

# ROGUE BASIN WATER QUALITY IMPLEMENTATION PLAN

## URBAN JURISDICTIONS AND IRRIGATION DISTRICTS



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Exhibit A



Rogue Basin Water Quality Implementation Plan:  
Urban Jurisdictions and Irrigation Districts

<b>1.0 Introduction.....</b>	<b>1</b>
1.1 TMDL Responsibility and Regional Cooperation and Regional Collaboration	1
1.1.1 TMDL Responsibility and Regional Cooperation	1
1.1.2 Responsibilities of Designated Management Agencies as per the Rogue River TMDL (ODEQ 2008)	3
1.2 Background	7
1.2.1 TMDL Process	7
1.2.2 TMDL Pollutants: Temperature	7
1.2.3 TMDL Pollutants: Bacteria	7
<b>2.0 Potential Management Strategies.....</b>	<b>8</b>
<b>3.0 Implementation Matrix, Adaptive Management, Monitoring, and Reporting.....</b>	<b>10</b>
3.1 Implementation Matrix	10
3.2 Implementation Monitoring and Reporting	10
3.3 Effectiveness Monitoring	11
3.4 Adaptive Management	11
3.5 Compliance with Land Use Regulations	11
<b>Appendices .....</b>	<b>12</b>
DMA MATRIXES	13

Rogue Basin Water Quality Implementation Plan:  
Urban Jurisdictions and Irrigation Districts

## **1.0 INTRODUCTION**

This document is the Rogue River Basin Water Quality Implementation Plan (WQIP) for the urban jurisdictions and irrigation districts identified as Designated Management Agencies (DMAs) by the Rogue River Basin TMDL (DEQ, 2008): Jackson, Josephine, and Curry Counties, Cities of Shady Cove, Butte Falls, Eagle Point, Gold Hill, Rogue River, Cave Junction, Grants Pass, and Gold Beach, Eagle Point Irrigation District (EPID), Rogue River Valley Irrigation District (RRVID), Medford Irrigation District (MID), Gold Hill Irrigation District (GHID), and Grants Pass Irrigation District (GPID). This plan outlines the steps these DMAs will implement over the next five years to reduce temperature and bacteria levels. Implementation plans from urban DMAs are required to comply with the Rogue River Basin TMDL to meet pollutant load allocations for the Rogue River Basin TMDL as approved by the U.S. Environmental Protection Agency (EPA) in December 2008. This plan is one part of a larger collaboration to meet the TMDL (see sections 1.1.1 and 1.1.2) program goal under the Clean Water Act and achieve the beneficial uses of the Rogue to make all waters fishable and swimmable.

The Rogue River Basin TMDL (DEQ, 2008) applies to all perennial and intermittent streams, rivers, and lakes within the Rogue River Basin in Oregon with the exception of those areas where TMDLs have been previously developed as detailed in the following list: Bear Creek Watershed (TMDL approved 2007), Applegate Subbasin (TMDL approved 2003), the Lobster Creek Watershed (TMDL approved 2002) and Upper and Lower Sucker Creek (TMDLs approved 1999 and 2002, respectively).

### **1.1 TMDL Responsibility and Regional Cooperation and Regional Collaboration**

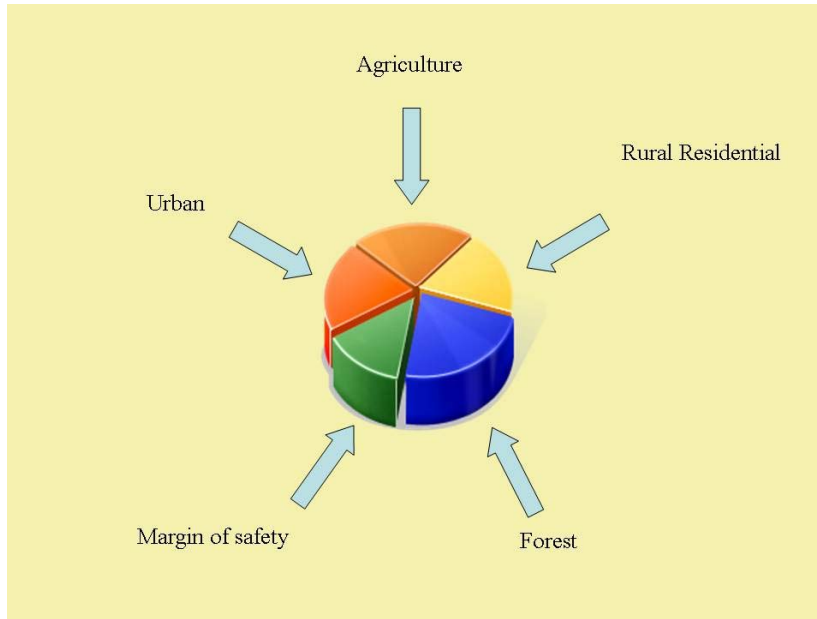
#### **1.1.1 TMDL Responsibility and Regional Cooperation**

DMAs for the Rogue Basin represent the following sectors: urban areas, agriculture, forestry, and rural residential areas. Identified DMAs include Counties, Cities, Irrigation Districts, ODOT, ODA, ODF, and others. Specific responsibilities of each DMA are outlined in Section 1.1.2.

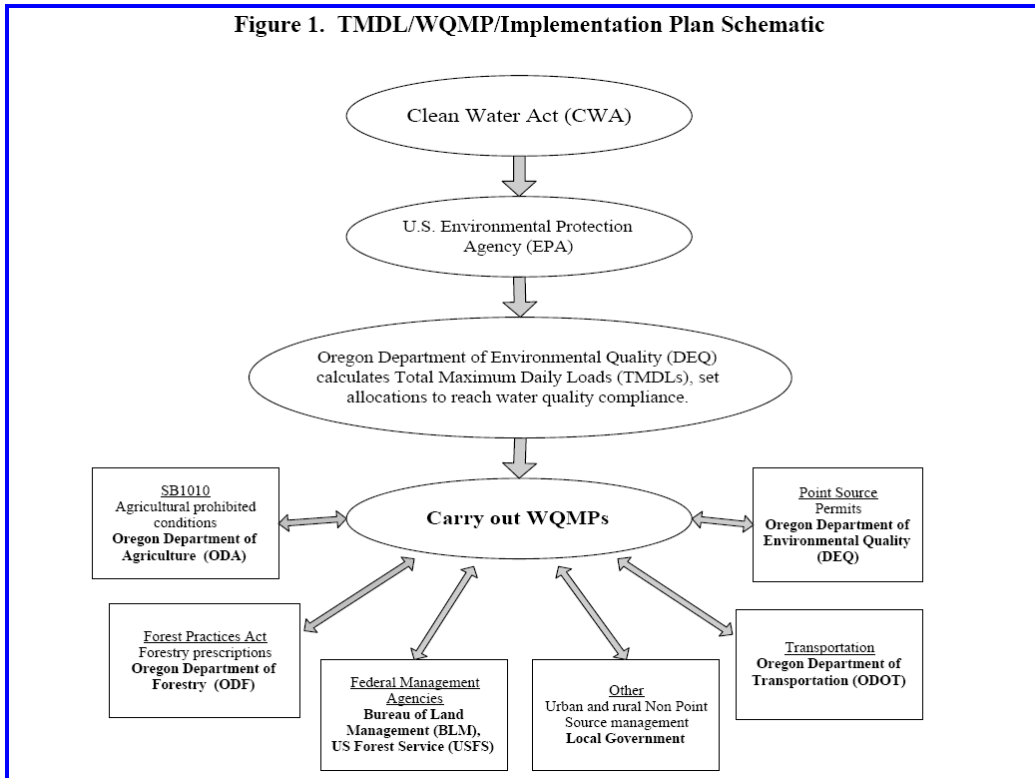
Through the TMDL process, Designated Management Agencies (DMAs) are identified as those entities with the legal authority to ensure that the water quality targets set forth in the TMDL are met for those areas under their jurisdiction to the full extent of their authority (OAR 340-042-0030 (2)). (**Figure 1-2**).

Rogue Basin Water Quality Implementation Plan:  
Urban Jurisdictions and Irrigation Districts

**Figure 1-1: Distribution of TMDL Responsibilities**



**Figure 1-2: Responsibilities of DMAs under the Water Quality Management Plan**



## Rogue Basin Water Quality Implementation Plan: Urban Jurisdictions and Irrigation Districts

Jackson, Josephine and Curry Counties, the Cities of Shady Cove, Butte Falls, Eagle Point, Gold Hill, Rogue River, Cave Junction, Grants Pass, and Gold Beach, Eagle Point Irrigation District (EPID), Rogue River Valley Irrigation District (RRVID), Medford Irrigation District (MID), Gold Hill Irrigation District (GHID), Grants Pass Irrigation District (GPID), other Irrigation Districts and Ditch Associations where appropriate in the Rogue River Basin are included in the “Other” category in Figure 1-2. The DMAs have attended a series of regional collaborative meetings to develop their individual implementation plans. Many of the potential management strategies overlap and the foundation of the WQIPs are the same. Plans have been discussed collaboratively as a region with the Urban DMAs and Irrigation Districts working together. Plans were then refined individually and within groups of DMAs (e.g., irrigation districts).

The overall goal of the plan is to implement actions within in each DMAs jurisdiction to reduce the inputs of temperature and bacteria into local waterways. These actions may be taken either individually or collaboratively. Using a regional collaborative approach where possible, provides a cost effective, consistent approach, and may serve to maximize the effectiveness of the programs in reducing solar inputs, heat, and bacteria contributions to the surface waters in the Rogue River Basin. In addition regional collaboration may allow for the increased leveraging of funding, as well as reducing costs, through the sharing of resources.

### **1.1.2 Responsibilities of Designated Management Agencies as per the Rogue River Basin TMDL (ODEQ, 2008)**

#### **DMA: Oregon Department of Environmental Quality (DEQ)**

##### **Land Use: Various Permitted Sources**

The following permits are issued by DEQ. Contact the DEQ Medford office at (541) 776-6010 for more information.

- NPDES Permitting and Enforcement
- WPCF Permitting and Enforcement
- Municipal Separate Storm Sewer System (MS4) Discharge Permit
- 401 Hydroelectric Certifications
- 401 Dredge and Fill Certifications
- On-Site Septic System Permitting and Enforcement (except where delegated to specific County)
- Nonpoint Source TMDL Implementation Program
- Technical Assistance
- Financial Assistance
- Sewer and septic systems related to human habitation

#### **DMA: Oregon Department of Agriculture (ODA)**

##### **Land Use: Agriculture**

Rogue Basin Water Quality Implementation Plan:  
Urban Jurisdictions and Irrigation Districts

Agricultural land uses are addressed in the *Inland Rogue Agricultural Water Quality Management Area Plan* and the *Curry County Agricultural Water Quality Management Area* as required by Senate Bill 1010. Contact the Oregon Department of Agriculture at (503) 986-4550 for more information regarding agricultural or farm related activities including confined animals feeding operations (CAFOs). The land uses falling under this category include:

- Agricultural or farm-related activities, both commercial and noncommercial including livestock stable and pastures, both inside and outside of municipal boundaries
- Agricultural Water Quality Management Plan Development, Implementation, Enforcement and Revision
- CAFO Permitting and Enforcement
- Container nursery operations
- Technical Assistance
- Rules under Senate Bill (SB) 1010 to clearly address TMDL and Load Allocations as necessary
- Riparian area management
- Oregon Conservation Reserve Enhancement Program

**DMA: Oregon Department of Forestry (ODF)**

**Land Use: Forestry on Private Lands**

Private lands' forestry uses are addressed in the Forest Practices Act. If additional actions are needed to meet the TMDL, ODF may revise statewide FPA rules and/or adopt subbasin specific rules as necessary. Contact the ODF, Southwest Oregon District Office at (541) 664-3328 for more information. The forest management activities covered under the Forest Practices Act are included in the following general categories:

- Harvesting or Salvaging Trees
- Site Preparation and Reforestation
- Chemical Application
- Clearing Forest Land for Nonforest Uses
- Road Construction and Improvements
- Riparian area management
- Precommercial Thinning/Slash Disposal

**DMA: Oregon Department of Transportation (ODOT)**

**Land Use: Roads, Highways and Bridges**

State road issues will be addressed in a Memorandum of Understanding between ODOT and DEQ. Contact ODOT, District Manager at (541) 774-6355 for more information.

- Routine Road Maintenance, Water Quality and Habitat Guide Best Management practices
- Pollution Control Plan and Erosion Control Plan
- Design, Construction, Operation and Maintenance of state highways and state highway storm systems

**DMA's Required to Develop Implementation Plans**

Rogue Basin Water Quality Implementation Plan:  
Urban Jurisdictions and Irrigation Districts

Other DMAs are required to develop TMDL implementation plans that describe the management measures they will take to achieve their load allocations. These DMAs are listed below. TMDL implementation plans must be submitted to DEQ for approval within 18 months from the time this TMDL becomes an executive order. DMAs that wish to may submit a joint TMDL implementation plan. DEQ encourages the development of statewide implementation plans by other state agencies. The required elements of these plans, and the process for monitoring progress under these plans and revising them as necessary, are described in DEQ's TMDL Implementation Plan Guidance.

**DMA: US Army Corps of Engineers (USACE)**  
**Land Use: Lost Creek Reservoir and Elk Creek Dam**

The US Army Corps of Engineers controls all operations related to Lost Creek Reservoir and Elk Creek Dam. Contact the USACE Rogue River Basin Project Manager at (541) 878-2255 for more information.

**DMA: USDI-Bureau of Land Management**  
**Land Use: Federal Lands (BLM administered land)**

In July 2003, the Bureau of Land Management (BLM) signed a memorandum of agreement (MOA) with DEQ defining how water quality rules and regulations regarding TMDLs will be met. BLM will develop or revise existing Water Quality Restoration Plans (WQRPs) as described in MOA, and they will be the TMDL Implementation Plans for BLM. Contact BLM, Medford District Hydrologist at (541) 618-2200 for more information.

**DMA: USDA-Forest Service**  
**Land Use: Federal Lands (National Forests)**

In 2002, the US Forest Service (USFS) signed a memorandum of understanding (MOU) with DEQ defining how water quality rules and regulations regarding TMDLs will be met. USFS will develop or revise existing Water Quality Restoration Plans (WQRPs) as described in the MOU, and they will be the TMDL Implementation Plans for USFS. Contact USFS, District Hydrologist at (541) 858-2200 for more information.

**DMA: Oregon Department of Geology and Mineral Industries (DOGAMI)**  
**Land Use: Aggregate Mining**

DOGAMI's regulation of aggregate mines, many located in the flood plain of rivers, qualifies DOGAMI as a DMA. Contact DOGAMI, Southwest Oregon Section Leader at (541) 476-2496 for more information.

**DMA: Oregon Department of State Land (DSL)**  
**Land Use: Publicly Owned Lands and Removal-Fill Activities**



Rogue Basin Water Quality Implementation Plan:  
Urban Jurisdictions and Irrigation Districts

DSL holds public owned lands in trust and manages these lands in the public's best interests. DSL administers the state's removal-fill permits and is responsible for leasing range and agricultural land and waterways for a variety of business activities. Contact DSL, Jackson/Josephine Resource Coordinator at (503) 986-5250 for more information.

**DMA: Oregon Parks and Recreation Department (PRD)**  
**Land Use: State Park Lands**

Oregon Parks and Recreation Department is responsible for land stewardship, overseeing Oregon scenic waterways, several permit programs, and park plants and animals. Contact PRD, Rogue Valley District Manager at (541) 582-1118 for more information.

**DMA: Irrigation Districts including; Eagle Point Irrigation District (EPID), Rogue River Valley Irrigation District (RRVID), Medford Irrigation District (MID), Gold Hill Irrigation District (GHID), Grants Pass Irrigation District (GPID), other Irrigation Districts and Ditch Associations where appropriate in the Rogue River Basin.**

**Land Use: Irrigation water transport and delivery**

Irrigation Districts control operations related to irrigation water transport and delivery in the Rogue River Basin. Irrigation diversion dams fall under the authority of the designated Irrigation District. Irrigation districts and dam operations are considered nonpoint sources that influence the quantity and timing of heat and bacteria delivery to down stream river reaches. For more information, please contact the appropriate district.

- EPID, (541) 823-3411
- RRVID, (541) 773-6127
- MID, (541) 899-9913
- GHID, (541) 582-1802
- GPID, (541) 476-2582

**DMA: Jackson, Josephine and Curry Counties, Cities of Shady Cove, Butte Falls, Eagle Point, Gold Hill, Rogue River, Cave Junction, Grants Pass, and Gold Beach.**  
**Land Use: Rural/Urban Nonresource Land Uses in the Rogue River Basin**

Rural and urban land uses are under the authority of the designated County/City. The Counties and Cities are responsible for their governmental operations, as well as zoning and permitting, urban runoff and drainage systems, streets and roads, and riparian protection. The land uses include:

- All nonagricultural, nonforestry-related land uses including transportation uses (road, bridge, and ditch maintenance and construction practices)
- Sewer and septic systems as related to human habitation, On-Site Septic System Permitting and Enforcement (where delegated to specific county)
- Designing and siting of housing/home, commercial, and industrial sites in urban and rural areas
- Golf courses and parks
- Land use planning/permitting

Rogue Basin Water Quality Implementation Plan:  
Urban Jurisdictions and Irrigation Districts

- Maintenance, construction and operation of parks and other county/city-owned facilities and infrastructure
- Construction, operation and maintenance of county/city roads and county storm sewer System
- Riparian area management
- Operation of Gold Hill Intake Diversion (Gold Hill), operation of Gold Ray Dam (Jackson County) or other small dams owned by the jurisdiction
- Other land uses as applicable to the TMDL

## **1.2 Background**

### **1.2.1 TMDL Process**

The Federal Clean Water Act (CWA) requires a Total Maximum Daily Load (TMDL) to be established for any waterbody having impaired water quality. The TMDL process begins when a stream, lake, or river does not meet water quality standards and is placed on the State's 303(d) list. The 303(d) list identifies the stream as water quality limited requiring the development of a TMDL. A TMDL determines how much of a pollutant can be discharged to a waterbody while still meeting water quality standards and protecting all designated beneficial uses of that waterbody. The State of Oregon requires identified DMAs to prepare an implementation plan to meet the requirements of the TMDL.

### **1.2.2 TMDL Pollutants: Temperature**

The Rogue River Basin Temperature TMDL identifies the stream segments and river miles within the basin that do not meet current temperatures criteria (DEQ, 2008). The TMDLs applies to all perennial and intermittent streams, rivers, and lakes within the Rogue River Basin in Oregon with the exception of those areas where TMDLs have been previously developed

### **1.2.3 TMDL Pollutants: Bacteria**

The Rogue River Basin Bacteria TMDL identifies the stream segments and river miles within the basin that do not meet the bacteria criteria designated to provide for safe water contact recreation (DEQ, 2008). The TMDL applies to all perennial and intermittent streams, rivers, and lakes within the Rogue River Basin in Oregon with the exception of those areas where TMDLs have been previously developed

## **2.0 POTENTIAL MANAGEMENT STRATEGIES**

The following section provides summary information on general management strategies that may be used for temperature and bacteria as identified in the Rogue River Basin TMDL. Specific management strategies identified for each DMAs is described in detail in the implementation matrixes attached to this document.

### **Temperature**

#### **Near-Stream Vegetation Disturbance/Removal**

##### **Potential Management Strategies/Steps (Tools)**

1. Inventory existing programs and resources. This includes key personnel and departments, staff, existing programs, ordinances, comprehensive plans, and volunteer and watershed organizations conducting similar programs.
2. Identify and inventory key areas to protect and plant.
3. Protect key areas (using ordinances, conservation easements, acquisition, riparian garden program, forestry programs, and buffers).
4. Provide technical assistance, resource guides, and native plants.
5. Develop and/or support riparian planting programs focusing on tributary streams and the Rogue River.
6. Evaluate, expand, and strengthen riparian ordinances as needed.
7. Education and outreach to the community.
8. Training of City Staff.
9. Control invasive species. Develop and/or refine maintenance programs and incorporate planting of natives in place of removed invasives.
10. Identify and partner with existing programs.

#### **Channel Modifications and Widening**

##### **Potential Management Strategies/Steps (Tools)**

1. Inventory existing programs and resources. This includes key personnel and departments, staff, existing programs, ordinances, comprehensive plans, and volunteer and watershed organizations conducting similar programs.
2. Education and outreach to the community.
3. Training of City Staff.
4. Maintenance and operations protocol – roads, bridges, etc.
5. Implement Erosion prevention and sediment control for construction projects.
6. Use low impact development strategies.
7. Promote water conservation to keep more flows instream and reduce heated return flows.
8. Look at methods to keep more water in stream, e.g., the City of Eagle Point purchases industrial and irrigation water rights that have not been allocated to either

Rogue Basin Water Quality Implementation Plan:  
Urban Jurisdictions and Irrigation Districts

the industrial or irrigation use and convert the use to municipal. The conversion process has allowed 1.25 cfs to be added to Little Butte Creek for additional summer water flow.

**Other Anthropogenic Sources**

**Potential Management Strategies/Steps (Tools)**

1. Inventory existing programs and resources. This includes key personnel and departments, staff, existing programs, ordinances, comprehensive plans, and volunteer and watershed organizations conducting similar programs.
2. Education and outreach to the community.
3. Training of City Staff.
4. Maintenance and operations protocol – roads, bridges, etc.
5. Erosion prevention and sediment control for construction projects.
6. Promote the use of methods and practices that reduce urban runoff – Phase II Stormwater management programs, low impact development strategies, best management strategies.
7. Use the Raining Binder to develop programs.

**Bacteria**

**Rural Residential and Urban Lands**

**Potential Management Strategies/Steps (Tools)**

1. Inventory existing programs and resources. This includes key personnel and departments, staff, existing programs, ordinances, comprehensive plans, and volunteer and watershed organizations conducting similar programs.
2. Education and outreach to the community. Focus on proper disposal of pet and animal waste, RV and gray water discharge, and the connection of storm drains and roadside ditches to streams and the Rogue River.
3. Training of city staff.
4. Provide bags for dog owners to pick up pet waste.
5. Work with SWCDs, watershed groups, and Oregon State University Extension to work with rural land owners including farmers and ranchers to manage livestock and other animal waste.
6. Promote water conservation and efficient use of water to reduce the amount of runoff and pollutants including bacteria from entering water ways.
7. Establish and/or refine illegal dumping/illicit discharge detection and elimination programs.
8. Identify best management practices and methods/treatment technologies that reduce bacteria levels in runoff.
9. Identify septic management programs including inspections, requirements, ordinances, staffing, etc. Evaluate and update program as needed.
10. Notify DEQ of failing septic systems when found.
11. Erosion prevention and sediment control for construction projects.

Rogue Basin Water Quality Implementation Plan:  
Urban Jurisdictions and Irrigation Districts

12. Promote the use of methods and practices that reduce urban runoff – Phase II Stormwater management programs, low impact development strategies, best management strategies.
13. Use the Raining Binder to develop programs.

**Potential Management Strategies: Bacteria and Temperature**

The following strategies are general programmatic strategies that address both bacteria and temperature TMDL requirements.

***General Management Strategies:***

1. Develop an outreach strategy that identifies specific outreach/education projects, associated costs and distribution methods to address water quality parameters addressed in the TMDL. Consider regional coordination on some or all educational strategies.
2. Hold, participate in, and/or promote annual water quality events.
3. Participate in regional TMDL meetings.
4. Funding. Evaluate the costs of program implementation each program year and associated sources of funding including staff time, grants, general operating budgets, state clean water revolving loan funds, and other sources.
5. Identify funding opportunities, a strategy, and timeline for acquiring/providing funding.
6. Monitoring. Develop a program and/or use existing programs to track program effectiveness.
7. Reporting. Use the matrix as a template to track implementation plan activities. Submit reports annually.

**3.0 IMPLEMENTATION MATRIX, ADAPTIVE MANAGEMENT, MONITORING, AND REPORTING**

**3.1 IMPLEMENTATION MATRIX**

Attached to this document is the implementation matrix. This document is the WQIP and describes the process and individual steps that the DMA will take to implement the plan and to meet the requirements of the TMDL. The matrix will also serve as the template to facilitate annual reporting.

**3.2 Implementation Monitoring and Reporting**

Each DMA will track TMDL implementation activities (implementation monitoring) and submit an annual report of activities completed using the matrix as a template. Reports will be submitted by September 30<sup>th</sup> for the July through June reporting period.

**3.3 Effectiveness Monitoring**

## Rogue Basin Water Quality Implementation Plan: Urban Jurisdictions and Irrigation Districts

The TMDL Implementation Plan must include a way to assess the effectiveness of implementing the program towards meeting the benchmarks set in the plan in ultimately meeting targeted water quality goals. Existing programs will be used as the basis to track program effectiveness.

### **3.4 Adaptive Management**

A final, vital element to the WQIPs meeting the TMDL requirements is the inclusion of adaptive management. Adaptive management requires that at the end of each 5-year cycle, or at anytime within the 5-year cycle, this WQIP may be amended to address strategies that are not meeting pollution reduction goals or to enhance existing ones as new technologies and/or funding become available. Changes may also be made to accommodate unforeseen challenges in the plan's implementation. As changes are made the DMAs will provide explanation summaries to the Department of Environmental Quality explaining the reason for the alteration request.

### **3.5 Compliance with Land Use Regulations**

All of the strategies outlined will be reviewed to ensure consistency with the DMAs land use plans. The DMAs will evaluate and maintain consistency with local and statewide land use laws in any future actions related to TMDL implementation as required under OAR 340-042-0080(3)(a)(D).

# APPENDICES