

Strategy for Monitoring Oregon's Waters

<http://www.deq.state.or.us/lab/techrpts/docs/WaterMonitoringStrategyFinal.pdf> .The purpose of the strategy is to identify existing and needed monitoring programs to answer the following questions statewide:

1. What is the overall quality of waters in the State?
2. To what extent is water quality changing over time?
3. What are the problem areas and areas needing protection?
4. What level of protection is needed?
5. How effective are clean water projects and programs?

Current Water Quality Monitoring Programs that occur in the Coastal Zone Management Area are as follows:

- **Ambient Water Quality Monitoring:** <http://www.deq.state.or.us/lab/wqm/wqimain.htm>: This long term monitoring program is used to track the status and trend of water quality at targeted locations around Oregon. Water quality parameters tracked at these locations include:
 - Water Temperature
 - Dissolved Oxygen
 - pH
 - Turbidity
 - Conductivity
 - Bacteria
 - Nutrients
 - Chlorophyll
 - Biochemical Oxygen Demand
- **Beach Bacteria Monitoring:** <http://www.deq.state.or.us/lab/wqm/beachpgm.htm>: This is a collaborative program between the Oregon Health Authority (OHA) and DEQ. Beaches along the Oregon coast are routinely monitored for bacteria along the Oregon coast from July to October. Beaches with high bacteria are posted with advisories warning beachgoers to avoid contact with the water until data show bacteria levels are within acceptable limits. Some bacterial source investigation work is also included in this program as resources allow.
- **National Aquatic Resource Surveys:** <http://water.epa.gov/type/oceb/assessmonitor/ncca.cfm>: This EPA, Office of Water, program is implemented on a nationally for a different water body type each year. The purpose of this program is to provide national, regional and in some cases state level assessments of the condition of rivers and streams, lakes and reservoirs, **coastal waters** and wetlands on an annual rotating cycle. This program provides critical information to

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Congress on the status of the nation's waters and incorporates water quality, biological data and physical habitat data using randomly selected monitoring locations. In addition, it provides Oregon with valuable resources to assess water bodies that receive less attention.

- **Toxics Monitoring Program:** <http://www.deq.state.or.us/lab/wqm/toxics.htm>
Overall, goals for DEQ's Water Quality Toxics Monitoring Program are to:
 - Gather information to characterize the presence and concentration of chemicals of concern in Oregon's waters.
 - Use this information to identify sources of these chemicals.
 - Present and make available information gathered for public benefit.
 - Work with DEQ internal groups, community groups and Oregon citizens to identify opportunities for reducing these pollutants.
 - In 2013 the Toxics Monitoring Program is collecting data on the Oregon Coast.
- **Total Maximum Daily Load Monitoring (TMDL):** Under section 303(d) of the Clean Water Act, states, territories, and authorized tribes are required to develop lists of impaired waters. Once identified, additional monitoring data is required to identify the source of pollutants causing water quality impairments. Data collection for pollutant source identification is ongoing and is based on the availability and prioritization of TMDL monitoring resources and needs. A variety of studies are being conducted in the Coastal Zone.
- **Volunteer Monitoring Program** <http://www.deq.state.or.us/lab/wqm/volmonitoring.htm>:
The Volunteer Monitoring Program's goal is to involve Oregonians in identifying and solving the state's water quality problems. The program provides support including technical assistance in monitoring design, equipment use, data management and analysis. Volunteer groups participating in the program are eligible to receive high quality monitoring equipment on loan. The data collected by many of these groups along the coast is evaluated and captured in DEQ's data repository and may be used assess compliance with water quality standards or for other assessments if of sufficient quality.
- During **Oregon's 2013 Legislative Session** additional monitoring resources were added to address data gaps and needs. Included in those resources were:
 - Resources to begin assessing the impacts of suction dredge mining.
 - Resources to reestablish biological monitoring on a rotating basin basis.
 - Resources for enhanced groundwater monitoring.
 - Resources for additional pesticide monitoring in surface water.
 - Over time some or all of these activities may be conducted in the Coastal Zone Management Area.
- Additional effort is being put into close **collaboration with sister natural resource agencies** to fill data gaps, increase the efficient use of resources, and use areas of expertise and capacity and to clearly define roles and responsibilities associated with water quality monitoring activities.