



# **Total Maximum Daily Load (TMDL) Implementation Plan**

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ADOPTED BY RESOLUTION 967  
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## **Section One – Introduction**

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This document is the total maximum daily load (TMDL) Implementation Plan for the City of Veneta. This Plan describes the strategies that the City will implement to reduce temperature, bacteria, and mercury pollution in the Upper Willamette subbasin of the Willamette River. Implementation Plans from designated management agencies (DMAs), such as the City of Veneta, are required to comply with the Willamette Basin TMDL order and to help meet pollutant load allocations for the Upper Willamette subbasin as approved by the US Environmental Protection Agency (EPA) in September 2006.

This plan is organized into five sections. This first section introduces the Plan followed by the second section which gives a brief overview of the TMDL program, describes each of the three major pollutants addressed in the Willamette Basin TMDL (Temperature, Bacteria, and Mercury), and explains the region's water resources, land use, and important issues related to water quality. Section three provides an overview of the City of Veneta, explains what the City of Veneta is currently doing to address water quality issues, and points out where gaps exist in addressing TMDL parameters. Section four is the "core" of this Implementation Plan and portrays what the City plans to do to address TMDL issues. The matrix included in this section clearly displays when and how strategies will be implemented. This section also identifies how effective implementation will be measured. The final section identifies and outlines opportunities within the Willamette Headwaters region to join efforts with other jurisdictions in working to reach water quality goals.

The overarching goal of this Implementation Plan is to minimize or, wherever possible, eliminate heat, bacteria, and mercury contributions to surface waters within the jurisdictional control of the City of Veneta. Through a multi-faceted approach of land use mechanisms, public operations, partnerships, and education this plan targets specific sources of contamination within our jurisdiction.

## Section Two – Background

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Water resources are essential to protecting the future health and prosperity of the Willamette Valley. The Oregon Department of Environmental Quality (DEQ) has set water quality standards for the waterways in the region to protect beneficial uses such as drinking, fishing, swimming, fish spawning, and irrigation. Streams, lakes, and rivers that do not meet these standards are included in the statewide 303(d) list of impaired waterbodies.

The Clean Water Act of 1977 “authorizes the U.S. Environmental Protection Agency (EPA) to ‘restore and maintain the physical, chemical, and biological integrity of all waters of the nation’ (DEQ, 2004). In response to the Clean Water Act, the EPA designated state agencies to develop water quality standards, perform water quality monitoring to understand current conditions, determine sources of pollution, and develop TMDLs as a tool to improve water quality. As a component of the overall effort to protect and restore the beneficial uses of Oregon’s waterbodies, the DEQ is issuing TMDLs for the entire Willamette Basin.

The TMDL process begins when a stream, lake, or river does not meet water quality standards and is classified as water quality-limited on the state’s 303(d) list. TMDLs identify the maximum amount of a specific pollutant that can be present in a water body without violating water quality standards. This is known as the loading capacity. After extensive water quality monitoring and modeling efforts, TMDLs establish the difference between the loading capacity and the current pollutant load. TMDLs are expressed as numeric standards or percent pollutant reductions that need to be met to bring water bodies into compliance with water quality standards. The difference between the current load and the loading capacity is known as excess load (DEQ, 2004)

The excess load is split up between the different sources of pollution according to their contribution to the overall pollution load. Any difference between the waterway’s loading capacity and the current pollutant load must be mitigated by pollution reduction activities. The DEQ develops wasteload allocations for point sources such as wastewater treatment plants and industrial discharges. They develop load allocations for non-point pollution from agricultural, urban, and forestry lands such as erosion, animal wastes, and stormwater.

The Oregon Administrative Rule (OAR 340-042-0025) that addresses TMDLs requires local governments and other agencies to develop TMDL Implementation Plans. Responsible parties that are able to implement pollution reduction strategies are classified as Designated Management Agencies (DMAs). In the Willamette Basin, DMAs include federal agencies such as the Bureau of Land Management, state agencies such as the Department of Forestry and the Department of Agriculture, counties, cities, and others. According to OAR 340-042-0025, TMDL Implementation Plans must include the following five elements:

1. Management strategies that will be used to achieve load allocations
2. A timeline and schedule to achieve measurable milestones

3. A plan for periodic review and revision of the implementation plan
4. Evidence of compliance with applicable statewide land use requirements
5. Any other analyses or information as specified in the Water Quality Management Plan

In the Willamette Basin, DMAs are to develop and submit these plans to the DEQ within 18 months after the release of the final TMDLs. On September 21, 2006, the Willamette Basin TMDL was issued as an order by the DEQ. TMDL Implementation Plans are due on April 1, 2008.

The Oregon Department of Agriculture (ODA) is working with farmers to address contributions from farmland, the Oregon Department of Forestry is addressing contributions from forestland, and federal land management agencies are implementing TMDLs according to their internal procedures. Point sources, such as wastewater treatment facilities will be addressed through their individual permitting processes. Cities and counties must address contributions through the development of Implementation Plans.

The Lane County portion of the Willamette River Basin includes the McKenzie, Middle Fork, Coast Fork subbasins and the southern portion of the Upper Willamette subbasin. Within this headwaters region, there are eleven local government DMAs including Lane County and ten cities. This document is the Implementation Plan for the City of Veneta which lies within the Upper Willamette subbasin.

### **TMDL Parameters**

Temperature, bacteria, and mercury are the three parameters that have been included in all of the Willamette Basin TMDLs. Although other parameters are included in subbasin TMDLs, these three pollutants are the major concerns throughout the entire Willamette Basin.

Following are brief summaries of these three TMDL parameters, but more in-depth information on these parameters and the processes used to develop the TMDLs can be found in Chapters 2, 3, and 4 of the *Willamette Basin TMDL* (DEQ, 2006). The summaries below include basic information about the characteristics of the parameter, the potential sources of each pollutant, waterways in the region not meeting water quality standards, and a brief list of potential strategies to address each parameter.

#### *Temperature*

Surface waters within the Willamette Basin are often too warm at certain times of year posing a threat to cold water fish species such as salmon, cutthroat trout, and others. This is known as thermal pollution. Removal or disturbance of streamside vegetation is the primary activity that negatively impacts stream temperature due to the loss of shade cover, but water temperature is also affected by erosion, loss of channel complexity, low streamflows, dams, and heated discharges from industrial or municipal operations.

The major sources of thermal pollution that the DEQ evaluated for the Willamette Basin temperature TMDLs are wastewater treatment facilities, dam and reservoir operations, and the loss of streamside vegetation. Point sources will continue to be regulated through the existing National Pollution Discharge Elimination System (NPDES). Sewage treatment plants, as well as large industrial permitted discharges, will be allocated heat loads during the next renewal of their NPDES permits.

The focus of the non-point source temperature TMDL is to mitigate the removal or disturbance of streamside vegetation. The most effective way to minimize thermal pollution is by reducing the amount of solar radiation that reaches the water. This is accomplished by protecting and reestablishing vegetation along waterways to provide shade cover. Temperature benefits can also be realized through stream restoration projects including streambank stabilization, increasing stream flows, decreasing channel width, and restoring channel complexity.

Temperature TMDLs have been developed for the Willamette subbasins and mainstem Willamette River within Lane County. The DEQ used two different approaches in developing the temperature TMDLs. One TMDL focuses on the mainstem Willamette River and its major tributaries up to the first dam. Using the other approach, the DEQ developed TMDLs on a more localized scale for stream segments upriver from dams.

There are 46 stream segments, nearly 380 miles of waterways (DEQ, 2002), listed as impaired for temperature in the Lane County portion of the Willamette Basin. Stream segments considered as a part of the Mainstem Willamette temperature TMDL in Lane County are the McKenzie River, Middle Fork, Fall Creek, Row River, Blue River, Coast Fork, and the Long Tom River up to the lowest reservoir on each river. All other 303(d) listed stream segments are assessed through sub-basin TMDLs.

The City of Veneta is located in the Upper Willamette subbasin, 13 miles west of Eugene. The City sits amidst the foothills of the Coast range. None of the waterbodies in close proximity to Veneta are out of compliance with temperature standards.

The maximum temperature increase in the waters of the state from all human activities can be no more than 0.3 degrees C. This was designated by the State of Oregon in Oregon Administrative Rule 340-041-0028. In the TMDLs, this allowance is known as the Human Use Allowance and is split up between various sources of human-caused thermal pollution. Models indicate that restoring shade cover to natural levels could reduce temperatures in the mainstem Willamette River by 0.7 degrees Celsius (DEQ, 2004).

The major implication of the temperature TMDLs is the protection and restoration of streamside vegetation. Examples of options to address thermal pollution include mechanisms such as:

- Develop materials that explain why landowners should preserve natural streamside vegetation
- Implement demonstration projects on public land to illustrate potential riparian management techniques
- Institute a riparian ordinance that prohibits the removal of native streamside vegetation
- Acquire critical streamside property

- Become involved in a water quality trading program
- Promote active restoration of degraded riparian areas

### *Bacteria*

Jurisdictions in the Upper Willamette subbasin are facing unique problems related to the high levels of bacteria in the waterways. The DEQ reports that the Long Tom River increases bacterial concentrations in the mainstem of the Willamette River by 77 percent (Willamette Basin TMDL, 2004).

The Long Tom River, Fern Ridge Reservoir, and Coyote Creek are not meeting water quality criteria for bacteria (fecal coliform). For this reason, Veneta and other cities in the Upper Willamette subbasin should focus their efforts on reducing bacteria levels. The Upper Willamette Basin TMDL calls for reductions of 80 – 94 percent from urban sources of bacteria.

The major sources of bacteria in the urban and rural residential areas are stormwater runoff, erosion, domestic and wild animal waste, failing septic systems, and municipal sewer overflows. Other sources of bacteria include livestock, irrigation runoff, and streambank erosion.

Local jurisdictions can focus on urban issues to ensure that the quality of water does not degrade due to current land use, population growth, and land use changes. Strategy options to address bacteria in our urban area include:

- Preventing erosion and controlling sediment from new construction
- Detaining and treating stormwater prior to discharge into waterways
- Keeping stormwater conveyance channels clear of organic matter
- Controlling animal waste
- Maintaining and restoring riparian buffers
- Encouraging better site design to decrease runoff
- Preventing non-stormwater and illegal discharges
- Developing stewardship and educational programs to prevent pollution
- Street sweeping

### *Mercury*

Mercury is a very complex pollutant. The way it acts in nature and the different forms it takes make it difficult to understand and accurately monitor. With no regard to local, state, or even international boundaries, mercury can be transported in the air after soil disturbance, automobile emissions, and industrial emissions across many miles and deposited by rainfall. Air deposition from emissions is one of many ways that mercury moves through the environment. Some point sources, including timber processing plants and mills, discharge low levels of mercury in their wastewater effluent. Stormwater runoff suspends mercury molecules and carries them to waterways. Mercury is naturally occurring at low levels, but when native soil erodes at an accelerated rate those molecules are released in abnormal amounts. Mercury is also set in motion when sediment that has been deposited long ago is re-suspended due to high flows or a significant disturbance.

High mercury levels in the Willamette Basin have resulted in fish consumption advisories. To protect public health, especially that of pregnant women and young children, the Department of

Human Services (DHS) has issued advisories recommending that people limit the amount of fish they consume from certain waterways. The DHS specifically advises against consuming large amounts of fish from the Willamette River, Coast Fork Willamette River, Dorena Reservoir, and Cottage Grove Reservoir due to the high levels of mercury.

Table 1: Willamette Basin Mercury TMDL Sources and Reductions Needed

Pollutant	Sources	Reductions
Mercury	<b>Willamette Basin*</b>	
	▪ Erosion from farm and forest land (50.2%)	Willamette Basin: 26.4% (142.2 to 104.7 kg/year)
	▪ Atmospheric deposition and runoff, including stormwater (43.6%)	
	▪ Point sources (3.9%)	
	▪ Legacy mines (2.3%)	
	▪ Low levels are naturally occurring	
	<b>Dorena Lake</b>	
	▪ Atmospheric deposition and runoff (79.4%)	Dorena Lake: 29.8% (.38 to .27 kg/year)
	▪ Erosion from disturbed forest land (20.1%)	
<b>Cottage Grove Lake</b>		
▪ Mines (75.2%)	Cottage Grove: 67.8% (.93 to .31 kg/year)	
▪ Atmospheric deposition and runoff (19.0%)		
▪ Erosion from disturbed forest land (5.8%)		

\* Annual mean estimate. Mercury load contributions change significantly during winter high flows. During high winter flows, 66% of the load is from sediment re-suspension, 0.8% from mines, 1.4% from point sources, 17.1% from erosion, and 14.7% from air deposition.

Source: Department of Environmental Quality, DRAFT Willamette Basin TMDLs, 2004

Despite the uncertainty and complex nature of mercury, there are steps that can be taken to minimize the amount of mercury that is deposited in our waterways and accumulated in the tissues of fish, wildlife, and humans. The goal of the mercury TMDL is “to reduce mercury levels in the basin to a point where fish are no longer unsafe to eat” (DEQ, 2006).

To begin addressing the mercury problem in the Willamette Basin, the DEQ has developed interim allocations for point sources and non-point sources while they conduct more in-depth research. Instead of specific allocations, the DEQ calculates the interim mercury TMDLs based on two categories: non-point and point sectors. The DEQ expects all non-point sources to begin implementing mercury reduction management strategies and policies. The TMDL will be revised in the future to be more specific according to the results of further research.

Implementation plans must include a mercury reduction strategy “that includes feasible measures to minimize mercury runoff” (DEQ, 2006). DMAs have an array of options to reduce mercury pollution. Many of the management strategies that address mercury pollution also address bacteria and temperature. Potential management strategies include:

- Working with dentist offices to properly dispose of mercury wastes
- Establishing a stormwater master plan
- Stormwater detention and treatment prior to discharge into waterways
- Establishing an erosion prevention and sediment control program
- Regular street sweeping and stormwater system maintenance

- Limiting land disturbance whenever possible

*Summary*

The table below summarizes the parameters addressed in the Willamette Basin TMDL, the major sources of that pollutant, and reductions needed to meet water quality standards.

Table 2: Willamette Basin TMDL Parameters, Sources and Reductions Needed

Parameters	Sources	Reductions
Temperature	▪ Streamside vegetation removal	Willamette Basin: Varies
	▪ Wastewater discharge	
	▪ Industrial point sources	All Subbasins: Average of 23%
	▪ Channel modification	
	▪ Water extraction	
	▪ Disruption of seasonal cooling and warming patterns	
	▪ Dam and reservoir operations	
Bacteria	▪ Stormwater discharge	Urban: 80 - 94%
	▪ Construction site erosion and runoff	
	▪ Failing septic systems	
	▪ Illegal discharges	Agricultural: 66 – 83%
	▪ Wastewater treatment plants and other point source treatment failures	
	▪ Sewer overflows during wet weather	
	▪ Surface runoff	
▪ Animal wastes		
Mercury	▪ Erosion from urban, farm, and forest land	Willamette Basin: 26.4%
	▪ Construction site erosion and runoff	
	▪ Atmospheric deposition and runoff, including stormwater	Dorena Lake: 29.8%
	▪ Other (dentist offices, fluorescent light bulbs, etc.)	
	▪ Point sources	
	▪ Legacy mines	Cottage Grove: 67.8%
	▪ Naturally occurring	
▪ Mines		

Source: Department of Environmental Quality, Willamette Basin TMDLs, 2006

**Upper Willamette Subbasin**

The Lane County portion of the Willamette Basin could be considered the Headwaters region of the entire Basin because it forms the southernmost, furthest upstream area of the Basin. There are four subbasins within the Headwaters region. Understanding the characteristics and unique issues in the Upper Willamette subbasin as well as the other subbasins assists in coordinating efforts and identifying opportunities for the region as a whole.

The Upper Willamette subbasin crosses many political boundaries and contains a number of different land uses. The Lane County boundary covers the southernmost third of the subbasin with the rest of the land extending northward into Linn, Benton, and Polk counties. The majority of the land in the Lane County portion of the Upper Willamette subbasin is within the Long Tom watershed boundary.

The eastern edge of the subbasin contains some urban lands in west Eugene. Amazon Creek and its associated channels drain this urban area into Fern Ridge Reservoir and the Long Tom River. Veneta, Coburg, and Junction City are the other major incorporated areas in the Lane County portion of this subbasin. Coburg and Junction City are close to the mainstem Willamette River, but have no jurisdiction over lands directly adjacent to the river. There are eleven small, but densely populated, unincorporated rural communities scattered throughout the Lane County portion of this subbasin. Forested land is predominant from the foothills to the crest of the Coast Range along the western edge of the subbasin. A number of small farms exist in the areas where foothills give way to the valley floor.

TMDLs have been developed for temperature, bacteria, dissolved oxygen, and turbidity in the Upper Willamette subbasin. The Long Tom River downstream of the Fern Ridge Reservoir is listed for temperature and is addressed through the mainstem Willamette temperature TMDL. The only three waterways listed for temperature that are not included in the mainstem Willamette temperature TMDL in the Lane County portion of the Upper Willamette subbasin are Ferguson Creek, Muddy Creek, and Coyote Creek. These stream segments exceed the temperature standards for salmonid fish species migration and rearing.

Five stream segments in the Upper Willamette subbasin and the Fern Ridge reservoir do not meet bacteria water quality standards. Since this subbasin contains 303(d) listed streams for bacteria, the DEQ has determined specific load allocations, not just planning targets, which must be met to bring these waterbodies into compliance. The Upper Willamette TMDL separates the subbasin into smaller watersheds and calculates percent reductions for each land use.

Forestland is not a significant source of bacteria so reductions have not been assigned to forestlands. The DEQ has established specific bacteria reductions for urban and agricultural land uses in the Upper Willamette subbasin. Urban areas must reduce bacteria contributions by 80 to 94 percent. This can be accomplished through stormwater management, erosion control, animal waste management, and many other methods. More in-depth information can be found on pages 50-88 in the Upper Willamette Subbasin TMDL.

The Upper Willamette subbasin TMDL also includes the dissolved oxygen TMDL for Coyote Creek and the Amazon Diversion Channel and the turbidity TMDL for Fern Ridge Reservoir. Many of the strategies that address bacteria, mercury, and temperature will also help improve turbidity and dissolved oxygen conditions in these waterways.



## **Veneta**

The City of Veneta is located in the Upper Willamette subbasin, 13 miles west of Eugene. The City sits amidst the foothills of the Coast range. Veneta is bordered by Coyote Creek, approximately 6 miles to the east, the Long Tom River, immediately northwest of the Urban Growth Boundary, and Fern Ridge Reservoir and unnamed tributaries to the north and east.

The population of Veneta has been growing steadily over the past six years going from 2,762 in 2000 to an estimated 4,240 in 2006. With a recent annual population growth rate of over 7% per year, the City is trying to plan and construct infrastructure to meet the growing demand for services.

This increase in development intensity has adverse impacts to water quality including increased impervious surface areas which contribute more and different pollutants through changes in land use and the associated increase in runoff and loss of infiltration capacity. Development may also impact wetlands and riparian areas that provide critical ecological functions by filtering pollutants out of surface water prior to discharging into water bodies and providing riparian shading along temperature-impaired waters. In addition, without adequate preventative measures, development in and near the floodplain, wetland areas, and intermittent drainageways may limit habitat restoration opportunities and implementation of best management practices needed to help meet TMDL requirements. However, by implementing the strategies contained in this plan, the City of Veneta hopes to greatly reduce adverse impacts to water quality within its jurisdiction. This plan will be reviewed periodically to ensure that the protective mechanisms suggested are indeed addressing the impacts of additional growth within the City of Veneta.

Map Two displays an air photo of the City of Veneta. The air photo shows the wetland streams that flow from the southern portion of the city northeast to Fern Ridge Reservoir. Wetlands to the northwest are part of the floodplain that includes the Long Tom River, which comes close to the northwest corner of the city. This map can be used to identify specific areas that have high restoration or protection potential.

Map Two – Aerial Photo of City Limits/Urban Growth Boundary with Significant Wetlands  
(map too large to email)

## Section Three – Water Resource Assets and Gaps

The City of Veneta is already doing many things to protect and restore water quality. Additional actions are identified in this Implementation Plan that will continue to protect waterways and prevent further water quality degradation.

Along with other jurisdictions in Lane County, the City of Veneta completed a *Gaps Analysis Worksheet* (see Appendix One) to initiate the information gathering and planning process necessary to meet TMDL requirements. The analysis of this comprehensive inventory of water quality related programs and policies helped identify where both assets and gaps exist. The worksheet provides a mechanism to:

1. Develop a record of all water quality-related activities currently underway in the City of Veneta.
2. Utilize this record of activities to identify water quality protection assets and gaps
3. Prioritize efforts to fill gaps for the City of Veneta
4. Identify opportunities and commonalities with other jurisdictions in Lane County

### Assets

There are currently many water quality efforts underway in the City of Veneta. In 2001, the City spent \$7.23 million to upgrade their wastewater infrastructure. The City has undertaken a major stormwater planning effort, completed a wetland inventory process, and implemented a regulation that requires drainage detention basins in new developments.

Table 4: City of Veneta Existing Water Quality Related Program and Policy Inventory

<b>Programs, Ordinances, and Practices</b>
<ul style="list-style-type: none"><li>• Inflow and Infiltration work budgeted annually to improve water quality.</li><li>• Erosion control required for public improvements.</li><li>• Tree preservation criteria as part of development review.</li><li>• Stormwater Master planning begun.</li><li>• Detention standard adopted to slow stormwater runoff from all new impervious surfaces.</li><li>• Greenway overlay zone adopted that protects 50 feet from wetland boundaries.</li><li>• Animal waste matter ordinance adopted.</li><li>• Illegal dumping into the storm system prohibited by ordinance.</li></ul>

### Gaps

As a result of existing water quality programs and activities, many water quality protection improvements have been made. Specific water quality gaps have been identified through the gaps analysis and a review of related water quality materials including the Willamette Basin TMDLs. Analysis of existing policies and programs indicates that the City of Veneta should focus on strengthening the mechanisms designed to minimize erosion and to increase public education about water quality. Some aspects of these efforts can be integrated into stormwater planning as well as other existing plans and programs.

The level of priority for actions in Table 5 was determined by comparing the inventory of existing water quality-related programs and policies to the strategies identified in the DEQ's

Water Quality Management Plan. Priority rating also considers the fact that bacteria is the most prevalent pollutant in the Upper Willamette subbasin. The table below outlines the focus areas that are of special concern for the City of Veneta. The table assigns a high, medium, or lower priority to seven major focus areas using the methodology described above.

Table 5: Pollutant Reduction Focus Areas for the City of Veneta

Strategy Category	Priority Rating
<b>Erosion Control</b>	High
<b>Education/ Training</b>	High
<b>Stormwater Planning and Management</b>	High
<b>Wastewater Management</b>	Medium
<b>Animal Waste Management</b>	Medium
<b>Restoration</b>	Low

## **Section Four – Implementation Strategies**

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The City of Veneta compared the results of the gaps analysis with potential actions to minimize pollutants of concern. The lists of potential actions that are considered are included in Appendix Two. To reduce contributions of bacteria, temperature, and mercury, the City of Veneta will pursue eight major water quality protection actions. Following is an overview of the actions categorized by focus areas.

### *Erosion Control*

The goal for the City of Veneta is to reduce the erosive action of runoff and the amount of sediment being transported from all public and private construction sites during and after construction. Currently, the City of Veneta requires erosion control as part of the public improvement process. The City Engineer reviews plans for erosion control along with grading plans and, since most subdivisions cause ground disturbance of over one acre, a 1200C permit is required by the Department of Environmental Quality (DEQ).

The City's goal is to find a way to require erosion control for new construction or reconstruction of buildings outside of the public improvement process. Usually individual lots are smaller than one acre and do not require a DEQ permit, and our City Engineer does not oversee or inspect projects beyond the public improvements. The challenge for the City of Veneta is staffing. Erosion control requires someone knowledgeable to review proposed plans and inspect and enforce the implementation of these techniques.

One solution might be to revise the building permit review process to include providing the builders with a copy of the 1200C plan for the subdivision and working with DEQ to see if each lot within the subdivision is subject to the plan. Another option to investigate is whether the City's contract building inspection service might be interested in providing erosion control services, since their customers are small cities like Veneta. Other small cities might have the same need for service. The third option would be to find money to hire an erosion control specialist. Erosion control is predominantly a seasonal need and the position would have to include other duties which, in turn, may require differing areas of specialty for one position. To use a seasonal worker, and re-train every year would be impractical.

### *Education/Training*

For animal waste, the City plans to educate its residents about bacterial water contamination by partnering with other jurisdictions in the same media market. The City of Veneta is located in close proximity to the Eugene/Springfield metropolitan area and benefits from any radio or other media attention to this issue. In addition the City of Veneta has found that many larger cities that have staff creating brochures or signage are often willing to share.

Erosion control education can be accomplished by providing information to builders with a fact sheet included with their building permits. Fact sheets can also be used to inform new homeowners adjacent to wetlands about the benefits and responsibility to protect this resource, as well as to educate homeowners with septic systems about the need for maintenance.

The City plans to use its current outlets of communication as well for public education, such as its web site and timely news releases to the local newspaper.

#### *Stormwater Planning and Management*

Stormwater planning and management is a high priority for the City's TMDL efforts. The City recognizes that actions taken to manage stormwater will reduce pollutants.

The City of Veneta revised its Greenway – Open Space Subzone in April, 2006. This subzone provides a buffer of 50 ft. from the edge of significant wetlands. This buffering is intended to:

1. Protect and enhance water quality;
2. Meet State and Federal water quality standards;
3. Prevent property damage during floods and storms;
4. Reduce pollution and runoff;
5. Protect native plant species, and fish and wildlife habitats;
6. Conserve scenic and recreational values of open areas, including stream enhancement.

The City is also in the process of producing a new stormwater master plan that will incorporate water quality protection mechanisms and propose capital projects for water quality. This will ensure that future stormwater system expansions and upgrades are designed and constructed with water quality considerations in mind. This plan will also include a map of the stormwater system that will aid decision-making about where to focus water quality protection activities.

Stormwater Best Management Practices (BMPs), similar to those required in the City of Portland Stormwater Management Manual, are considered for Veneta. These BMPs would be required for new development and re-development and would provide water quality treatment of runoff from impervious surfaces.

#### *Wastewater Management*

Inflow and Infiltration (I&I) is a problem for water quality when sewage destined for the wastewater treatment facility escapes the collection system. The City has and will continue to budget for work on an annual basis to keep I&I to a minimum.

Connecting those homes still on septic systems within the City's identified service area is another goal for improving water quality within the City limits. Communicating with those homes outside the service area, but within the City's limits, about servicing and properly maintaining their septic systems is also important.

#### *Animal Waste Management*

The City of Veneta will bolster the existing pet waste pick-up ordinance by encouraging compliance and attempting better enforcement. We have installed at least four pet waste pick-up stations in public areas. The stations include signs and are stocked with bags. News releases accompanied the installation of the new stations to encourage citizens to use them. Following installation of these stations, the City will increase their efforts to enforce the existing ordinance.

*Restoration*

The City of Veneta plans to partner with the Long Tom Watershed Council on a sub-basin stream enhancement project. With the help of the watershed council, the City would like to apply for a grant that would restore and enhance water quality within the City's limits.

**Implementation Matrix**

The following matrix details the strategies that will be implemented within the next five years. Some of these strategies will be pursued only if funding allows. The matrix displays the pollutant being addressed, the strategy to address it, when that strategy will be implemented, and how we will measure progress and successful implementation. This matrix will also serve as a tracking tool for annual reporting to the DEQ.

**TMDL Implementation Tracking Matrix**

<b>POLLUTANT</b>	<b>SOURCE</b>	<b>STRATEGY</b> What we are doing and will do to reduce pollution from this source	<b>ACTIONS</b> Specific ways to implement strategies	<b>MEASURE</b> How we will track successful implementation or completion	<b>TIMELINE</b>	<b>BENCHMARK</b> Intermediate Indicators	<b>STATUS</b>
<b>Bacteria</b>	1. Pet and animal waste	Inform residents about bacterial water contamination including pet waste disposal by partnering with other jurisdictions in the same media market. Also distribute DEQ brochures on this topic.	<b>Short term:</b> Partner with City of Eugene for radio spots and signage design.  <b>Long term:</b> Ongoing education to reinforce message	Number of signs and radio spots.	On-going	<b>Short term:</b> Heightened public awareness related to these issues  <b>Long term:</b> Public awareness into the future.	
		Install pet waste signs in public areas		Number of signs.	Ongoing		
		Place receptacles for bags to encourage pet waste clean-up in local parks and trails.		Use of bags	2007		
	2. Stormwater BMPs	Adopt stormwater best management practices for water quality, similar to Portland's BMP manual, which would address water quality in new development and re-development.	Review of Portland and Eugene's version by staff and consulting engineer. Revise if anything specific for Veneta needs to be changed. Hold public hearings with Planning Commission and City Council. Council adoption.	Best management practices adopted.	Completion: Approximately 2009.	<b>Short Term:</b> Review of existing manuals by staff. <b>Long Term:</b> Adoption of the manual.	
		Complete Stormwater Master Plan, add water quality capital projects to CIP, and incorporate the City's drinking water protection area into the plan. Basin assessment and planning will be done sequentially in phases based on known and potential problem areas throughout the City.	Hire consultant to do hydrologic and hydraulic studies on Veneta's storm system. Once the studies are complete, the consultant will identify capital improvements for water quality.	Stormwater CIP includes water quality capital improvement projects and timelines.	First phase of Stormwater Master Planning to begin in February, 2007.  All phases may be completed in 5 years.	<b>Short Term:</b> First phase completed in CY 2007. <b>Long Term:</b> Completion of last phase, addition of capital projects to stormwater capital projects list, and provide funding for construction of capital projects.	
	3. Septic Systems	Build out of WW collection system to the current service area of the City to connect those still on septic.	Form Local Improvement Districts to extend sewer main.	All homes within the identified service district will be connected to the City's wastewater treatment plant and septic abandoned. All septic owners have received educational materials.	Ongoing. Wider service area will be identified in the next year or two.	<b>Short Term:</b> The service area outlined in the 1998 Wastewater Facilities Plan will be served. <b>Long Term:</b> The service area for sewer will be extended to the eastern portion of the City.	
		Send educational material to septic owners about proper care and maintenance to protect drinking water.	Contact DEQ about educational materials.				
	4. Inflow and Infiltration	Keep infiltration and inflow of the city's wastewater system to a minimum	Budget and complete I&I projects annually.	Money budgeted and projects completed	Ongoing		
	5. Erosion and sedimentation	Erosion control now required for public improvements. Consider adding specific erosion control requirements (e.g. silt fences, mulching, seeding, avoid excavation during wet times) to development code for new construction/reconstruction of buildings.	Investigate the possibility of the building inspector taking on the review of erosion control plans and inspection of controls during construction of the building or whether we need to add staff.	Feasibility study completed. Action taken to update code if staffing can be found to do the monitoring and enforcement.	Begin in 2008. Feasibility determined in 2008.	Erosion Control requirements adopted by the City	
		Hold individual lots created as part of a larger subdivision to the 1200C erosion control plan.	Revise building permit review process to include providing builder with a copy of the 1200C plan.	Staff reports plans have been included for builders.	Begin in 2008 and continue on an ongoing basis.	Receive 1200C plans from DEQ or builder.	
		Provide information to builders about the 1200C Program.	Include fact sheet from DEQ with building permits.	Staff reports fact sheets have been included for builders.	Begin in 2008 and ongoing after that.		
		Revise tree code to include mitigation and collection of fees for mitigation.	Mitigation for trees cut, with public property used for some replanting.	Number of trees planted through mitigation funds.	Begin 2007 and complete in 2008.	Code revisions adopted in 2007.	

TMDL Implementation Tracking Matrix

POLLUTANT	SOURCE	STRATEGY What we are doing and will do to reduce pollution from this source	ACTIONS Specific ways to implement strategies	MEASURE How we will track successful implementation or completion	TIMELINE	BENCHMARK Intermediate Indicators	STATUS
Mercury	1. Erosion and sedimentation	Erosion control now required for public improvements. Consider adding specific erosion control requirements (e.g. silt fences, mulching, seeding, avoid excavation during wet times) to development code for new construction/reconstruction of buildings.	Investigate the possibility of the building inspector taking on the review of erosion control plans and inspection of controls during construction of the building or whether we need to add staff.	Feasibility study completed. Action taken to update code if staffing can be found to do the monitoring and enforcement.	Begin in 2008. Feasibility determined in 2008.	Erosion Control requirements adopted by the City	
		Hold individual lots created as part of a larger subdivision to the 1200C erosion control plan.	Revise building permit review process to include providing builder with a copy of the 1200C plan.	Staff reports plans have been included for builders.	Begin in 2008 and continue on an ongoing basis.	Receive 1200C plans from DEQ or builder.	
		Provide information to builders about the 1200C Program.	Include fact sheet from DEQ with building permits.	Staff reports fact sheets have been included for builders.	Ongoing		
	2. Stormwater BMPs	Adopt stormwater best management practices for water quality, similar to Portland's BMP manual, and require water quality in new development and re-development.	Review of Portland and Eugene's version by staff and consulting engineer. Revise if anything specific for Veneta needs to be changed. Hold public hearings with Planning Commission and City Council. Council adoption.	Best management practices adopted.	Completion: Approximately 2009.	<b>Short Term:</b> Review of existing manuals by staff. <b>Long Term:</b> Adoption of the manual.	
		Complete Stormwater Master Plan and add water quality capital projects to CIP	Hire consultant to do hydrologic and hydraulic studies on Veneta's storm system. Once the studies are complete, the consultant will identify capital improvements for water quality.	Stormwater CIP includes water quality capital improvement projects and timelines.	First phase of Stormwater Master Planning to begin in February, 2007.  All phases may be completed in 5 years.	<b>Short Term:</b> First phase completed in CY 2007. <b>Long Term:</b> Completion of last phase, addition of capital projects to stormwater capital projects list, and provide funding for construction of capital projects.	
		Train parks and public works employees about maintenance practices for water quality improvements.	Seek training for maintenance employees in conjunction with other jurisdictions.	Number of employees trained	Begin 2008.  Ongoing training.	Trained employees	
		Ensure protection of riparian areas	Adopt policies that define how riparian areas are marked and enforce encroachments by neighboring property owners (riparian protection overlay zone of 50 ft on each side of wetland in place)  Update tree protection ordinance to clarify standards for removal.	We see encroachment, possibly due to lack of signage or understanding. Adopt signage requirements for developers and take steps to check on sign placement and encroachment.	Riparian area sign standards adopted by Council. Proposals to address staffing issue with monitoring and enforcement of encroachment issues.	Begin 2009, sign standards adopted in 2010.	<b>Short Term:</b> Adoption by Council.  <b>Long Term:</b> Enforcement in place.
Education	Wetland brochure to send to new move-ins adjacent to wetlands.	Create an educational brochure and put process in place for distribution to new move-ins.	Brochure printed and staff process in place for distributing.	Begin 2007. Completed 2007.	Brochure available.		
	Wetland workshops.	Partner with neighborhood group. Hold meetings in neighborhoods of homeowners with wetlands.	At least one neighborhood meeting held.	Begin 2009. Complete 2010.	Presentation created.		
Restoration	Partner with the Watershed Council on a sub-basin stream enhancement project.	Apply for small grant with the help of the Watershed Council.	Stream enhancement project completed.	Begin 2008. Complete 2009-2011.	Grant application.		

## **Measuring and Monitoring Progress**

The ultimate success of TMDL implementation activities will be measured by the de-listing of 303(d) listed streams throughout the Willamette Basin. The City of Veneta has the opportunity to affect the turbidity TMDL for Fern Ridge Reservoir. Many of the strategies that address bacteria, mercury, and temperature will also help improve turbidity and dissolved oxygen conditions in these waterways.

De-listings will occur when supported by water quality monitoring data at key points throughout the Basin. Those sampling activities are best conducted by entities with broad oversight and/or involvement rather than by individual jurisdictions like the City of Veneta. However, if an organization, such as the DEQ or the Long Tom Watershed Council determines that a sampling site within the City of Veneta is important to an overall sampling program we will support them in their efforts to establish a consistent sampling location.

For some strategies, such as education, it may take years to fully implement all aspects of this component. For others such as installing pet waste signs and receptacles in public parks, we should see fairly immediate benefits in preventing further water quality degradation. The City of Veneta recognizes that our progress towards lowering pollutant loads will be best measured by tracking our accomplishments towards implementing the strategies identified in this Implementation Plan. Target dates for having implementation completed are identified for each strategy in the City of Veneta TMDL Implementation Tracking Matrix.

The City of Veneta and the DEQ will periodically review the Implementation Plan and implementation progress. The Plan will be adapted as necessary. At the City of Veneta or DEQ request, the DEQ will meet with the City annually to review implementation progress and any barriers to implementation success. Every five years, a more comprehensive review will take place and the Plan will be adapted if necessary.

Every five years, the City of Veneta will provide the DEQ with a report documenting and tracking implementation activities. The report will contain a summary of accomplishments and any changes within the City that may influence how water quality management should be addressed. The report will contain a copy of the Implementation Matrix and indicate the status of each strategy. If there are strategies in the matrix that have not been completed within the targeted time frame, the City of Veneta will provide an explanation as why the strategy was not completed and an estimation of when the strategy will be completed or removed from the implementation measures planned.

The City, in collaboration with DEQ, will conduct an evaluation of the success of the Plan including an assessment of progress made by the City, a review of existing water quality data, and other information to assess the effectiveness of the Plan relative to pollution reduction goals. The results of the evaluation will be incorporated into a joint report describing what information was used in the evaluation, the findings of the evaluation, and the basis of decisions related to the evaluation. If the evaluation indicates that the Plan is not likely to be adequate to meet pollution reduction targets, the DEQ will work with the City to adapt the Plan to meet these targets and a timeline for accomplishing new actions.

### **Cost Analysis**

Implementation of the strategies identified in this Plan is critical to the overall success of the Plan and the eventual reduction of pollutants from the City of Veneta. The City of Veneta has chosen a variety of strategies to address TMDL pollutant parameters. Some are efforts of the City that, even without this TMDL plan, the City would implement. Some strategies are new and larger in scope, such as adopting stormwater best management practices, and will likely require additional outside funding. As such, some strategies are relatively easy to integrate into existing staffing and budgets or future City of Veneta budgets, whereas others are dependent on finding grants and/or allocating larger amounts from future budgets.

While not being all-inclusive as to incorporating every potential strategy possible, the City of Veneta has selected those that can be reasonably done and that meet the local needs and potential resources of the City. Many of the strategies outlined in the Plan already have secured funding and have momentum to be completed within the next year or two. But the City of Veneta also wants to include strategies that can be implemented if funding becomes available. Like other small cities in the region, the budget is already stretched with many competing issues to meet the needs of citizens. Moving forward with the implementation of the strategies in this Plan will require a combination of existing funding, future budgeting, existing grants and future grants.

The following table identifies the funding source and status for the strategies in our Plan.

**Funding Sources (current and future) for TMDL Strategy Implementation**

	Strategy	Funding/Resources Type and Status			
		*Budgeted Funds (current)	Budgeted Funds (future)	Grants (secured)	Grants (future)
Bacteria	Pet waste disposal education				
	Install pet waste signs in public places			X	
	Adopt stormwater best management practices	X			
	Complete Stormwater Master Plan	X	X		
	Build out wastewater collection system to the current service area	X	X		
	Send educational material to septic owners		X		
	Keep inflow and infiltration of the City's wastewater system to a minimum	X	X		
	Decrease sedimentation and erosion from new construction		X		X
	Update tree code to include mitigation		X		
Mercury	Decrease sedimentation and erosion from new construction		X		X
	Adopt stormwater best management practices		X		
	Train parks and public works employees about maintenance practices for water quality		X		
Temperature	Ensure protection of riparian areas		X		
	Create and distribute educational materials on wetland protection		X		X
	Stream restoration and enhancement		X		X
All	Pursue opportunities to partner with other local governments and organizations to implement mutual strategies		X		X

## Section Five – Regional Opportunities

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A companion document to this Plan “*The Willamette Headwaters Water Quality Assets, Gaps, and Opportunities Study*”, identifies and analyzes opportunities to partner with other jurisdictions in this part of the Willamette Basin. Findings from that study are summarized below.

The DMAs outside of the Eugene/Springfield metro area vary in size, geography, proximity to waterways, existing infrastructure, services provided, resources available, and other aspects. Populations range from 300 to 8,500 and land under the authority of DMAs can be as little as 216 acres or as much as 670,000 acres. In spite of these differences, jurisdictions in Lane County have similar water quality conditions, challenges, and mandates due to their location within the context of the larger Willamette Basin.

Jurisdictions in the region are already taking steps to preserve and restore water quality in the region. Some jurisdictions have been able to do more than others, but all seem to recognize that water quality is a fundamental component of a healthy, appealing community. There are many opportunities to augment existing initiatives, to arrange agreements with other jurisdictions for mutual benefit, and to work with other jurisdictions that are implementing the same measures.

Based on the Water Quality Management Plan in the Willamette Basin TMDLs, materials from the DEQ, EPA, and other organizations and the Lane County Water Quality Gaps Analysis there are seven major focus areas in this region of the Willamette Basin. These represent the areas that may be considered gaps in how the region as a whole is protecting and restoring water quality. The level of priority for actions is specific to each jurisdiction. The seven major water quality focus areas are:

- Animal Waste Management
- Septic System Management
- Erosion Prevention and Sediment Control
- Illegal Discharge
- Riparian Protection and Restoration
- Stormwater Planning and Management
- Education/Training

Table 6 outlines the focus areas that are of special concern for this region. The table assigns a high, medium, or lower priority to each of the eight major focus areas for each jurisdiction. The City of Veneta has many commonalities with other local jurisdictions. For example stormwater planning and management is a high priority for all jurisdictions as well as education and training.

Table 6: TMDL Prioritization Matrix for Designated Management Agencies  
Outside of the Eugene/Springfield Metropolitan Area in Lane County

<b>DMA</b> s	<b>Animal Waste Management</b>	<b>Stormwater Planning and Management</b>	<b>Septic System Management</b>	<b>Erosion Control</b>	<b>Illegal Discharge</b>	<b>Riparian Protection and Restoration</b>	<b>Education/ Training</b>
<b>Coburg</b>	Medium	High	High	High	Medium	High	High
<b>Creswell</b>	Medium	High	Lower	Medium	Medium	High	High
<b>Cottage Grove</b>	Medium	High	Lower	High	Medium	Medium	High
<b>Junction City</b>	High	High	Lower	High	High	Medium	High
<b>Lane County (outside Metro)</b>	Medium	High	High	Medium	Medium	Medium	High
<b>Lowell</b>	Medium	High	Lower	High	High	Medium	High
<b>Oakridge</b>	Medium	High	Lower	Medium	Medium	High	High
<b>Veneta</b>	High	High	Lower	High	High	Medium	High
<b>Westfir</b>	Lower	High	Medium	High	Medium	High	High

Jurisdictions could come together and sponsor training for public works staff in the region and increase the likelihood that staff performs public operations in the best way possible. Given the high visibility of public operations, the benefits of incorporating water quality-related trainings are numerous. Riparian Protection and Restoration is the most important step a jurisdiction can take to reduce temperature loads. There is potential to initiate joint efforts that are coordinated across jurisdictional boundaries to increase effectiveness and reduce costs. Table 7 provides some examples of opportunities at a regional scale.

Table 7: Potential Multi-jurisdictional Opportunities

Common Gaps in Water Quality Management	Potential Solutions
Riparian Area Restoration Priorities and Connectivity	<ul style="list-style-type: none"> <li>▪ Develop an area-wide map of existing riparian projects, public ownership, and easements</li> <li>▪ Hold cooperative planning session(s) to identify areas for restoration and connectivity</li> <li>▪ Develop area-wide baseline of riparian health to measure improvement</li> </ul>
Taking Advantage of Non-point Source Grant Opportunities	<ul style="list-style-type: none"> <li>▪ Work with watershed councils and/or LCOG to establish an inventory of non-point source grant opportunities</li> <li>▪ Apply collectively for funding for area-wide projects and protection mechanism implementation</li> </ul>
Regional Water Quality Program Coordination	<ul style="list-style-type: none"> <li>▪ Develop an area-wide stormwater map and/or plan</li> <li>▪ Initiate a multi-jurisdictional drinking water protection effort</li> <li>▪ Use Source Water Assessments to target contaminant sources and initiate appropriate programs</li> <li>▪ Create a Willamette Headwaters pollution prevention team</li> <li>▪ Partner on an area-wide Mercury Reduction Strategy</li> <li>▪ Provide free hazardous waste disposal and advertise existing programs</li> </ul>
Public Employee Pollution Prevention Training Programs	<ul style="list-style-type: none"> <li>▪ Establish a public works BMP-sharing network</li> <li>▪ Use training materials from EPA and DEQ in existing training programs</li> <li>▪ Sponsor training sessions for employees from multiple jurisdictions</li> </ul>
Promotion of Water Quality Efforts	<ul style="list-style-type: none"> <li>▪ Advertise successes in local media</li> <li>▪ Build interpretive displays near water quality projects</li> <li>▪ Develop a business recognition program for the area</li> </ul>
Monitoring Capacity	<ul style="list-style-type: none"> <li>▪ Partner with watershed councils to establish an area-wide monitoring program</li> </ul>

## Appendix One: TMDL Gaps Analysis Worksheet

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### TMDL GAP ANALYSIS WORKSHEET

The first steps in developing a TMDL Implementation Plan are to understand what water resources exist in your area and compile the work that is already being done to manage those resources. This short worksheet is designed to make this process as efficient and straightforward as possible. All the information will be used in the development of the TMDL Regional Implementation Plan. The more information that can be gathered through this initial stage, the less of a burden the rest of the process will be. Thank you for your time and responses.

**Name:** \_\_Margaret Boutell\_\_\_\_\_ **Date:** \_\_\_\_12/22/04\_\_\_\_\_

**Position:** Community Services Director

**Jurisdiction:** \_\_City of Veneta\_\_\_\_\_

#### Community Profile:

1. Which Sub-Basin is your jurisdiction located in?

Upper Willamette       Coast Fork Willamette       Mainstem Willamette  
 McKenzie       Middle Fork Willamette

2. Name the waterways and lakes that exist within or close to your jurisdiction.

Long Tom River  
Coyote Creek

3. Which watershed council does your jurisdiction work with?

**Long Tom Watershed Council**

4. Please indicate how familiar you are with TMDLs?

1  
Not at all

2

3  
Somewhat

4

5  
Very

**The following questions are intended to bring to light the work you are already doing that can be included in the Implementation Plan with no new or additional efforts. Some questions will be relevant to planning and others to public works. Please attach any relevant documents.**

1. Indicate the programs your jurisdiction has participated in or documents your jurisdiction has prepared that can be drawn from in the process of developing a TMDL Implementation Plan. (*Planning and Public Works*)

- EPA NPDES Stormwater Phase I and II Permit Stormwater Management Plans
- 401 Water Quality Certification Program
- DEQ Underground Injection Control Program
- Source Water Assessment
- Clean Water State Revolving Fund
- 319 NPS and NOAA NPS Grants
- A Watershed Council's OWEB-funded Watershed Management Plan
- Other--Please Specify:  Wetland Inventory \_\_\_\_\_

2. What zoning ordinances and/or overlays has your jurisdiction enacted that relate to water quality? (Example: Riparian Buffer) (*Planning*)

Open Space/Greenway Overlay

3. Identify which part(s) of your Comprehensive Plan address water quality, non-point source pollution, stormwater, riparian zones, or water pollution control? (*Planning*)

Section III (I) Natural Resources, and (J) Air, Water, and Land Resource Quality.

4. Has your jurisdiction completed a Stormwater Management Plan? (*Planning and Public Works*)

Now in the process. Due to be completed in March, 2006.

5. Has your jurisdiction completed a Drinking Water Protection Plan? (*Planning and Public Works*)

Drinking Water Protection Plan completed in June, 2000

Source Water Assessment Report completed in February, 2000

6. What steps has your jurisdiction taken to enact and/or comply with Statewide Land Use Planning Goals 5 and 6? (*Planning*)

Adopted Veneta Natural Resources Study (1998) which addresses Goal 5 requirements for wetlands, riparian corridors, and wildlife habitat based on existing inventories.

7. Has your jurisdiction received any awards or recognition due to your efforts to protect water quality and/or manage lands? If yes, please specify. (*Planning and Public Works*)

No

8. Does your jurisdiction have any stormwater treatment facilities? If yes, what kind and how many? (*Public Works*)

No

9. What resources does your jurisdiction provide that encourages pet owners to “pick up” after their pets (waste bags, educational materials, dog parks in environmentally-friendly areas)? (*Public Works*)

None

10. Does your jurisdiction have a process to notify the public when heavy bacteria levels may be present in waterways due to heavy rainfalls, wastewater system backup, and/or equipment failures? (*Public Works*)

Hasn't happened yet. No formal process in place.

11. Does your jurisdiction purchase instream flow water rights to maintain adequate water flows? (*Public Works*)

No

12. What employee training programs, if any, address pollution prevention in regards to municipal sources, i.e. fleet and building maintenance, park and open space maintenance, or storm water system maintenance? (*Public Works*)

None

13. Has your jurisdiction's public works or parks department constructed any swales, detention ponds/basins, or artificial wetlands? If yes, please specify. (*Public Works*)

Developers have constructed detention ponds as part of their public improvements which are reviewed by the City Engineer.

14. Does your jurisdiction encourage private developers to construct swales, detention ponds/basins, or artificial wetlands? (*Planning*)

Yes, but not for water quality – strictly for detention.

15. Does your jurisdiction offer yard waste collection services and/or recycling programs? (*Planning and Public Works*)

Yes, we have a good program.

16. Does your jurisdiction have a program to detect illegal discharges into waterways? (*Public Works*)

No.

17. Does your jurisdiction have a storm water system map? (*Public Works*)

Yes, but it is outdated (year 2000).

18. Does your jurisdiction have ordinances that (*Planning*):

- require erosion and/or sediment control at construction sites? For public improvements, not building permits. Imposed as conditions of approval on a site-by-site basis and if building within the greenway subzone.
- require retention of vegetation and/or re-planting at construction sites? Landscaping requirements and tree removal standards.
- limit impervious surfaces in new development? Only through yard minimums in residential zones.
- limit development in floodplains? Yes. Floodplain subzone.
- require septic system inspection and maintenance? No
- protect riparian areas? In Greenway Subzone.

If any were answered ‘yes’, please specify:

Most of the above requirements are in the Land Development Ordinance.

19. Does your jurisdiction perform routine maintenance of your stormwater system? If yes, briefly explain the procedures. (*Public Works*)

Clean out catch basins, inlets and outlets of detention ponds, and remove obstaceles from culvert openings.

20. List any cooperative efforts between the watershed council and your jurisdiction, such as restoration projects. (*Planning and Public Works*)

None

**The following questions are to give LCOG a better idea of where we can be of assistance.**

1. Please list the people from your jurisdiction that will be most involved in your TMDL Implementation planning process.

Name	Position	Phone	E-mail
Margaret Boutell	Community Services Director	935-2191	<a href="mailto:MBoutell@ci.veneta.or.us">MBoutell@ci.veneta.or.us</a>
Ric Ingham	City Administrator	935-2191	<a href="mailto:RIngham@ci.veneta.or.us">RIngham@ci.veneta.or.us</a>
Brian Issa	Planning Assistant	935-2191	<a href="mailto:Bissa@ci.veneta.or.us">Bissa@ci.veneta.or.us</a>

2. Please specify groups in your jurisdiction that would be especially interested in the TMDL proceedings or in volunteering.  
Neighbors for Responsible Growth  
Fern Ridge Chamber of Commerce

3. What information does your jurisdiction already have that would be helpful during the TMDL Implementation planning process?  
Wetland delineation map to be done soon on GIS.

4. What information is lacking about water quality in your community or potential protection strategies that would be helpful during the TMDL Implementation planning process?

1. Updated stormwater systems map
2. Detailed drainage survey of:
  - a) Where are the “good” waterways that we really need to protect.
  - b) Where are the “hot spots” or likely sources to string together waterways in a contiguous pattern.

5. Please indicate where you would like to receive assistance from LCOG by rating the following components of TMDL planning on a scale of 1 (Highest priority) to 5 (Lowest priority).

- 8   Public outreach
- 1   Identifying potential management strategies
- 7   Public official and staff workshops
- 4   Developing educational and outreach materials

- \_\_9\_ Conducting public workshops and stakeholder meetings
- \_\_3\_ Drafting potential policies
- \_\_5\_ Developing a performance monitoring plan
- \_\_2\_ Assuring compliance with applicable administrative rules and federal regulations
- \_\_6\_ GIS data integration

Additional Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Thank you for taking the time to complete this worksheet. This information will help to streamline the rest of the TMDL Implementation planning process.**

**If you have any questions or comments please contact Scott Shine at the Lane Council of Governments.**

**Phone: (541) 682-6434**

**E-mail: [sshine@lane.cog.or.us](mailto:sshine@lane.cog.or.us)**

## Appendix Two: Potential TMDL Implementation Strategies

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### Gaps in Existing Water Quality Efforts for Temperature

Temperature Gaps	Potential Solutions
Streamside vegetation unprotected	<ul style="list-style-type: none"> <li>▪ Provide technical assistance to landowners along waterways</li> <li>▪ Demonstrate riparian area, wetland, and floodplain BMPs on publicly managed land</li> <li>▪ Adopt a riparian buffer ordinance or overlay zone</li> <li>▪ Educate landowners about the value of riparian areas</li> <li>▪ Initiate a tree planting program along waterways</li> </ul>
High priority riparian areas unidentified	<ul style="list-style-type: none"> <li>▪ Determine areas that will yield a large benefit if protected or restored</li> <li>▪ Establish framework to identify critical riparian areas</li> <li>▪ Determine the feasibility of acquiring critical lands</li> </ul>

### Gaps in Existing Water Quality Efforts for Bacteria

Bacteria Gaps	Potential Solutions
Proper animal waste management	<ul style="list-style-type: none"> <li>▪ Provide bags for pet owners to pick-up after pets</li> <li>▪ Partnerships with watershed councils and others</li> <li>▪ Erect signs to inform pet owners of the problems related to pet waste</li> <li>▪ Develop educational materials about proper manure management</li> <li>▪ Implement programs to better manage waste in areas with high concentrations of wildlife</li> </ul>
Erosion prevention and sediment control at new construction sites	<ul style="list-style-type: none"> <li>▪ Adopt erosion prevention and sediment control regulations for new construction</li> <li>▪ Provide incentives to developers who meet certain erosion control qualifications</li> <li>▪ Implement site plan review procedures that includes requirements for erosion control mechanisms</li> <li>▪ Establish site inspection and monitoring procedures</li> </ul>
Lack of a process to inventory, monitor, and correct failing septic systems	<ul style="list-style-type: none"> <li>▪ Offer assistance for homeowners to replace a failing or outdated system</li> <li>▪ Use building records to identify systems that may be outdated and more likely to fail</li> <li>▪ Educate homeowners on proper septic maintenance and inspection</li> </ul>
Programs to detect and eliminate illegal discharges into waterways	<ul style="list-style-type: none"> <li>▪ Promote proper waste management through education</li> <li>▪ Develop a stormwater system map</li> <li>▪ Increase fines for illegal dumping</li> <li>▪ Establish a illegal dumping control program</li> <li>▪ Educate citizens about waste disposal opportunities and the hazards of improper waste disposal</li> <li>▪ Develop a process to respond to and document complaints of illegal discharge</li> </ul>
Lack of multi-objective stormwater plans	<ul style="list-style-type: none"> <li>▪ Develop a stormwater system map and plan</li> <li>▪ Regional stormwater map and/or plan</li> <li>▪ Develop and implement operations and maintenance procedures using best management practices</li> <li>▪ Integrate water quality protection and natural resource considerations in existing plans</li> </ul>
Lack of stormwater detention facilities and incentives to encourage their construction	<ul style="list-style-type: none"> <li>▪ Use an ordinance or other regulatory mechanism to address runoff from new construction projects</li> <li>▪ Establish maintenance program for all stormwater features</li> <li>▪ Adopt water quality standards for public works projects</li> <li>▪ Provide incentives to landowners that construct on-site stormwater detention/treatment facilities</li> <li>▪ Encourage stormwater features on existing open space or landscaped areas through a retrofit incentive program</li> </ul>
Lack of process to notify public of high bacteria levels	<ul style="list-style-type: none"> <li>▪ Distribute educational materials</li> <li>▪ Establish a program to notify residents when high bacteria levels are present</li> </ul>

### Gaps in Existing Water Quality Efforts for Mercury

Mercury Gaps	Potential Solutions
Erosion prevention and sediment control regulations for new construction	<ul style="list-style-type: none"> <li>▪ Adopt erosion prevention and sediment control guidelines for new construction</li> <li>▪ Provide incentives to developers who meet certain erosion control qualifications</li> <li>▪ Implement site plan review procedures that includes requirements for erosion control mechanisms</li> <li>▪ Establish site inspection and monitoring procedures</li> </ul>
Programs to work with dentists and recycle fluorescent light bulbs	<ul style="list-style-type: none"> <li>▪ Contact jurisdictions with established mercury reduction programs</li> <li>▪ Implement programs modeled after existing programs</li> </ul>
Process to notify citizens of fish consumption advisories	<ul style="list-style-type: none"> <li>▪ Distribute educational materials on fish consumption advisories</li> <li>▪ Put up signs when fish consumption advisories are issued</li> </ul>
Lack of stormwater detention facilities and incentives to encourage their construction	<ul style="list-style-type: none"> <li>▪ Use an ordinance or other regulatory mechanism to address runoff from new construction projects</li> <li>▪ Establish maintenance program for all stormwater features</li> <li>▪ Adopt water quality standards for public works projects</li> <li>▪ Provide incentives to landowners that construct on-site stormwater detention facilities</li> <li>▪ Encourage stormwater features on existing open space or landscaped areas through a retrofit incentive program</li> </ul>

### Gaps in Existing Water Quality Efforts for All Pollutants

Gaps for All Pollutants	Potential Solutions
Monitoring capacity	<ul style="list-style-type: none"> <li>▪ Partner with watershed councils to establish a region-wide monitoring program</li> </ul>
Enforcement capacity	<ul style="list-style-type: none"> <li>▪ Encourage a 'Neighborhood Watch'-type program for water quality violations</li> </ul>
Taking advantage of non-point source grant opportunities	<ul style="list-style-type: none"> <li>▪ Establish an inventory of non-point source grant opportunities</li> <li>▪ Apply collectively for funding for region-wide projects and protection mechanism implementation</li> </ul>
Regional water quality coordination	<ul style="list-style-type: none"> <li>▪ Use Source Water Assessments to target contaminant sources</li> <li>▪ Partnerships with watershed councils and others</li> <li>▪ Region-wide stormwater map and/or plan</li> <li>▪ Regional drinking water protection effort</li> <li>▪ Regional pollution prevention team</li> <li>▪ Regional Mercury Reduction Strategy</li> <li>▪ Provide free hazardous waste disposal and advertise existing programs</li> </ul>
Public employee pollution prevention training programs	<ul style="list-style-type: none"> <li>▪ Regional public works BMP-sharing network</li> <li>▪ Use training materials from EPA and DEQ in existing training programs</li> <li>▪ Regional training sessions</li> </ul>
Promotion of water quality efforts	<ul style="list-style-type: none"> <li>▪ Advertise successes in local media</li> <li>▪ Build interpretive displays near water quality projects</li> </ul>
Incentives/regulations for stormwater features in new development	<ul style="list-style-type: none"> <li>▪ Adopt an ordinance requiring stormwater detention and treatment in new developments</li> <li>▪ Encourage stormwater features on existing open space or landscaped areas through a retrofit incentive program</li> </ul>