^b Includes nonperennial streams that dry up and do not flow all year.

Individual Use Support in Nevada

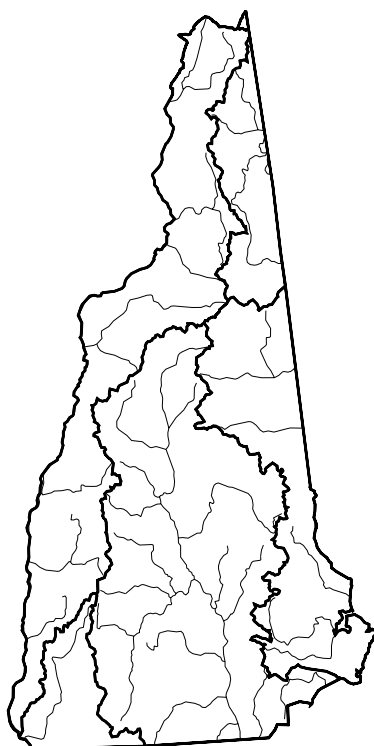


Summary of Use Support in Nevada



Note: Figures may not add to 100% due to rounding.

New Hampshire



— Basin Boundaries
(USGS 6-Digit Hydrologic Unit)

For a copy of the New Hampshire 1998 305(b) report, contact:

Gregg Comstock
State of New Hampshire
Department of Environmental
Services
Water Division
64 North Main Street
Concord, NH 03301
(603) 271-2457
e-mail: g_comstock@des.state.nh.us

Surface Water Quality

In 1994, New Hampshire issued a statewide freshwater fish consumption advisory due to mercury levels found in fish tissue, the primary source of which is believed to be atmospheric deposition from upwind states. When this advisory is included in the assessment, all fresh surface waters are, by definition, less than fully supporting all uses. If this advisory is not included in the assessment, however, over 84% of assessed river miles and 97% of assessed lake acres fully support all uses.

All of the state's estuarine waters fully support swimming, and nearly 99% support aquatic life

uses. None of the estuaries, however, fully support fish and shellfish consumption. Approximately 60% of the shellfish beds are closed due to bacteria, and 84% of the estuaries are defined as impaired because of a consumption advisory due to PCBs in lobster tomalley. All tidal waters are considered impaired for fish consumption due to a consumption advisory for PCBs in bluefish.

Excluding the statewide freshwater fish advisory for mercury, metals, PCBs, and bacteria are the leading causes of impairment in rivers. Low pH, exotic weeds, and nutrients are the major causes of impairment in lakes. Nonpoint sources are believed to be responsible for most of the pollution entering New Hampshire's waters.

New Hampshire did not report on the condition of wetlands.

Ground Water Quality

New Hampshire is highly dependent on ground water for drinking water. Natural ground water quality from stratified aquifers is generally good; however, aesthetic concerns such as taste and odor exist. Bedrock well water quality is also generally good, although this water can be impacted by naturally occurring contaminants including fluoride, arsenic, mineral radioactivity, and radon gas.

In addition to naturally occurring contaminants, there are many areas of localized contamination due primarily to releases of petroleum and volatile organic compounds from petroleum facilities, commercial and industrial operations, and landfills. Sodium from widespread winter application of road salt is also a contaminant of concern.

Programs to Restore Water Quality

New Hampshire has numerous laws, regulations, and programs to abate pollution from point and non-point sources. Over the past 25 years, all significant discharges of untreated municipal and industrial wastewater have been eliminated. To resolve remaining nonpoint source problems, the Department of Environmental Services (DES) initiated a watershed protection approach in 1995, which is in the process of being refined.

Programs to Assess Water Quality

DES has several lake assessment programs including an excellent volunteer monitoring program. DES implemented a 3-year rotating watershed monitoring program for rivers in 1989, and started a volunteer river monitoring program in 1997. To determine the ecological health of surface waters, DES initiated a biomonitoring program in 1995. In the future, DES hopes to develop and implement a probability-based monitoring strategy to provide more comprehensive assessments.

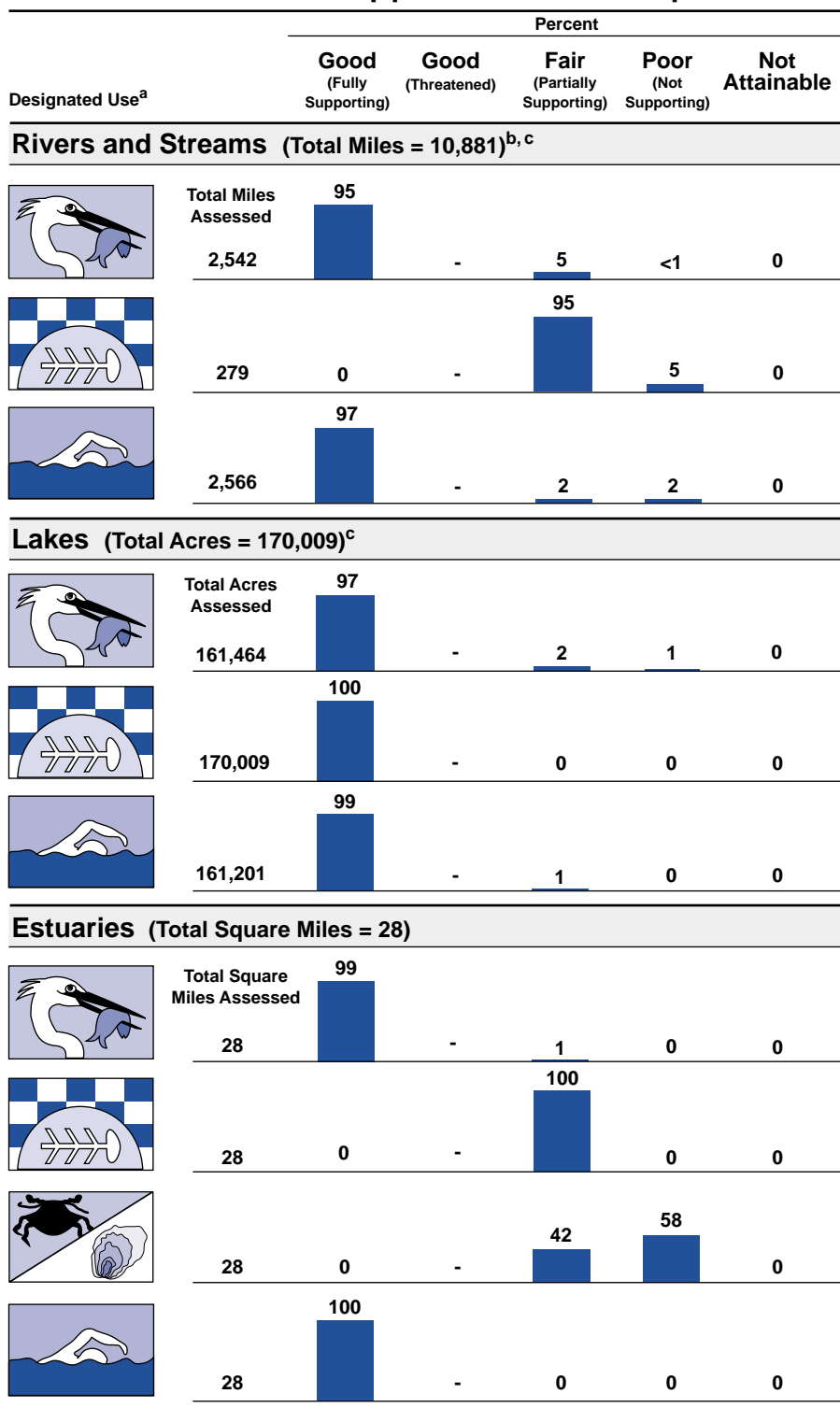
– Not reported in a quantifiable format or unknown.

^a A subset of New Hampshire's designated uses appear in this figure. Refer to the state's 305(b) report for a full description of the state's uses.

^b Includes nonperennial streams that dry up and do not flow all year.

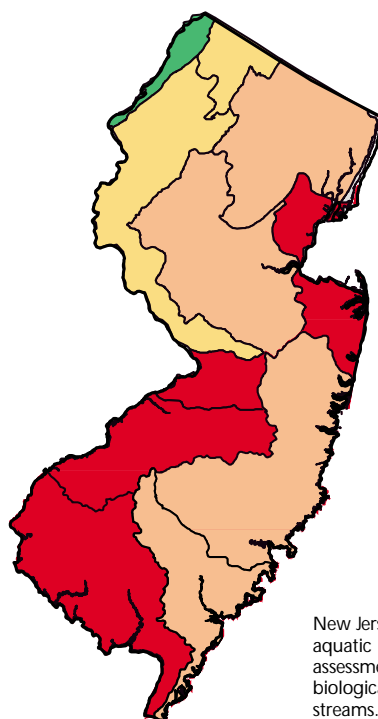
^c Excluding the statewide freshwater fish consumption advisory due to mercury.

Individual Use Support in New Hampshire



Note: Figures may not add to 100% due to rounding.

New Jersey



Percent of Assessed Rivers Meeting Aquatic Life Designated Uses

- 80% - 100% Meeting All Uses
- 50% - 79% Meeting All Uses
- 20% - 49% Meeting All Uses
- 0% - 19% Meeting All Uses
- Insufficient Assessment Coverage
- Basin Boundaries (USGS 8-Digit Hydrologic Unit)

New Jersey notes that aquatic life use support assessments are based on biological assessments of streams.

ocean beaches (127 miles) and 92% of bay bathing beaches fully support swimming. Of the remaining bay beaches, 2% partially support swimming and 6% do not support the use. Toxics in fish tissue have led to several commercial fishing bans and recreational fish consumption advisories for some species in fresh, tidal, and estuarine waters. Common surface water pollutants include bacteria, nutrients, and current and historical pesticides and industrial chemicals. Sources of pollution to New Jersey's waters include effluent; combined sewers, stormwater, and runoff; construction; historical contamination; and air deposition.

New Jersey did not report on the condition of wetlands.

Ground Water Quality

At present, there is generally an ample supply of good quality ground water in New Jersey. There are, however, problems with ground water quality in some areas. Natural contaminants in some ground waters include radium, radon, iron, sulfate, and hardness. Pollutants include mercury, bacteria, pesticides, and volatile organic compounds (VOCs). Known contamination by industrial and waste disposal activities is being actively managed. Overpumping in some areas contributes to the incidental spread and capture of contaminant plumes and salt water intrusion. Overpumping is being addressed through conservation, source water protection, conjunctive use, and construction of new supplies.

Programs to Restore Water Quality

Through implementation of the National Environmental Performance Partnership System and watershed management, New Jersey continues to develop statewide and

For a copy of the New Jersey 1998 305(b) report, contact:

Kevin Berry
NJ DEP
Division of Science Research
and Technology
401 East State Street, 1st Floor
P.O. Box 409
Trenton, NJ 08625-0409
(609) 292-9692
e-mail: kberry@dep.state.nj.us

Surface Water Quality

Surface water quality has remained excellent in undeveloped areas. However, 12% of the 3,815 assessed stream miles exhibited severely impaired aquatic biota, 52% were moderately impaired, and 35% were not impaired. All of the state's lakes are believed to be either threatened or actively deteriorating. Estuarine and coastal waters are generally in better condition. Shad populations have increased in the Delaware River from about 150,000 in 1980 to almost 800,000 in 1996 due to improvements in water quality. New Jersey has increased acres available for shellfish harvest since 1980, and over 86% of available shellfish beds are now available for harvest. All 179

watershed-based environmental goals, milestones, and indicators for improvements to water quality. The Performance Partnership Agreement and, in the future, Watershed Management Plans, orients numerous water program strategies toward meeting environmental milestones.

Programs to Assess Water Quality

New Jersey uses benthic macro-invertebrate monitoring to indicate aquatic life designated use support and potential causes of impairment, including nutrients, toxics, and habitat degradation. New Jersey began implementing a redesigned chemical monitoring program that combines broad-scale, long-term monitoring with intensive, site-specific monitoring. Shellfish beds are assessed based on recent water quality data and field surveys of pollutant sources. These assessments are reflected in annual regulatory updates of shellfish harvest areas. Emergency closures of shellfish waters are made as needed based on water quality data. Ocean and bay bathing beaches are also closed as needed based on very extensive monitoring for bacterial contamination. In addition, New Jersey recently formed a Water Assessment Team to enhance data assessment capabilities.

– Not reported in a quantifiable format or unknown.

^a A subset of New Jersey's designated uses appear in this figure. Refer to the state's 305(b) report for a full description of the state's uses.

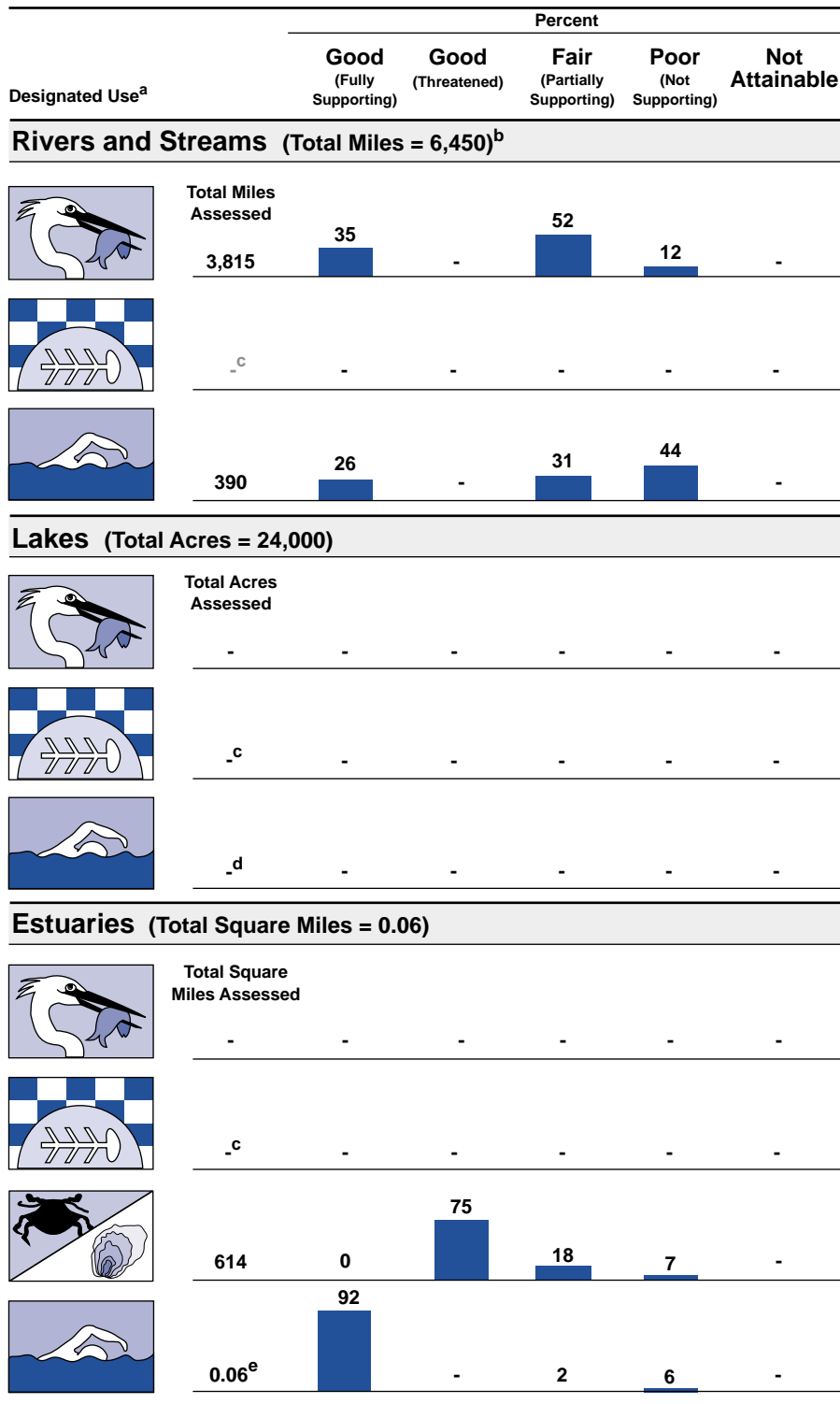
^b Includes intermittent streams.

^c New Jersey is developing an approach to report its fish advisories in the context of use support.

^d Lake bathing beach data are being compiled and will be reported in the future.

^e All estuarine waters are not assessed for recreational uses; however, the state monitors all 138 designated bay beaches and all 127 miles of ocean beaches.

Individual Use Support in New Jersey

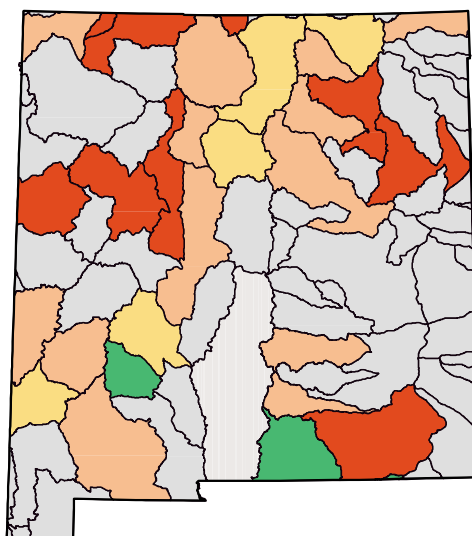


Note: Figures may not add to 100% due to rounding.

New Mexico

Percent of Assessed Rivers, Lakes, and Estuaries Meeting All Designated Uses

- 80% - 100% Meeting All Uses
- 50% - 79% Meeting All Uses
- 20% - 49% Meeting All Uses
- 0% - 19% Meeting All Uses
- Insufficient Assessment Coverage
- Basin Boundaries (USGS 8-Digit Hydrologic Unit)



For a copy of the New Mexico 1998 305(b) report, contact:

Gary King
New Mexico Environment
Department
Surface Water Quality Bureau
P.O. Box 26110
Santa Fe, NM 87502-6110
(505) 827-2928
e-mail: gary_king@nmenv.state.
nm.us

Surface Water Quality

About 28% of New Mexico's surveyed stream miles have good water quality that fully supports aquatic life uses. Ninety-nine percent of the surveyed river miles fully support swimming. The leading problems in streams include turbidity, thermal modifications, pathogens, nutrients, and metals. Nonpoint sources are responsible for over 91% of the degradation in New Mexico's 2,435 impaired stream miles. Sources of impairment include agriculture, hydrologic and habitat modification, and recreational activities.

Agriculture and recreational activities are the primary sources of nutrients, siltation, reduced shoreline vegetation, and bank

destabilization that impairs aquatic life use in 89% of New Mexico's surveyed lake acres. Mercury contamination from unknown sources appears in fish caught at 23 reservoirs. However, water and sediment samples from surveyed lakes and reservoirs have not detected high concentrations of mercury. Fish may contain high concentrations of mercury in waters with minute quantities of mercury because the process of biomagnification concentrates mercury in fish tissue.

New Mexico did not report on the condition of wetlands.

Ground Water Quality

Approximately 90% of the population of New Mexico depends on ground water for drinking water. The Environment Department has identified at least 1,233 cases of ground water contamination since 1927. The most common source of ground water contamination is small household septic tanks and cesspools. Leaking underground storage tanks, injection wells, landfills, surface impoundments, oil and gas production, mining and milling, dairies, and miscellaneous industrial sources also contaminate ground water in New Mexico. New Mexico operates a ground water discharger permit program that includes ground water standards for intentional discharges and a spill cleanup provision for other discharges.

Programs to Restore Water Quality







New Mexico uses a variety of state, federal, and local programs to protect surface water quality. The federal NPDES program is used to

protect waters from point source discharges. New Mexico's Nonpoint Source Management Program contains a series of implementation milestones that were designed to establish goals while providing a method to measure progress and success of the program. Implementation consists of the coordination of efforts among NPS management agencies, promotion and implementation of best management practices, coordination of watershed projects, inspection and enforcement activities, consistency reviews, and education and outreach activities.

Programs to Assess Water Quality

New Mexico uses a wide variety of methods to assess its water quality. Second-party data including dischargers' reports, published literature, data stored in EPA's database, as well as data generated by the U.S. Geological Survey are routinely reviewed. The New Mexico Environment Department generates large amounts of data through intensive surveys, assessment of citizen complaints, special studies aimed at areas of special concern (e.g., mercury concentration in water, sediments, and fish), short- and long-term nonpoint source pollution monitoring, TMDL investigations, and effluent monitoring. Special stream surveys conducted in 1996 and 1997 focused on the Gila and Pecos watersheds. These surveys are usually timed to coincide with annual periods of stress for aquatic life (e.g., low flows) and usually include benthic macroinvertebrate assessments to evaluate the integrity of aquatic communities.

Individual Use Support in New Mexico

Designated Use ^a	Percent				
	Good (Fully Supporting)	Good (Threatened)	Fair (Partially Supporting)	Poor (Not Supporting)	Not Attainable
Rivers and Streams (Total Miles = 110,741)^b					
 Total Miles Assessed					
3,995	28	-	33	39	0
			100		
93	0	-		0	0
	99	-	<1	<1	0
4,134					
Lakes (Total Acres = 997,467)					
 Total Acres Assessed			89		
124,827	11	-		<1	0
			100		
109,909	<1	-		0	0
	-	-	-	-	-
-	-	-	-	-	-

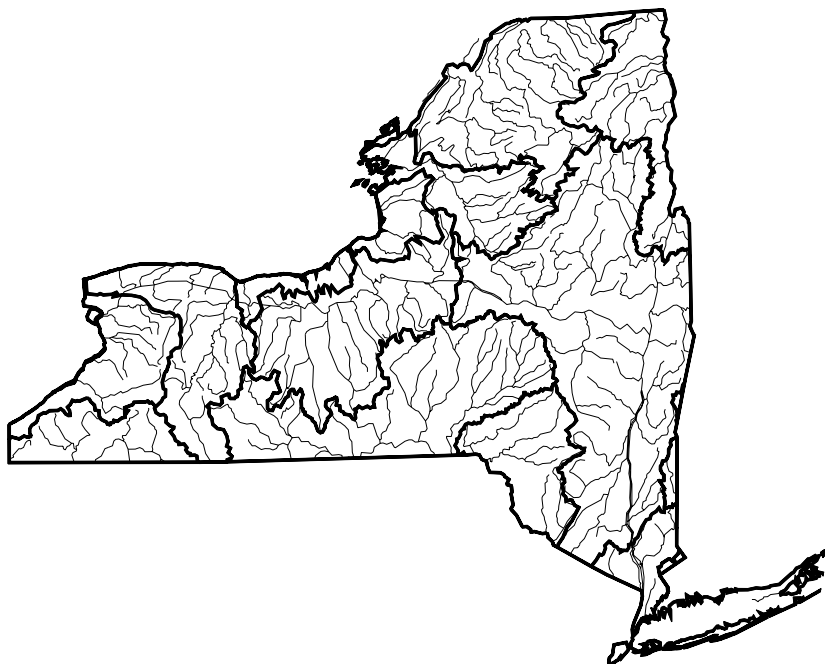
- Not reported in a quantifiable format or unknown.

^a A subset of New Mexico's designated uses appear in this figure. Refer to the state's 305(b) report for a full description of the state's uses.

^b Includes nonperennial streams that dry up and do not flow all year.

Note: Figures may not add to 100% due to rounding.

New York



Basin Boundaries
(USGS 6-Digit Hydrologic Unit)

For a copy of the New York 1998 305(b) report, contact:

Jeff Myers

New York State Department of
Environmental Conservation
Bureau of Watershed Assessment
and Research

50 Wolf Road

Albany, NY 12233

(518) 457-7130

e-mail: jamyers@gw.dec.state.ny.us

Surface Water Quality

Ninety-nine percent of New York's rivers and streams, 95% of the state's lake acres, all of the state's Great Lakes shoreline, and 99% of the bays and tidal waters have good water quality that fully supports aquatic life uses. Swimming is fully supported in over 99% of rivers, 87% of lakes, 94% of the Great Lakes shoreline, and more than 93% of estuarine waters. Sixty-five percent of New York's Great Lake's shoreline does not fully support fish consumption use because of a fish consumption advisory.

Agriculture is a major source of nutrients and silt that impair New York's rivers, lakes, and reservoirs. Land disposal, hydrologic modification, and habitat modification are

also major sources of water quality impairment in rivers and lakes. Urban runoff is a major source of pollution in the state's estuaries. Bacteria from urban runoff and other sources close about 104,000 acres (11%) of potential shellfishing beds in the New York City-Long Island region.

Contaminated sediments are a primary source of impaired rivers, lakes, Great Lake's shoreline, and estuarine waters in New York State. Sediments are contaminated with PCBs, chlorinated organic pesticides, mercury, cadmium, mirex, and dioxins that bioconcentrate in the food chain and result in fish consumption advisories.

Improvements to industrial and municipal discharges have had a significant impact on water quality. Since 1972, the size of rivers impacted by point sources has declined from about 2,000 miles to 230 miles.

New York did not report on the condition of wetlands.

Ground Water Quality

Approximately 6 million people in New York State use ground water as a source of drinking water. The state reports that 312 wells or springs statewide have been contaminated to some degree by organic pollutants. About 3% of the state's public water supply system wells (160 wells) are closed or abandoned due to contamination from organic chemicals. The most common contaminants are synthetic solvents and degreasers, gasoline and other petroleum products, and agricultural pesticides and herbicides (primarily aldicarb and carbofuran). The most common sources of contaminants include spills, septic systems, landfills, and abandoned hazardous waste sites.

Programs to Restore Water Quality

New York's nonpoint source control program depends on the cooperation of many individuals, groups, and agencies to make it work. The Nonpoint Source Coordinating Committee is composed of 17 federal, state, and local agencies that meet regularly to communicate, cooperate, and coordinate New York State's nonpoint source program. Coordination at the local level takes place through county committees composed of local agencies, representatives from state and federal agencies, and public interest groups.

Programs to Assess Water Quality

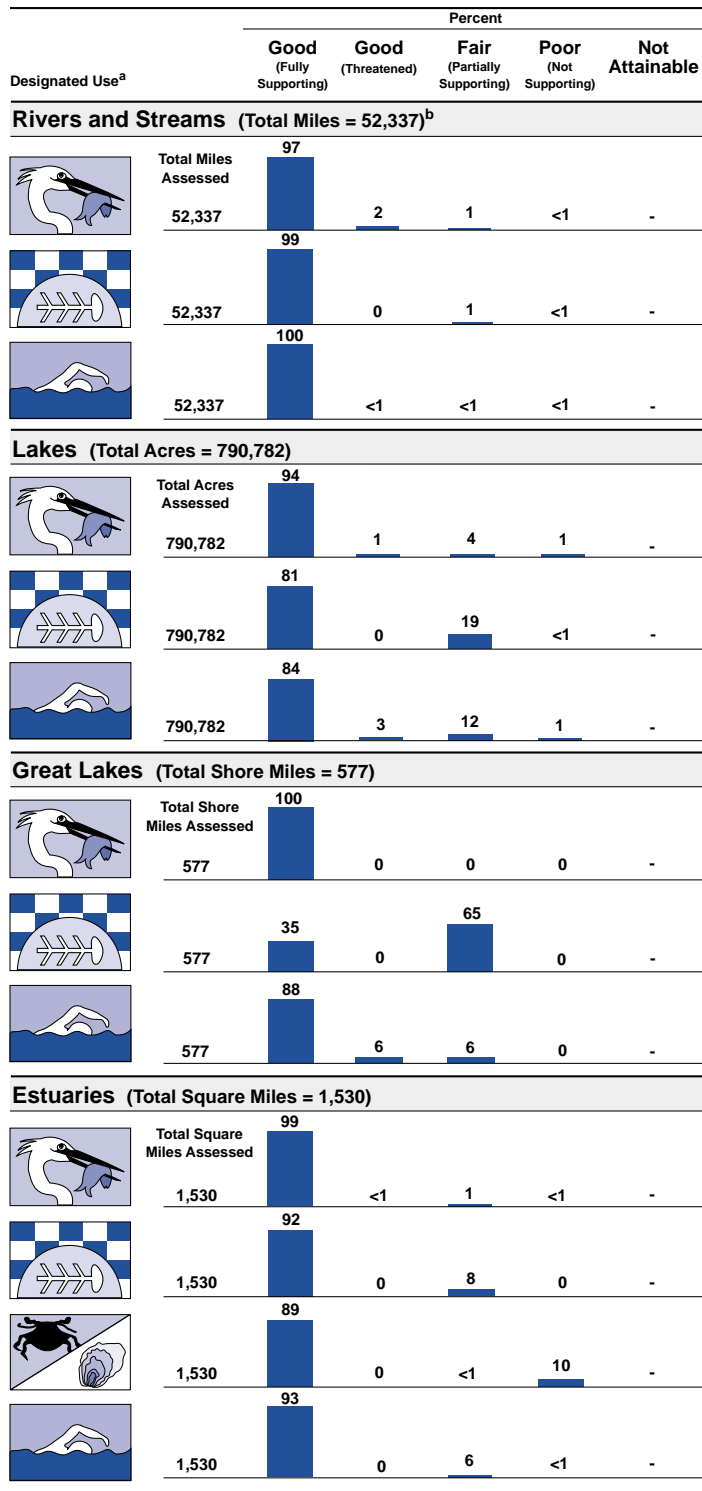
In 1987, New York State implemented the Rotating Intensive Basin Studies (RIBS), an ambient monitoring program that concentrates monitoring activities on one-third of the state's hydrologic basins for 2-year periods. The DEC monitors the entire state every 6 years. The RIBS strategy employs a tiered approach in which rapid biological screening methods are applied at a large number of sites during the first year of a 2-year study, and more intensive chemical monitoring is used to follow up the results of this biological effort in the second year.

– Not reported in a quantifiable format or unknown.

^a A subset of New York's designated uses appear in this figure. Refer to the state's 305(b) report for a full description of the state's uses.

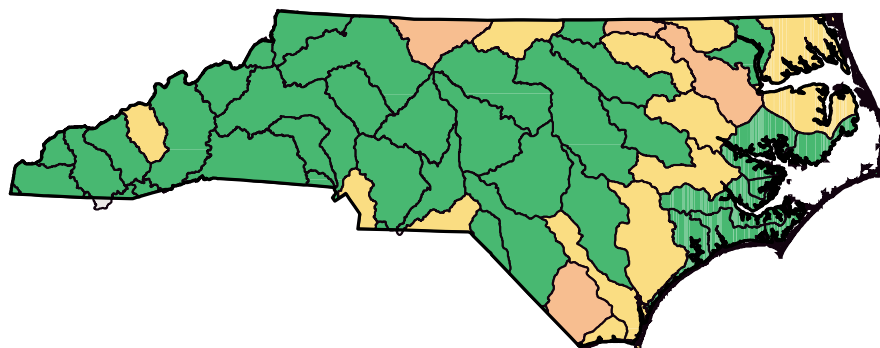
^b Includes nonperennial streams that dry up and do not flow all year.

Individual Use Support in New York



Note: Figures may not add to 100% due to rounding.

North Carolina



Percent of Assessed Rivers, Lakes, and Estuaries Meeting All Designated Uses

- 80% - 100% Meeting All Uses
- 50% - 79% Meeting All Uses
- 20% - 49% Meeting All Uses
- 0% - 19% Meeting All Uses
- Insufficient Assessment Coverage
- Basin Boundaries (USGS 8-Digit Hydrologic Unit)

For a copy of the North Carolina 1998 305(b) report, contact:

Darlene Kucken
 North Carolina Department of
 Environment and Natural
 Resources
 Division of Water Quality
 P.O. Box 29535
 Raleigh, NC 27626-0535
 (919) 733-5083
 e-mail: Darlene.Kucken@ncmail.net

Surface Water Quality

About 87% of the state's assessed fresh water rivers and streams have good water quality that fully supports designated uses, while 14% are impaired for one or more uses. The major sources of impairment are agriculture, urban runoff, and construction. These sources generate siltation, bacteria, and organic wastes that deplete dissolved oxygen.

Only 2% of the assessed lakes in North Carolina are impaired for aquatic life use. A few lakes are impacted by dioxin, metals, and excessive nutrient enrichment.

About 94% of the estuaries and sounds in North Carolina fully support designated uses. Agriculture, urban runoff, septic tanks, and point source discharges are the leading sources of nutrients, bacteria, and low dissolved oxygen that degrade estuaries.

Ground Water Quality

About half of the people in North Carolina use ground water as their primary supply of drinking water. Ground water quality is generally good. The leading source of ground water contamination is leaking underground storage tanks, which contaminate ground water with gasoline, diesel fuel, and heating oil. Comprehensive programs are under way to assess potential contamination sites and develop a ground water protection strategy for the state.

Programs to Restore Water Quality

North Carolina takes a watershed level approach to address water quality problems. In 1998, NC Division of Water Quality (DWQ) completed its first set of basinwide management plans, which summarize water quality and develop strategies for addressing problems for each of 17 river basins. Through the Unified Watershed Assessment process, North Carolina's DWQ identified 23 high-priority watersheds in need of restoration. Within these areas, 11 smaller catchments that are biologically impaired will be studied intensively to identify causes and sources of

pollution and develop strategies to restore aquatic system health.

Addressing nonpoint source pollution continues to be a priority for North Carolina. The DWQ has begun implementing rules that address nitrogen pollution from urban areas, agriculture, and fertilizer application across the entire Neuse River basin. In addition, a temporary rule is being implemented in the Neuse basin that protects riparian buffers adjacent to all perennial and intermittent streams, ponds, lakes, and estuaries. A similar program for the Tar-Pamlico River basin is currently being developed.

Programs to Assess Water Quality

Surface water quality in North Carolina was primarily evaluated using physical and chemical data collected by the DWQ from a statewide fixed-station network and biological assessments. These include macroinvertebrate (aquatic insect) community surveys, fish community structure analyses, phytoplankton analyses, bioassays, and limnological review of lakes and watersheds. Other sources of information were point source monitoring data, shellfish closure reports, lake trophic state studies, and reports prepared by other local, state, and federal agencies.

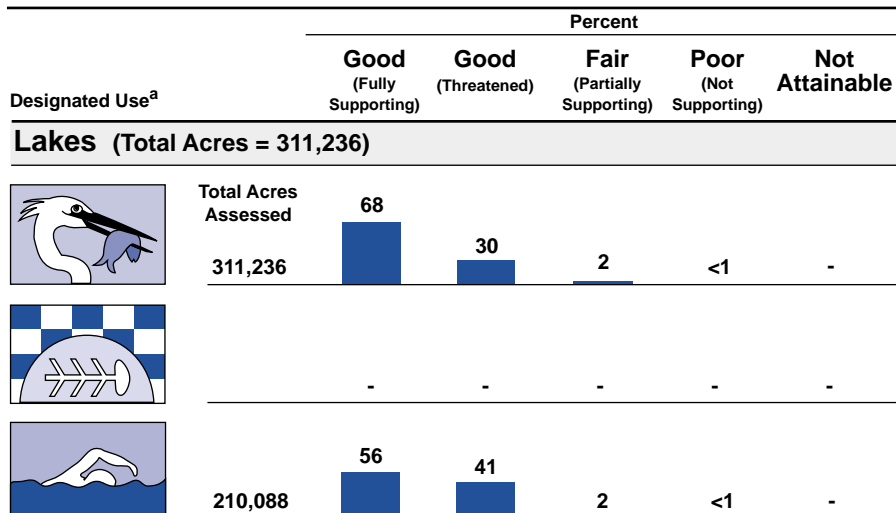
– Not reported in a quantifiable format or unknown.

^a A subset of North Carolina's designated uses appear in this figure. Refer to the state's 305(b) report for a full description of the state's uses.

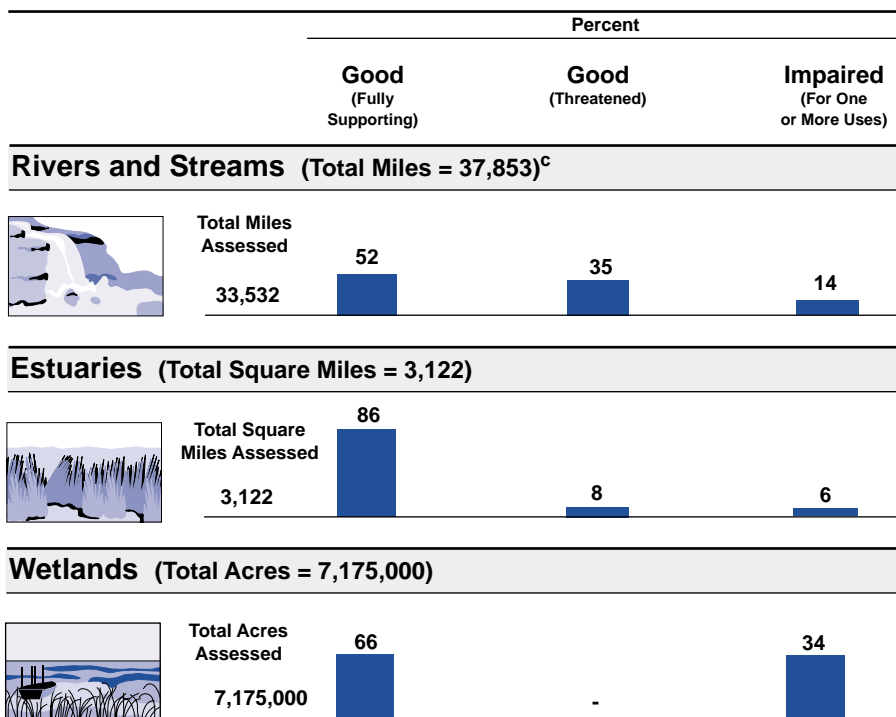
^b A summary of use support data is presented because North Carolina did not report individual use support in rivers and estuaries in their 1998 Section 305(b) report.

^c Includes nonperennial streams that dry up and do not flow all year.

Individual Use Support in North Carolina

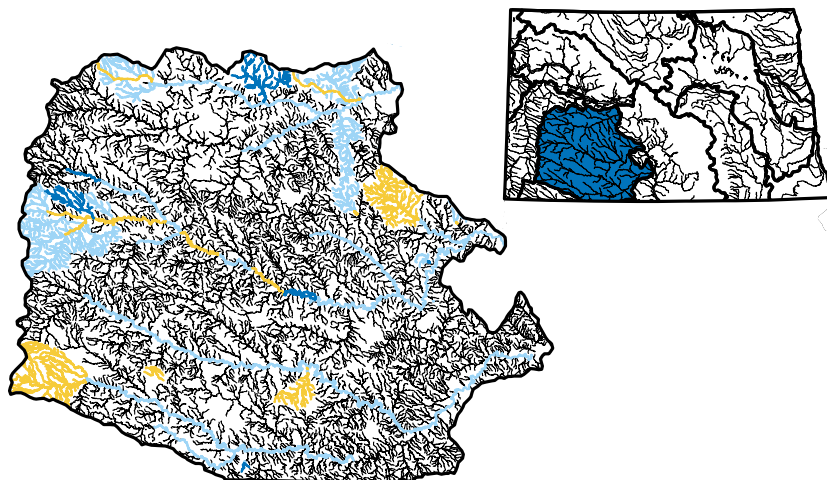


Summary of Use Support^b in North Carolina



Note: Figures may not add to 100% due to rounding.

North Dakota



- Fully Supporting
- Threatened
- Partially Supporting
- Not Supporting
- Not Assessed
- Basin Boundaries
(USGS 6-Digit Hydrologic Unit)

This map depicts aquatic life use support status.

For a copy of the North Dakota 1998 305(b) report, contact:

Michael Ell
 North Dakota Department of Health
 Division of Water Quality
 P.O. Box 5520
 Bismark, ND 58506-5520
 (701) 328-5214
 e-mail: mell@state.nd.us

The report is also available on the Internet at: <http://www.health.state.nd.us/ndhd/envIRON/wq/index/htm>

Surface Water Quality

North Dakota reports that 71% of its assessed rivers and streams have good water quality that fully supports aquatic life uses now, but good conditions are threatened in most of these streams. Sixty-seven percent of the assessed streams fully support swimming. Siltation, nutrients, pathogens, oxygen-depleting wastes, and habitat alterations impair aquatic life use support in 29% of the surveyed rivers and impair swimming in over 32% of the surveyed rivers. The leading sources of contamination are

agriculture, drainage and filling of wetlands, hydromodification, and upstream impoundments. Natural conditions, such as low flows caused by water regulation, also contribute to aquatic life use impairment.

In lakes, 96% of the surveyed acres have good water quality that fully supports aquatic life uses, and 85% of the surveyed acres fully support swimming. Siltation, nutrients, metals, and oxygen-depleting substances are the most widespread pollutants in North Dakota's lakes. The leading sources of pollution in lakes are agricultural activities (including nonirrigated crop production, pasture land, and confined animal operations), urban runoff/storm sewers, hydromodification, and habitat modification. Natural conditions also prevent some waters from fully supporting designated uses.

Ground Water Quality

North Dakota has not identified widespread ground water contamination, although some naturally occurring compounds may make the quality of ground water undesirable in a few aquifers. Where human-induced ground water contamination has occurred, the impacts have been attributed primarily to petroleum storage facilities, agricultural storage facilities, feedlots, poorly designed wells, abandoned wells, wastewater treatment lagoons, landfills, septic systems, and the underground injection of waste. Assessment and protection of ground water continue through ambient ground water quality monitoring activities,

the implementation of wellhead protection projects, the Comprehensive Ground Water Protection Program, and the development of a State Management Plan for Pesticides.

Programs to Restore Water Quality

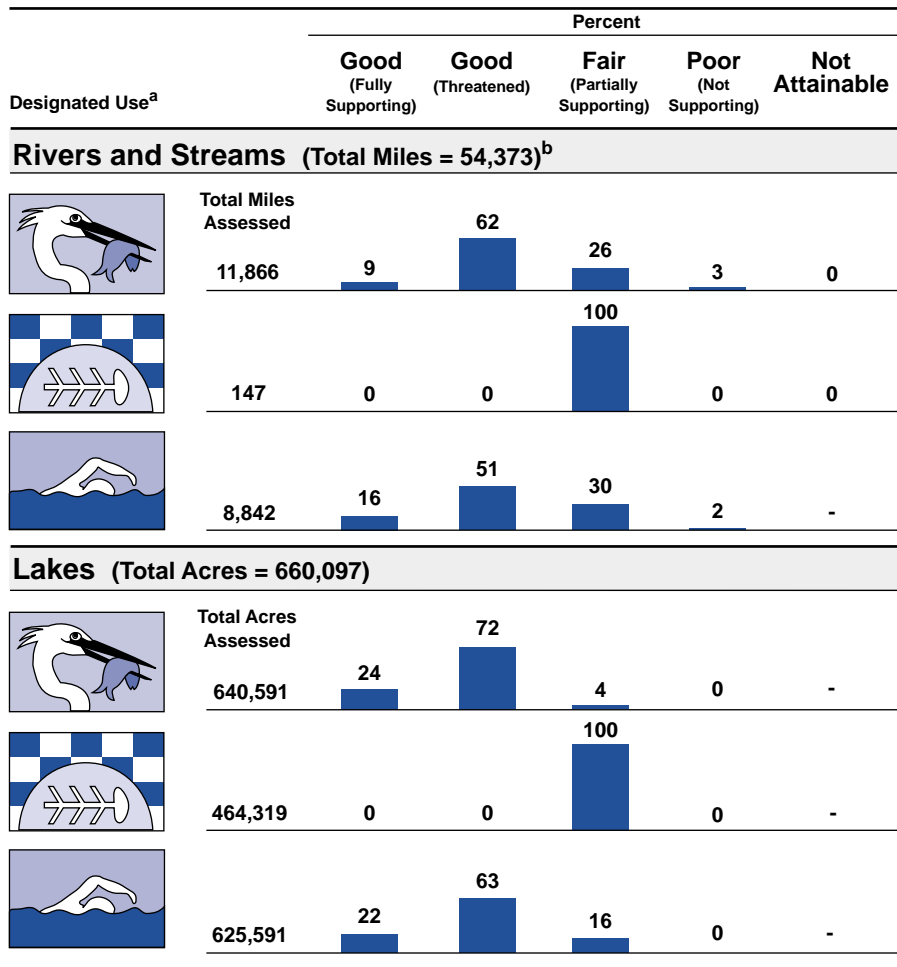
North Dakota's Nonpoint Source Pollution Management Program has provided financial support to 50 projects since 1990. Although the size, type, and target audience of these projects vary, the projects share the same basic goals: (1) increase public awareness of nonpoint source pollution, (2) reduce or prevent the delivery of NPS pollutants to waters of the state, and (3) disseminate information on effective solutions to NPS pollution.

Programs to Assess Water Quality

The North Dakota Department of Health monitors physical and chemical parameters (such as dissolved oxygen, pH, total dissolved solids, nutrients, and toxic metals), toxic contaminants in fish, whole effluent toxicity, and fish and macroinvertebrate community structure. North Dakota's ambient water quality monitoring network consists of 27 sampling sites on 24 rivers and streams. The Department's biological assessment program has grown since 1993. Currently, biosurveys are conducted at approximately 50 sites each year.

North Dakota is developing biological assessment methods and criteria for depressional and riparian wetlands.

Individual Use Support in North Dakota

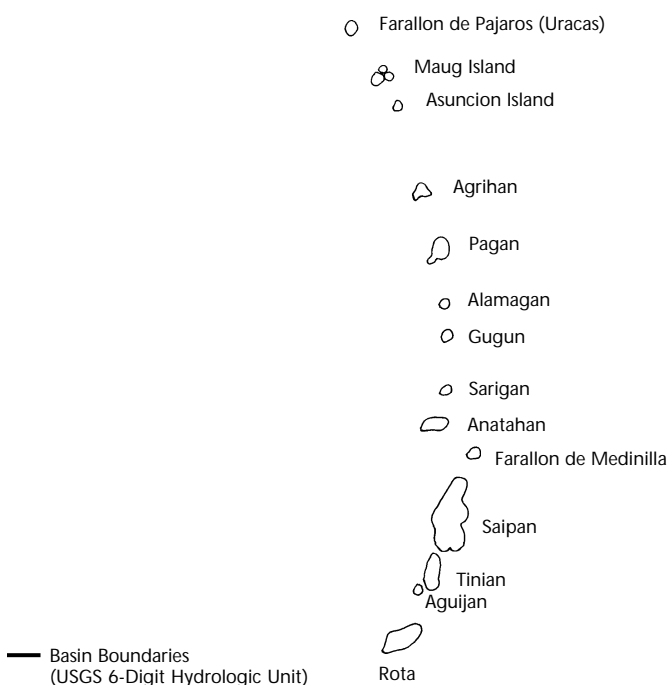


^a A subset of North Dakota's designated uses appear in this figure. Refer to the state's 305(b) report for a full description of the state's uses.

^b Includes nonperennial streams that dry up and do not flow all year.

Note: Figures may not add to 100% due to rounding.

Commonwealth of the Northern Mariana Islands



For a copy of the Commonwealth of the Northern Mariana Islands 1998 305(b) report, contact:

Ike Cabrera

Commonwealth of the Northern Mariana Islands
Division of Environmental Quality
P.O. Box 1304
Saipan, MP 96950
(670) 664-8500

Surface Water Quality

The Commonwealth of the Northern Mariana Islands (CNMI) is an archipelago of 15 islands in the Western Pacific Ocean located north of Guam. The largest and most populated of the Islands is Saipan with an area of 120 square kilometers and 52 miles of coastline. Currently, the majority of the monitoring of surface and ground waters takes place on Saipan, but future efforts will work to include the other islands.

The streams and wetlands on CNMI are not currently monitored because they are not used for

drinking water or recreation. Coastal marine waters are monitored because the quality of the water can affect the health of the coral reef ecosystem, on which subsistence, recreation, storm protection, and tourism depend.

Both point and nonpoint sources are responsible for lowering the quality of CNMI's water. Sewage outfalls, dredging, sedimentation from unpaved roads and development, and nutrients from golf courses and agriculture are the most significant stressors on the CMNI's marine water quality. The sediment and nutrients are the most detrimental to the health of the coral reefs and are the two most significant causes of marine water quality impairment in the CMNI.

CNMI did not report on the condition of wetlands.

Ground Water Quality

Ninety-nine percent of the drinking water on the islands comes from aquifers. With an expected population increase of 40% by 2000, protecting the aquifers for present and future uses is a high priority. Greater demands for water have already led to overpumping of the aquifer. Overpumping can lead to high levels of chlorides in the water and eventually to salt water intrusion, an irreversible condition that causes permanent damage to the aquifer. Ground water quality is also threatened from industry (garment factories), failing septic systems, and service industries (gas stations, repair shops, and power generators). In addition, there is also concern about historical contamination from resulting from military activities from 1940 to the 1960s.

Programs to Restore Water Quality

Permits are required for all water wells in the CNMI. The permits require semiannual water sample results on chlorides, fecal coliform bacteria, and other potential contaminants. Along with the permits, pumping rates for new wells and for existing wells with increased chloride levels are decreased. A fairly stringent permitting program is also in place for new septic tank construction and, at the same time, funding is being sought to extend existing sewer lines into highly populated areas. Underground and above-ground storage tanks must be reviewed and approved before installation. Chemical storage is controlled by permitting and inspection of storage facilities.

Programs to Assess Water Quality



CNMI's Department of Environmental Quality has an extensive monitoring program that includes monitoring public water supply systems and nearshore marine water for traditional water quality parameters. Biocriteria methods are used to monitor the health of coral reefs.

Although the extent of contamination caused by World War II activities on the islands has not been fully investigated, an area of particular concern, the Puerto Rico dump, has been found to be in violation of the Clean Water Act. As part of a dump closure plan, an independent firm will be contracted to monitor and evaluate the site and the water quality surrounding the dump.

^a A subset of CNMI's designated uses appear in this figure. Refer to the commonwealth's 305(b) report for a full description of the commonwealth's uses.

^b Includes nonperennial streams that dry up and do not flow all year.

Individual Use Support in Northern Mariana Islands

Designated Use ^a	Percent				
	Good (Fully Supporting)	Good (Threatened)	Fair (Partially Supporting)	Poor (Not Supporting)	Not Attainable
Rivers and Streams (Total Miles = 59)^b					
 Total Miles Assessed	-	-	-	-	-
 -	-	-	-	-	-
 -	-	-	-	-	-
Estuaries (Total Square Miles = 15,975)					
 Total Square Miles Assessed	-	-	-	-	-
 -	-	-	-	-	-
 -	-	-	-	-	-
Ocean Shoreline (Total Shore Miles = 52)					
 Total Shore Miles Assessed	-	-	-	-	-
 -	-	-	-	-	-
 -	-	-	-	-	-
 1	0	0	0	100	-

Note: Figures may not add to 100% due to rounding.