

# Coast Fork, Middle Fork, and McKenzie Subbasins



## Water Quality Overview



### Issues

**Total Maximum Daily Loads (TMDLs):** DEQ has developed TMDLs to address elevated **temperature** and **mercury** levels throughout the three Subbasins. A planning target has been proposed for **bacteria** in urban and agricultural areas.

•**Temperature** – Waters in these Subbasins are warmer than is necessary to protect salmonid rearing and spawning. Lack of riparian vegetation and impacts from dams and water withdrawals are the major causes of elevated stream temperatures.

•**Bacteria** – People can become sick if they ingest water that is contaminated with bacteria when they are swimming, recreating or in contact with the water. Urban and rural/agricultural sources can be major contributors to the high bacteria levels.

•**Mercury** – The Willamette River has fish consumption advisories due to elevated levels of mercury found in some fish species. General sources of mercury include air deposition and erosion of soils which contain mercury from natural and anthropogenic sources. Both Cottage Grove and Dorena Reservoirs have elevated levels of mercury in fish, due in part to legacy mining activities.

**303(d) List and Pollutants of Concern:** In recent years, a number of additional waterbodies were added to the State's list of impaired waters (known as the 303(d) list) for other parameters of concern such as dissolved oxygen. These new listings have not yet been addressed by a TMDL. DEQ will address these pollutants in future updates of the TMDL. Other concerns in the watershed include sedimentation and loss of fish habitat.

**Existing TMDLs:** A TMDL was developed in the Coast Fork Subbasin in 1996 for ammonia and phosphorus to address low dissolved oxygen and elevated pH.

### Actions

DEQ is actively working with a variety of partners on the implementation of the Willamette TMDLs. These partners include cities, counties, Watershed Councils, Soil and Water Conservation Districts (SWCDs), Lane Council of Governments (LCOG), and state and federal agencies.

Many watershed councils have or will develop their watershed plans and have started on implementation. SB1010 plans for agricultural lands have been developed. LCOG is in the process of working with small communities to assist them with the development of their TMDL implementation plans. Many of these partners are also involved in the effort to develop an Action Plan to address nitrate in the groundwater in the Southern Willamette Valley Ground Water Management Area.

#### Major DEQ activities include:

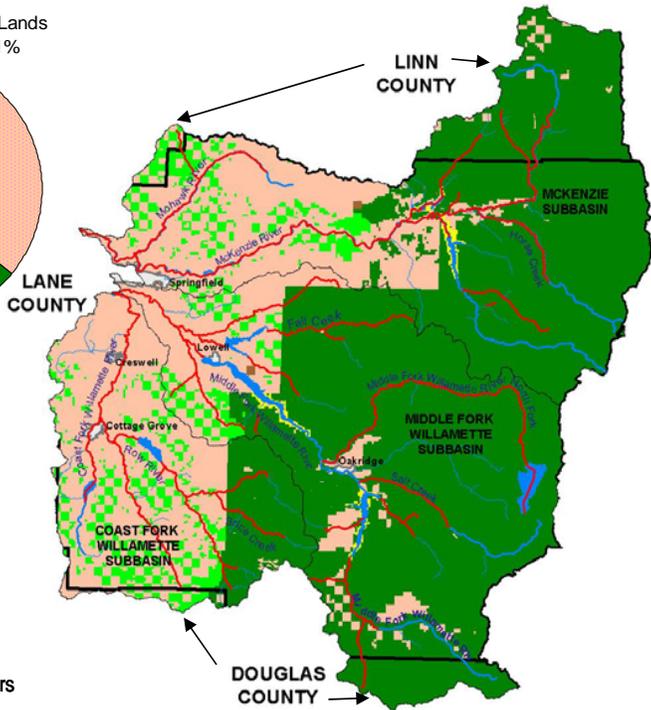
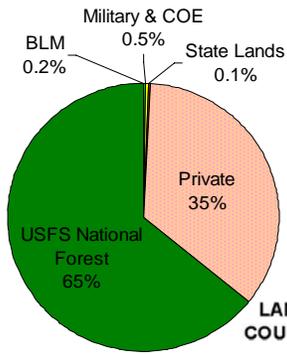
- NPDES permitting of waste water discharges including stormwater from the Eugene/Springfield area
- Technical and financial assistance for non-point source identification and implementation activities
- Cleanup activities have begun at the Black Butte mine, located above the Cottage Grove Reservoir.
- Technical assistance for volunteer monitoring efforts.

### Contact information

For more information on DEQ's work in the Coast Fork Subbasin, please contact Pamela Wright in Eugene at 541-686-7719. For information on the McKenzie and Middle Fork Subbasins, please contact Jared Rubin at 541-687-7437

or visit the DEQ's webpage at: <http://www.deq.state.or.us/wg/Willamette/WRBHome.htm>

[Last Updated: September 2006]



- Military & CEO
- BLM
- County Lands
- National Wildlife Refuge
- Private
- State Lands
- USFS National Forest
- Temperature Listed Waters

**Toxics:** A 27% reduction in the load of total mercury is needed in the Willamette Basin. Mercury in the Willamette will be addressed using a basin-wide approach which includes:

- Monitoring and mercury minimization planning from selected domestic and industrial point sources
- Erosion control and better stormwater management to decrease the load of mercury entering the Willamette system.
- Subbasin-specific efforts which include cleanup work at the Black Butte Mine and continued assessment of the Bohemia Mining district.

**Bacteria:** While waters in these subbasins do not regularly exceed bacteria standards, small streams draining urban or agricultural areas may have high bacterial concentrations. Reduction targets have been suggested for planning purposes in urban (80-94% reduction) and agricultural areas (66-83% reduction).

- MS4 Stormwater permits will continue to address bacteria contributions from sources in urban areas.
- ODA and SWCDs to manage contributions from agricultural and rural lands under SB1010 plans and CAFO permits.
- Cities and counties will continue to identify and address failing septic systems.
- Municipalities will address inflow and infiltration problems that may cause sewage bypasses.

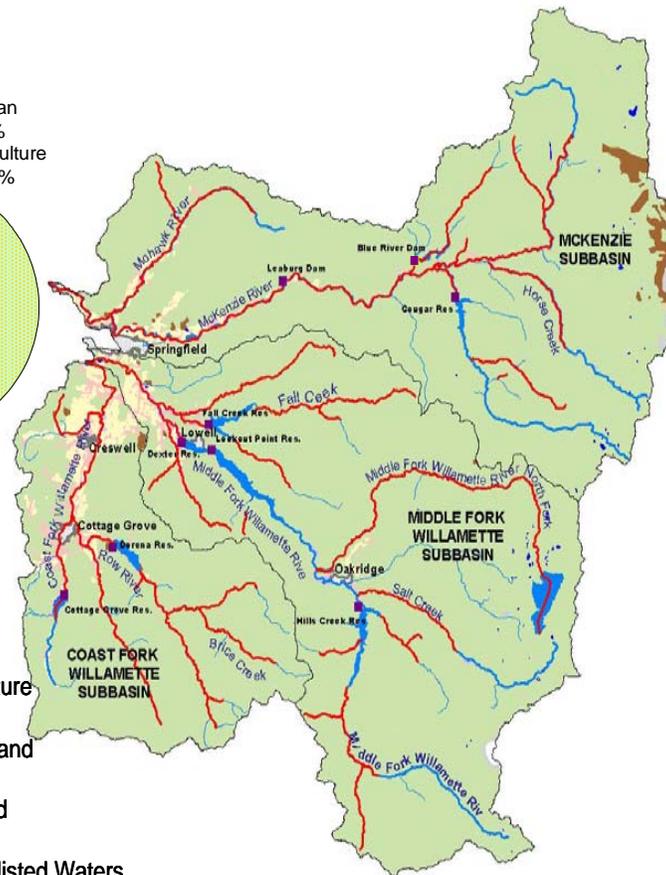
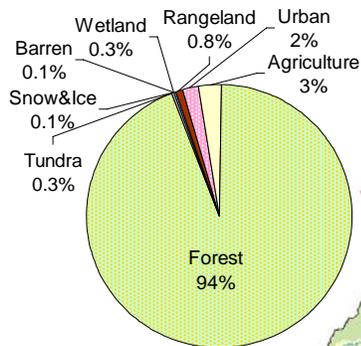
**Temperature:** Further study of the effect of dams on water temperature and the potential for mitigation are needed. Selective withdrawal towers, such as the one constructed at Cougar Reservoir, and the feasibility of other operational changes, will be explored.

Reductions in stream temperature can be achieved by:

- Reducing the load of solar radiation by planting vegetation to increase stream-side shading
- Increasing base flow
- Changes in dam operation

Resources available for temperature improvement, implementation, and habitat restoration projects:

- Loans and grants to help municipalities, watershed councils and SWCDs
- SB1010 plan implementation by ODA, SWCDs, and watershed councils



- Agriculture
- Urban
- Rangeland
- Forest
- Wetland
- Barren
- 303(d) listed Waters

