



Agricultural Practices Program

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Problem definition

Agriculture is the process of growing crops or raising livestock for commercial or recreational purposes. It is a leading source of water pollution to the Puget Sound. About half, or 145,000 of the state's dairy animals, are concentrated in the Puget Sound basin.

Livestock manure, farm chemicals and other pollutants can enter fresh and marine waters through runoff. Such pollutants and higher water temperatures due to bare areas along rivers and streams (because of grazing or farming) contribute significantly to the Sound's pollution problem. The results can be detrimental. Shellfish beds may be closed because of bacterial contamination. Fish habitat may be degraded because of warmer water temperatures. Surface and groundwater sources of drinking water may be contaminated.

In the Puget Sound basin, more than half of the river stations monitored routinely for fecal coliform bacteria violate state standards, although no consistent trend can be observed over time. The Department of Ecology estimates that agricultural practices impair about 55 percent of the river miles assessed statewide.

Institutional framework

The overall policies for clean water and habitat protection are set in state and federal law. The federal Clean Water Act and state Water Pollution Control Act require all sources of pollution to meet water quality standards to protect designated water uses, including drinking water, fish and wildlife, and aquaculture uses. The Coastal Zone Management Act requires states to develop nonpoint programs that control pollution in the coastal zone. The federal Endangered Species Act contains provisions to protect endangered and threatened species from various threats, including nonpoint source pollution. But with the exception of commercial dairy farms, Washington State relies largely on locally driven voluntary programs to achieve clean water from agricultural practices.

The main approach to achieving clean water in the Sound is to help farmers control and prevent pollution by implementing individual farm management plans. These plans are developed with assistance from local conservation districts or local governments. State-level financial and technical assistance (and, when necessary, enforcement) supports local efforts. In addition, the federal Natural Resources Conservation Service provides

What does "shall" mean?

The Action Team has determined that the actions in this plan are needed to protect and restore Puget Sound. Consistent with the importance of these actions, this plan says that appropriate implementers "shall" perform the actions. However, implementation of many of these actions is a long-term process. The Action Team's work plans will identify the actions that need to be taken each biennium to implement this management plan. Implementation of actions in the work plans is subject to the availability of funds and public input into the decision-making processes of implementing entities. When an action is included in a biennial work plan, the Action Team expects that it will be implemented in accordance with the relevant provisions of the Puget Sound management plan, in accordance with Chapter 90.71 RCW.

technical assistance and cost-share programs to conserve environmental quality and habitat.

Many local watershed action plans developed under the Puget Sound Action Team's watershed planning rule for rural watersheds (Chapter 400-12 WAC) identify management actions to protect water quality from poor agricultural practices. More recent water resource planning and management conducted under the state Watershed Management Act in Puget Sound Watersheds may also identify management actions to protect water quality from nonpoint pollution sources.

In regard to dairy farms, state law requires the Department of Ecology to register, inspect and issue waste discharge permits to all dairies in the state that discharge to surface waters. In addition, all commercial dairy farms must develop and carry out plans to minimize water pollution from animal wastes and farm runoff. Local conservation districts, local governments and the Washington State University Cooperative Extension Service help farmers develop these plans. The Conservation Commission provides guidelines for developing the plans, and local conservation districts review and approve them. The plans must be in place by July 2002 and fully implemented by December 2003.

An Advisory and Oversight Committee oversees the dairy nutrient management program, and a separate task force will review how well the dairy nutrient management law protects water quality. Recommendations on how to improve the program will be made to the legislature, as necessary.

Program Goal

To reduce and ultimately eliminate harm from pollution stemming from agricultural practices on both commercial and noncommercial farms, including animal waste pathogens, pesticides, sediments and nutrients.

Program Strategy

The strategy for achieving this goal is to implement comprehensive programs through state and local agencies involving education, financial and technical assistance, and, as necessary, regulation and enforcement, to effectively implement farm management plans and management practices and measures.

AG-1. Local Conservation Programs

Conservation districts, local governments, and Washington State University (WSU) Cooperative Extension shall implement cooperative and comprehensive programs to assist commercial and noncommercial farmers in controlling and preventing pollution. Implementation of management practices and measures shall be consistent with conservation district and Natural Resource Conservation Service (NRCS) standards and recommendations and, as appropriate, management measures of the Coastal Nonpoint Pollution Control Program. Conservation districts and counties are encouraged to pursue the adoption of special assessments to finance ongoing conservation district activities under the provisions of Chapter 89.08.400 RCW.

Target Date for AG-1: Ongoing.

AG-2. Animal Waste Management

Conservation districts, local governments, WSU Cooperative Extension, and state and federal agencies shall continue to work cooperatively with commercial and noncommercial farmers to provide comprehensive assistance on the proper management of wastes from farm animals.

Dairy farms are to have fully implemented dairy nutrient management plans through the conservation district and NRCS system by December 31, 2003. In responding to water quality violations caused by farm animal wastes, the Department of Ecology shall carry out timely inspections and enforcement actions to ensure compliance with the state Clean Water Act (Chapter 90.48 RCW).

Farms with animal waste management activities that are not connected to a dairy operation are strongly encouraged to implement farm plans written by conservation districts or by the NRCS.

Target Date for AG-2: Ecology shall inspect all dairies by October 1, 2000. Conservation Districts shall formally approve dairy nutrient management plans (DNMPs) for all dairy farms by July 1, 2002. Conservation Districts and dairy producers shall jointly certify full implementation of all approved DNMPs by December 31, 2003.

AG-3. Cost-Sharing Programs

Ecology and the Washington Conservation Commission shall continue to establish adequately funded and accessible cost-sharing programs for

animal keeping, pasture management and other situations where agricultural management practices or measures are required in priority watersheds. The Conservation Commission shall consider and if appropriate, prepare, legislation to establish a permanent funding source for agricultural management practices and measures. Ecology and the Conservation Commission are implementing a \$1.5 million State Revolving Fund (SRF) loan program for managing dairy nutrients.

Target Date for AG-3: Ongoing.

AG-4. Measuring Program Effectiveness

The Puget Sound Action Team support staff shall facilitate evaluation of program results by evaluating program and environmental performance measures. This supports the adaptive management approach described in the Estuary Management Program of the *Puget Sound Management Plan*. At a minimum, these evaluations should incorporate information from the following monitoring and assessment sources:

- a. Program measures that track implementation of this program:
 - Ecology issuance of dairy permits, compliance inspections and enforcement.
 - Ecology approval and certification of management plans for dairy nutrients.
- b. Measures of environmental conditions for which this program is a major or important determinant (recognizing that these measures may be affected by several plan programs):
 - Trends in fecal coliform bacteria in the Nooksack watershed.

