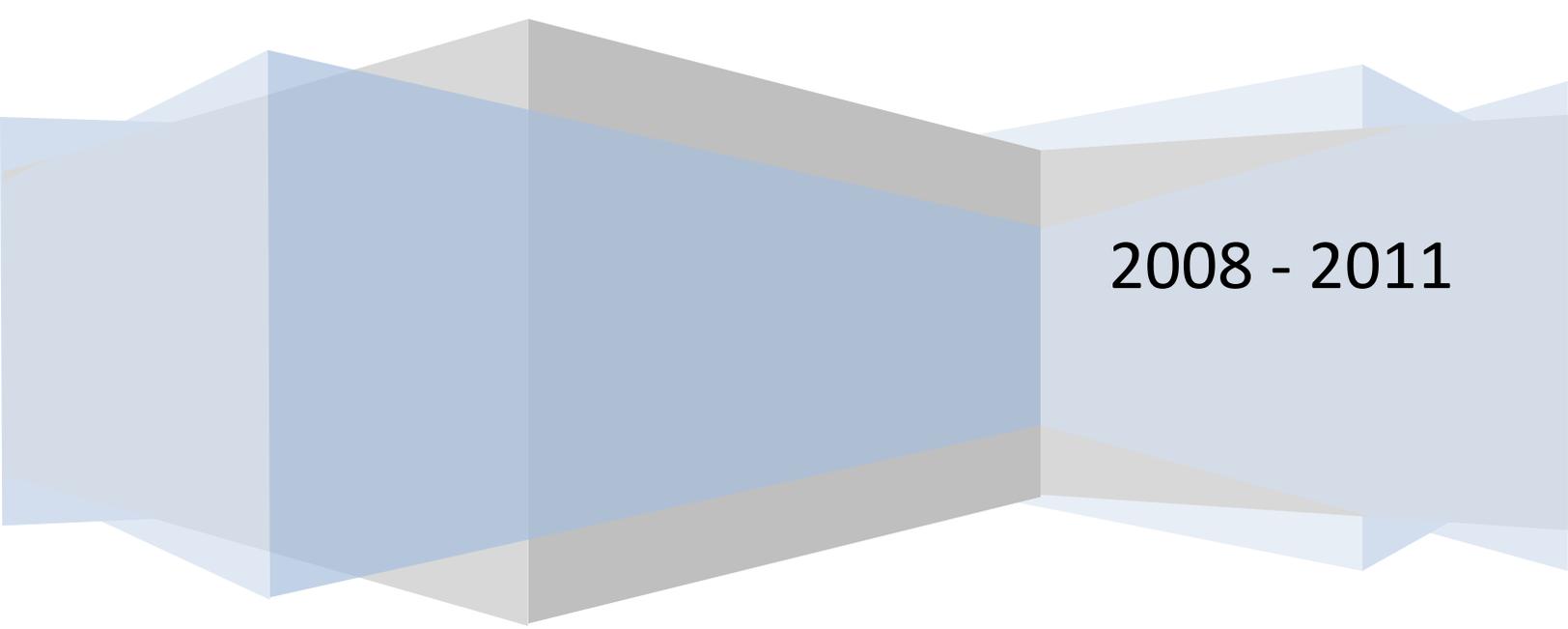


State of Oregon Department of Environmental Quality

**Issue Paper: Total Maximum Daily  
Loads for Reducing Toxic Pollutants in  
Oregon Waters from Non-NPDES  
(National Pollutant Discharge  
Elimination System) Sources  
Human Health Toxics Rulemaking**

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2008 - 2011

## I. Introduction

### A. Context

The Environmental Quality Commission (EQC) directed the Oregon Department of Environmental Quality (the department) to review existing rules and implementation strategies to identify gaps and propose strategies, including rule changes, that would reduce toxic pollutants in Oregon waters that come from nonpoint sources and other sources not regulated by permits under section 402 of the federal Clean Water Act.

The department considered a number of items for inclusion in the Human Health Toxic Pollutants and Implementation Policies Rulemaking. One of the methods the department included in the rulemaking was for the department to develop Total Maximum Daily Loads (TMDLs) with other partners that better identified the sources of pollutants. In addition, the proposed TMDL method would be more useful for pollutant reduction by nonpoint sources by having better information on how to implement the TMDL.

A TMDL is a tool to bring impaired waterbodies into compliance with water quality standards and support beneficial uses. Watershed scale water quality calculations and pollutant source assessment associated with TMDLs determine the amounts of pollution that streams can receive and still meet applicable water quality standards. The quantification is done by estimating instream pollutant load and the load from sources. These loads are then used to determine the reductions needed to meet water quality standards. A TMDL is developed in collaboration with stakeholders.

### B. Purpose, Why we are doing this now

The purpose of this issue paper is to determine whether changes to current TMDL development and implementation procedures would further the goal of reducing and preventing toxic pollutants in waters of the state. As part of the current review of Oregon's human health toxics criteria, the department worked with a rulemaking group to develop reduction strategies for toxic pollutants from non-NPDES sources. The department used these strategies to develop recommendations for a rulemaking package to accomplish the directive from EQC.

## II. Background

### A. History

Under the Clean Water Act (CFR 130.7) and state statute (ORS 468), the agency is authorized to develop, implement, and enforce TMDLs. TMDLs have been developed and implemented in Oregon since the late 1980s. Oregon's TMDL rule (OAR 340-042-0025) was adopted by the EQC in 2002.

## ***B. Problem Description***

In Oregon, there are waterbodies on the 303(d) list due to impairment from toxic chemicals. In addition, concerns about the level and variety of toxic pollutants in Oregon waters have been highlighted in various studies by governmental agencies, such as USGS and the department. These concerns have also been raised by citizens and environmental groups, as well as the EQC. Toxic pollutants come from various point sources and nonpoint sources. Nonpoint sources of toxic pollutants include both current use and legacy sources (i.e., ongoing contamination from toxic pollutants banned in the past such as DDT).

Examples of these nonpoint sources include urban stormwater, agriculture, forestry, and others. Some toxic chemicals may be applied intentionally, like pesticides, while others could unintentionally enter waterbodies via air deposition. In either case, the toxic chemicals are transported to water bodies from nonpoint sources in runoff or air deposition.

There are many partners that have been actively working on pollution control associated with agricultural and forestry activities. These partners include individual land owners, Departments of Agriculture, Forestry, and State Lands, various Soil and Water Conservation Districts, cities, counties, federal land management agencies, and the Natural Resource Conservation Service. Despite the efforts made by the department and their partners to reduce the amount of toxic chemicals entering waterbodies, some waterbodies are still not meeting water quality standards for toxic pollutants.

Currently, most of the TMDLs are developed at basin scale, such as the Willamette Basin, or the subbasin scale, such as the Tualatin subbasin, and address multiple pollutants. These TMDLs are focused on calculating the assimilative capacity of waterbodies, also referred to as the loading capacity. Designated Management Agencies (DMAs) responsible for implementing TMDLs to address nonpoint sources of pollutants such as ODA, ODF, federal land management agencies and municipalities need more detailed information in order to plan where and when conservation practices should be implemented to meet TMDL load allocations (LAs). The main criticism about the current TMDL approach is that TMDLs usually do not provide enough detailed information about sources of the pollutant for the DMAs and local partners to take specific management actions. The current TMDL approach can be improved to address toxic pollutant reductions more effectively and efficiently in Oregon's waters with better source assessment information to guide implementation planning.

The shortcomings identified for the recent TMDLs include:

### *TMDL development*

1. Lack of detail in analyses due to spatial scale and available data
2. Insufficient source analyses
3. Lack of clear policy to include air source analyses
4. Lack of timelines and measurable milestones

5. Insufficient reasonable assurance for meeting goals

#### *TMDL Implementation*

6. Unclear goals and priorities for nonpoint sources – Agriculture, Forestry, and Urban DMAs
7. Unclear goals and priorities for point sources – Urban DMAs
8. Lack of process to resolve disagreements between agencies
9. Lack of process to ensure that actions taken to implement the TMDL load allocations are effective

The department's recommendations related to TMDLs for Toxics rulemaking package includes rule changes in Division 42, as well as to develop an internal management directive for TMDLs.

#### ***C. Oregon's TMDL Program and Toxics TMDLs***

When rivers or streams are listed as impaired, states are required to develop TMDLs that define how much of a pollutant a waterbody can receive and still meet water quality standards. The complete federal TMDL regulation is provided in Attachment C. The agency has developed and issued a number of TMDLs for toxic pollutants that have been approved by EPA. The pollutants addressed in these TMDLs were mainly legacy pesticides and heavy metals. The agency has also developed guidance to DMAs for TMDL implementation (<http://www.deq.state.or.us/WQ/TMDLs/docs/impl/07wq004tmdlimplplan.pdf>). This guidance includes directions to DEQ staff for providing technical assistance to DMAs for development of TMDL Implementation Plans.

In addition, EPA provides a number of guidance documents for TMDL development and watershed planning for implementation. (Available at: <http://www.epa.gov/owow/TMDL/guidance.html>)

The complete TMDL rule is provided in Attachment B.

#### ***D. Stakeholder Participation***

A Non-NPDES workgroup consisting of private interest groups and agencies was formed to review and comment on the agency's toxics standards rulemaking package that would affect Non-NPDES sources and address pollutants from nonpoint sources. The workgroup was charged to review and provide advice, but not necessarily to reach a consensus amongst group members. In general, the workgroup had varying concerns and points of view regarding the department's recommendations. Some work group members believed that the department did not identify gaps nor propose strategies to reduce toxics from non-NPDES sources, while others believed that the department went beyond its regulatory authority. Perspectives of the

workgroup members on specific agency recommendations are included for each department recommendation.

In addition, DEQ held a public comment period from January through March 2011, and held nine public hearings in eight locations in February and March, 2011 to provide opportunity for the public to provide oral and written comments on the proposed rule revisions. As part of the toxics standards rulemaking package, the department prepared a document with the department's response to public comments. See *Response to Comments: Toxics Rulemaking (DEQ, 2011)* for further detail.

### III. Addressing existing issues and gaps with TMDLs through "Implementation Ready" TMDLs and Internal Management Directive development

The department evaluated different approaches for developing and implementing TMDLs to reduce toxic pollution from nonpoint sources. These approaches are based on ideas raised within the agency and by stakeholders.

#### A. TMDL Development

##### 1. Lack of detail in analyses due to spatial scale

Most of the TMDLs were currently developed at large spatial scales, such as USGS 6-digit or 8-digit Hydrologic Unit Codes (HUCs). The large spatial scale assessments in current TMDLs may not facilitate collaboration among local partners nor provide information necessary to guide implementation plan development including prioritization of conservation activities.

##### *Applicability/Scope*

This solution would be applied statewide, beginning with basins where TMDLs will be developed in the near future.

##### *DEQ Recommendation*

When identified as necessary during scoping or watershed planning process, develop TMDLs at a spatial scale that allows the agency to work closely with DMAs and local stakeholders.

Develop Internal Management Directive (IMD) for TMDLs that includes guidance on how to develop TMDLs with input from stakeholders and DMAs. In order to address the scale issue, the IMD needs to include guidance on how to select a manageable spatial scale [OAR 340-042-0040(2)]

Corresponding paragraphs and subsections of OAR Division 42 TMDL rule are indicated for the items that will be included in the Implementation-Ready TMDL IMD.

*Policy objective*

Identify sources of toxic pollutants to Oregon waters in order to prevent further impairment and move toward attainment of water quality standards.

*Policy evaluation*

If this strategy is implemented, TMDLs could provide DMAs and local partners with the direction needed to develop implementation plans with specificity as to where and when management measures and restoration projects will be implemented.

*Advantages and disadvantages*

Conducting a finer scale source analyses for TMDLs will allow DEQ to provide guidance to DMAs as to what they need to do to achieve TMDL goals. It will however be a significant added workload to develop these TMDLs. In order to implement this strategy, additional guidance needs to be given through an IMD.

*Summary of RWG discussion and views*

The rulemaking workgroup has discussed this issue at several meetings.

- The workgroup members have expressed concerns about lack of adequate funding for the agency and other agencies to support development of smaller scale TMDLs. The agency explained that it can prioritize and work on projects by available resources.

*Authority and precedence*

The department has authority to develop TMDLs including "Implementation-Ready" TMDLs under Oregon's TMDL rule, OAR 340-042-0025 to 0080. OAR 340-042-0040(4) specifies elements that must be included in a TMDL.

## 2. Sources of pollutants

Source assessment is one of the required elements in a TMDL although the level of detail is not specified in rule. Due to lack of information, resources, and need to stay on schedule, most of the TMDLs have been developed at a basin scale, and source analyses are often conducted broadly. Such source analyses in current TMDLs may not allow for some local partners to participate in TMDL development in a meaningful way because details are lacking. Such broad source assessments may not provide information that could be used to identify priority areas for implementation.

*Applicability/Scope*

This solution could be applied statewide, beginning with basins where TMDLs will be developed in the near future.

*DEQ Recommendation*

When identified as necessary during scoping or watershed planning process, conduct detailed source assessment. Work with stakeholders and DMAs to provide information for source assessment.

Develop IMD for TMDLs that includes guidance on how to conduct detailed source analyses. The IMD needs to include instructions on how to:

- Involve stakeholders in the TMDL process at all levels [OAR 340-042-0050(1)]
- Conduct source assessments [OAR 340-042-0040(4)(f)]

Corresponding paragraphs and subsections of OAR Division 42 TMDL rule are indicated for the items that will be included in the Implementation-Ready TMDL IMD.

*Policy evaluation*

If this strategy is implemented, TMDLs could provide DMAs and local partners with the direction needed to develop implementation plans with specificity as to where and when management measures and restoration projects will be implemented based on sources of that pollutant.

*Advantages and disadvantages*

Conducting a finer scale source analyses for TMDLs will allow the department to provide guidance to DMAs as to location of priority waterbodies. It will however be a significant added workload to develop TMDLs since more monitoring information and detailed analysis would be needed. Since the department is expecting no additional resources for the TMDL program, the pace of developing TMDLs will decrease. In order to implement this strategy, additional guidance also needs to be given through an IMD.

*Summary of RWG discussion and views*

- Some of the workgroup members have expressed concerns about lack of adequate funding for the agency and other agencies to support development of smaller scale TMDLs. The agency explained that it can prioritize and work on projects by available resources.
- There has been both support and concerns about the agency's intent to assign LAs to individual land owners for implementing TMDLs. The agency explained that there will be local stakeholders involvement during TMDL development.
- Some work group members questioned the department's authority to regulate agricultural practices and forest operations. The agency shared legal documents

that clarified the agency's authority for forestry, and explained its regulatory authority for other sources.

*Authority and precedence*

The department has authority to develop TMDLs including "Implementation-Ready" TMDLs under Oregon's TMDL rule, OAR 340-042-0025 to 0080. OAR 340-042-0040(4) specifies elements that must be included in a TMDL.

3. Air and Land sources

Although the department has authority to do so, its ability to identify land and air sources and assign LAs for land and air sources is not explicit in the Division 42 TMDL rule. See Non-NPDES Rule Revision Issue Paper for detail.

4. Timelines and milestones

The department is required to include a timeline and measurable milestones in Water Quality Management Plans (WQMPs), which are an element of each TMDL. The department includes discussion of timelines and associated milestones in TMDLs, but in such general terms that they are not useful for tracking implementation.

*Applicability/Scope*

This solution will be applied statewide, beginning with basins where TMDLs will be developed in the near future.

*DEQ Recommendation*

Include specific timelines and associated milestones in all TMDLs by working with stakeholders and DMAs. Work with the Department of Justice to clarify what actions can be taken by the department if timelines and milestones are not met. Develop an IMD for TMDLs that includes guidance on how to set specific timelines for implementation and water quality milestones [OAR340-042-0040(4)(I)(D)]

Corresponding paragraphs and subsections of OAR Division 42 TMDL rule are indicated for the items that will be included in the Implementation-Ready TMDL IMD.

*Policy objective*

Set more specific timeline and milestones that measure implementation efforts and track progress toward attainment of water quality standards.

### *Policy evaluation*

If this strategy is implemented, timelines and associated milestones for implementation efforts can be used to guide DMAs and stakeholders to track their implementation efforts and for the department to evaluate progress and effectiveness of actions taken to implement TMDLs.

#### *Advantages and disadvantages*

Having specific timelines and associated milestones will clarify the department's expectations and allow DMAs and other sources within a TMDL basin to plan their activities and measure progress. The timelines and milestones would increase accountability of DMAs and the department for addressing water quality impairments; set priority areas for implementation; provide for more transparency in the implementation process; allow for adaptation of implementation approaches given interim progress reports on whether milestones are being met; promote the ownership of the implementation process by DMAs and stakeholders. Development of timelines and milestones, as well as monitoring and oversight of these timelines and milestones would require additional resources. Development of an IMD to provide additional guidance will also require additional resources.

#### *Summary of RWG discussion and views*

The rulemaking workgroup discussed the need for TMDLs to provide information to facilitate implementation, but not specifically about timelines.

- Some of the stakeholders compared the requirements for point sources under permits and for nonpoint sources. They expressed the need for nonpoint sources to have more specific schedules for compliance similar to point sources. The department reiterated its intent to improve its ability to track and evaluate the effectiveness of implementation efforts mainly by working with DMAs.

### *Authority and precedence*

The department currently has authority to set timelines and milestones in TMDLs. [OAR340-042-0040(4)(I)(D) and (F)]

## 5. Reasonable assurance

The department is required implicitly under CWA303(d)(1)(c) and 301(b)(1)(C) and explicitly in OAR Division 42 to provide reasonable assurance. Section 303(d)(1)(C) requires that the point source-nonpoint source split be at a level necessary to implement the applicable water quality standards. Without a demonstration in the TMDL of "Reasonable Assurance" that the nonpoint source load allocation will be met, there is no assurance that the TMDL equation will add up to a sum that does not exceed a level necessary to implement the

applicable water quality standards. The rationale the department provides in current WQMPs does not provide that assurance.

*Applicability/Scope*

This solution will be applied statewide, beginning with basins where TMDLs will be developed in the near future.

*DEQ Recommendation*

Begin including a detailed discussion to support the agency's finding that the TMDLs will be implemented and Waste Load Allocations (WLAs) and LAs will be met. Develop an Internal Management Directive (IMD) for TMDLs and provide guidance on how to set specific timelines and interim milestones including environmental outcomes needed to meet the TMDL allocations. (See item 4 Timelines and Milestones)

*Policy objective*

Provide assurance that pollutants will be reduced from sources applicable to DEQ regulations in order to prevent further impairment and move toward attainment of water quality standards.

*Policy evaluation*

If this strategy is implemented, timelines and milestones will be used to measure progress in meeting load reductions. It will therefore provide better assurance that TMDLs will be implemented and water quality goals will be met.

*Advantages and disadvantages*

Changing the way TMDLs are developed and implemented will require additional resources. Setting clear requirements and expectations for DMAs and local partners in TMDLs and WQMPs will allow DMAs to seek resources needed to implement measures that are needed to meet LAs.

*Summary of RWG discussion and views*

The rulemaking workgroup has not had a focused discussion around providing reasonable assurance in TMDLs.

- Some members have expressed the need for nonpoint sources to be accountable to implement measures that are needed to meet LAs.

*Authority and precedence*

OAR 340-042-0040(4)(I)(J) requires that WQMPs include a "description of reasonable assurance that management strategies and sector-specific or source-specific implementation plans will be carried out through regulatory or voluntary actions."

## *B. TMDL Implementation*

### 1. Unclear TMDL goals and priorities for Agriculture and Forestry (example: 26.7% Mercury load reduction in Mainstem Willamette):

Currently TMDLs and WQMPs provide LAs that are assigned as percent load reductions and apply to large geographic areas such as sub-basins. In many TMDLs and WQMPs no other information based on the department's watershed analyses to guide implementation activities is included. It is therefore difficult for DMAs such as the Departments of Forestry and Agriculture to develop strategies to meet those general load allocations.

#### *Applicability/Scope*

This solution will be applied statewide for both toxics and conventional pollutants, beginning with basins where TMDLs will be developed in the near future.

#### *DEQ Recommendation*

Include in TMDLs and WQMPs priority areas and surrogate measures to guide implementation. DEQ would partner with DMAs and experts during the TMDL development stakeholder process. Develop an Internal Management Directive (IMD) for "Implementation Ready" TMDLs that provides guidance on how to engage stakeholders, partners, and DMAs in determining load allocations and priorities. Further, include guidance in the IMD for the the department to coordinate with DMAs to identify surrogate measures and conditions that will lead to attainment of TMDL load allocations. Work with these groups as they determine what is needed to achieve load allocations.

- Select surrogate measures and conditions [OAR340-042-0040(5)(b), (6)]
- Determine specific amount of surrogate measures needed to achieve TMDL goals [OAR340-042-0040(4)(I)(C), (5)(b)]
- Facilitate stakeholders taking ownership of the TMDL implementation [OAR 340-042-0040(4)(I)(L) and (M)]

Corresponding paragraphs and subsections of OAR Division 42 TMDL rule are indicated for the items that will be included in the Implementation-Ready TMDL IMD.

#### *Policy objective*

Clarify the process and standards for determining what forestry and agriculture sectors need to do to meet TMDL LAs.

#### *Policy evaluation*

If this strategy is implemented, TMDLs and their associated WQMPs will include clear and measurable goals for agriculture and forestry sectors to meet.

*Advantages and disadvantages*

Having a clear process for engaging stakeholders and DMAs in determining source specific load allocations and priorities should improve the efficacy of implementation plans and allow for better allocation of limited resources. Negotiating and reaching agreement may require additional resources and time. In addition, processes and standards may not exist for determining necessary action that are needed to meet LAs. In such cases, those processes and standards will need to be created, and it will take significant resources. Reaching agreement with DMAs on priority areas and the surrogate measures to meet TMDL goals will facilitate implementation activities and ensure reduction of toxics and other pollutants in Oregon's waters.

*Summary of RWG discussion and views*

The rulemaking workgroup had several lengthy discussions about working with other regulatory agencies on TMDL implementation to reduce toxic pollutants.

- Many workgroup members were supportive of the collaborative relationships the department has with ODA and ODF and expressed those views.
- Some expressed concerns about the department making unilateral decisions without enough local input. The department confirmed its support for collaboration and intent to continue working with both agencies during TMDL development and implementation.
- Some stakeholders expressed their concern that the department does not have the authority or expertise to select the types of BMPs and specify the amount of practices that are needed to achieve TMDL goals. The department explained its plan to work with DMAs such as Departments of Agriculture and Forestry to develop surrogate measures and conditions. The department also explained that there will be options for those agencies to develop their own rules so long as they provide assurance that those rules can also meet TMDL load allocations.

*Authority and precedence*

The department already has authority to specify actions that are needed to meet TMDL load allocations under the TMDL rule. [OAR 340-042-0040(5)(b)]

## 2. Unclear goals and priorities for urban and rural stormwater management

There is no process to address National Pollutant Discharge Elimination System (NPDES) permitted and NPS stormwater sources in TMDL development. Also there is no clear standard or guideline to ensure that urban and rural residential stormwater will meet the goals of TMDLs.

*Applicability/Scope*

This solution will be applied statewide, beginning with basins where TMDLs will be developed in the near future.

*DEQ Recommendation*

Specify which BMPs and practices should be included in a comprehensive stormwater management program in each TMDL to address stormwater. Include guidelines to identify measures that will result in improving and achieving water quality standards in the TMDL guidance document being prepared for areas covered under Coastal Zone Act Reauthorization Amendments CZARA. Include the surrogate measures that are necessary for meeting the WLA and LA.

*Policy objective*

Clarify the process and standards for evaluating the adequacy of both permitted and NPS urban and rural residential stormwater management plans designed to meet TMDL LAs and WLAs.

*Policy evaluation**Advantages and disadvantages*

Providing a clear process for evaluating adequacy of stormwater management measures and sufficient information regarding how to manage stormwater to DMAs will improve the development and implementation of TMDL implementation plans relating to stormwater.

*Summary of RWG discussion and views*

The rulemaking workgroup has had several lengthy discussions about how nonpoint sources could contribute to the effort to reduce toxic pollutants in the environment. The discussions during workgroup meetings have mainly been focused around forestry and agriculture.

- The department has received some written comments about urban stormwater being an important issue.
- Some stakeholders also expressed their concern that the agency's efforts have been focused on agriculture and forestry when toxic pollutants in urban stormwater is an important issue. The agency explained that its authority to regulate urban DMAs is already clear in rules compared to agriculture and forestry.

*Authority and precedence*

The department has authority to regulate local governments and entities for urban and rural residential stormwater under Oregon TMDL rules.

### 3. Lack of process to resolve disagreements between agencies

Currently, there is no clear process for conflict resolution between DMAs with statutory authority to regulate nonpoint sources and the department.

*Applicability/Scope*

This solution would be applied statewide, beginning with basins where TMDLs will be developed in the near future.

*DEQ Recommendation*

Negotiate a process with Departments of Agriculture and Forestry for conflict resolution and include in the inter-agency Memoranda of Agreement. The process should allow for opportunities for ODA, ODF, and the agency to resolve issues. The issues should be raised to commission and boards only if other options have been exhausted.

*Policy objective*

Provide a clear process for conflict resolution to make sure that there is an agreed upon way to resolve conflicts and disagreements.

*Policy evaluation*

If this strategy is implemented, the process for resolving conflicts, including when EQC may petition the Board of Forestry and Department of Agriculture, would be clarified.

*Advantages and disadvantages*

Having a clear process in the IMD for raising issues will help the agency to be consistent when in conflict with other agencies. It may give incentives for local partners to resolve issues locally.

*Summary of RWG discussion and views*

The rulemaking workgroup has had some discussions on EQC's authorities and how an EQC petition to another agency or board may be triggered. See attached flow chart for the proposed overall flow of interagency coordination.

- Some stakeholders stated that the department's proposed process for working with other state agencies does not provide assurance that water quality will be adequately improved.

*Authority and precedence*

The processes for resolving issues between the EQC, ODA, and the Board of Forestry are explicitly described in statutes (ORSs 468, 527, 568, and 561). However, there is no clear process specified in statute describing when and how the department should elevate issues to the EQC.

#### 4. Lack of process to evaluate TMDL Implementation for meeting TMDL Allocations

Currently, the department does not have standards for evaluating effectiveness of TMDL implementation to meet TMDL allocations. Stakeholders have expressed concerns that without adequate evaluation of TMDL implementation and monitoring requirements, it is not possible to ensure TMDL compliance for nonpoint sources.

*Applicability/Scope*

This solution would be applied statewide, beginning with basins where TMDLs will be developed in the near future.

*DEQ Recommendation*

Use a consistent process for evaluating adequacy of implementation strategies that are proposed to be used to meet TMDL WLAs and LAs. In order to do so, include in the IMD how to work with ODA and ODF for review of regulations and programs for meeting TMDL load allocations, as well as implementation plans from other DMAs. Work with ODA and ODF to decide how they should be involved in the evaluation process. Describe in the IMD what information needs to be included in TMDLs in order to use surrogate measures effectively.

- Develop plans for implementation effectiveness monitoring and tracking [OAR 340-042-0040(4)(I)(K)]
- Ensure TMDL implementation strategy effectiveness [OAR 340-042-0040(4)(I)(K), (5)(b)]
- Determine adequacy of DMA implementation strategies for meeting load allocations [OAR 340-042-0040(4)(I)(E)]

*Policy objective*

Ensure implementation activities are effective to reduce pollutants and achieve water quality standards. Division 42 rules require DEQ and the DMAs to modify plans as necessary, and this evaluation will inform DEQ and the DMAs when adjustments and amendments are warranted.

*Policy evaluation*

Implementing this strategy through development and implementation of TMDL IMD will allow the agency to be consistent when evaluating TMDL implementation strategies for their sufficiency to meet TMDL LA. It will provide better assurance that surrogate measures, when selected for implementation of TMDLs, will contribute to reducing pollution.

*Advantages and disadvantages*

Working with other state, federal, and local entities would require additional resources for the department and other participating agencies. Development of the IMD will also require additional resources.

*Summary of RWG discussion and views*

The rulemaking workgroup has had some discussions on TMDL implementation effectiveness as well as the department's process for approving TMDL Implementation Plans. ODA and ODF provided information about their monitoring programs.

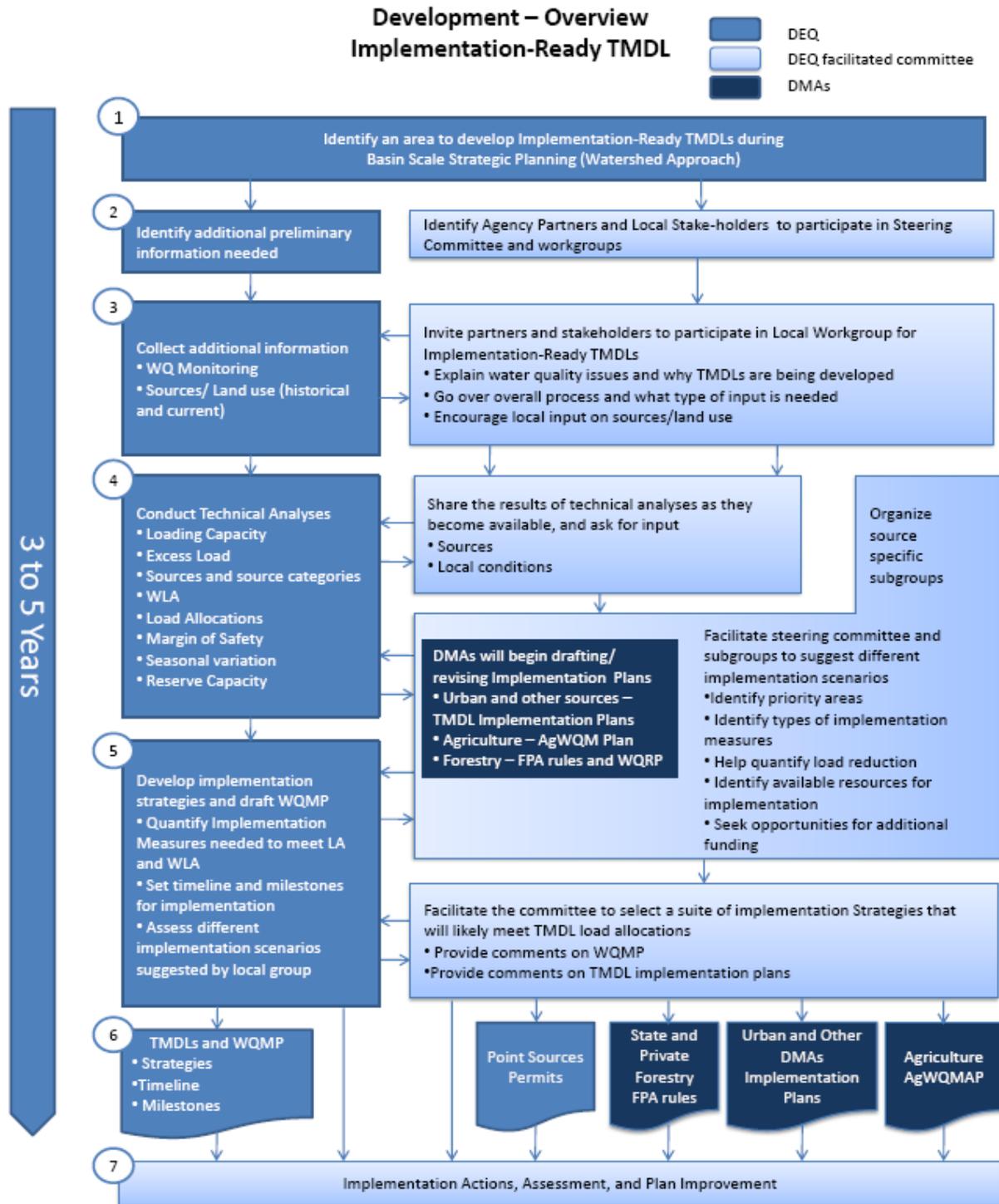
- Some workgroup members have compared monitoring associated with TMDLs with monitoring required for permits, and expressed the need for more robust TMDL implementation effectiveness monitoring for nonpoint sources including urban stormwater.
- Some workgroup members expressed their concern for individual landowners to have to conduct water quality monitoring for compliance. The department assured that surrogate measures and other indicators could be used to evaluate whether water quality goals are being met.

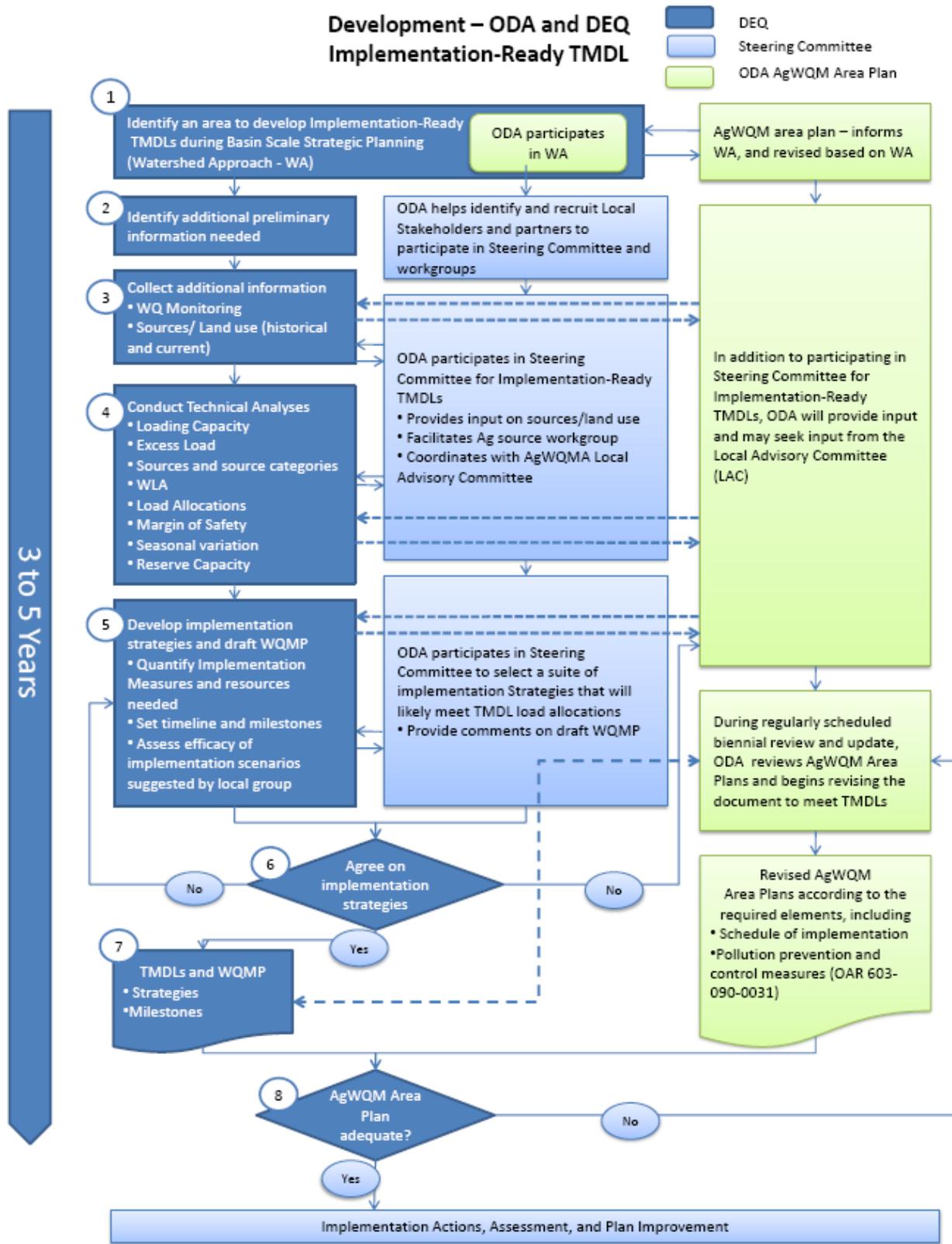
*Authority and precedence*

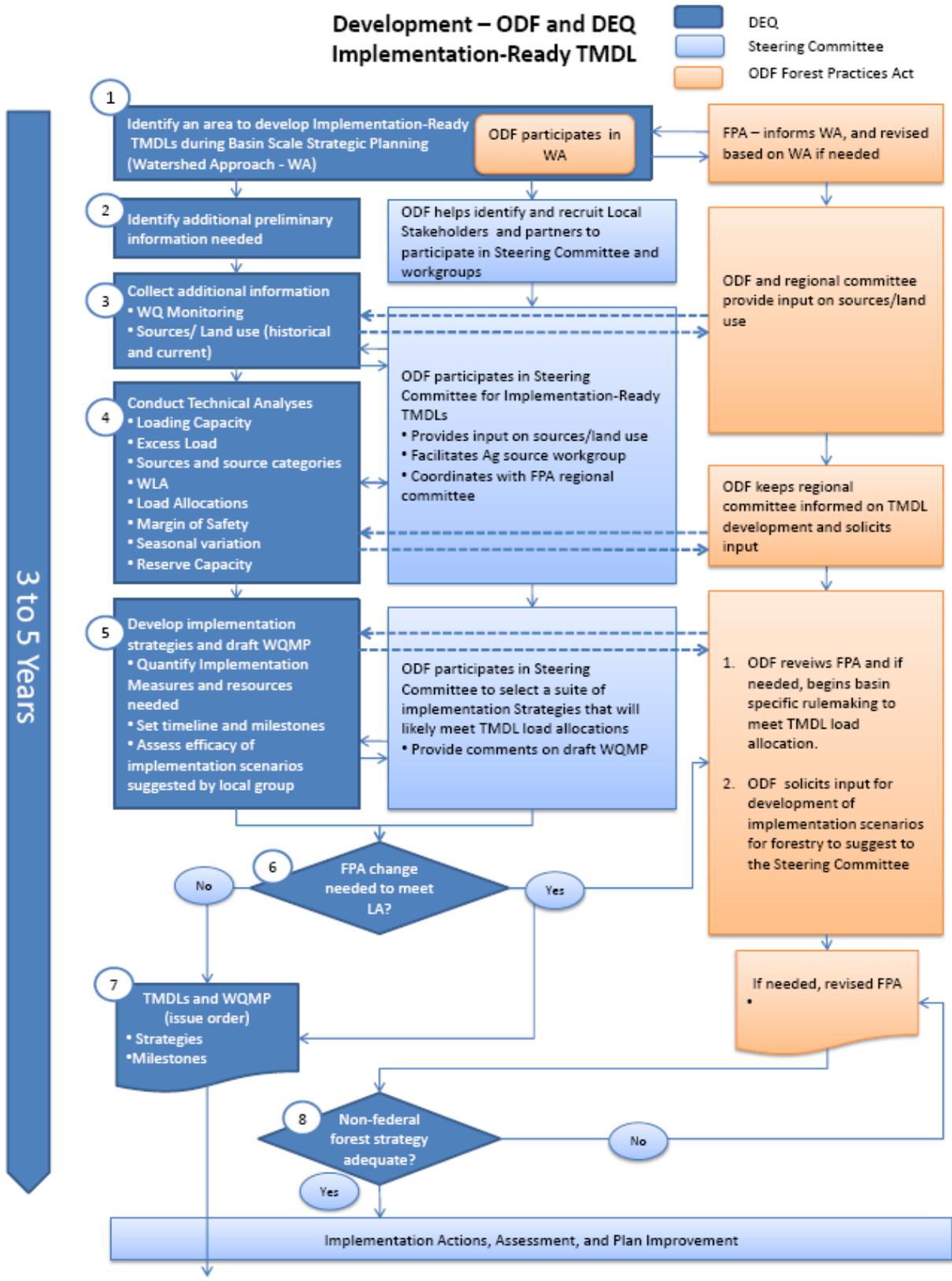
The department already has authority to specify actions that are needed to meet TMDL load allocations under the TMDL rule. [OAR 340-042-0040(5)(b)]

Attachment A

TMDL related flow charts

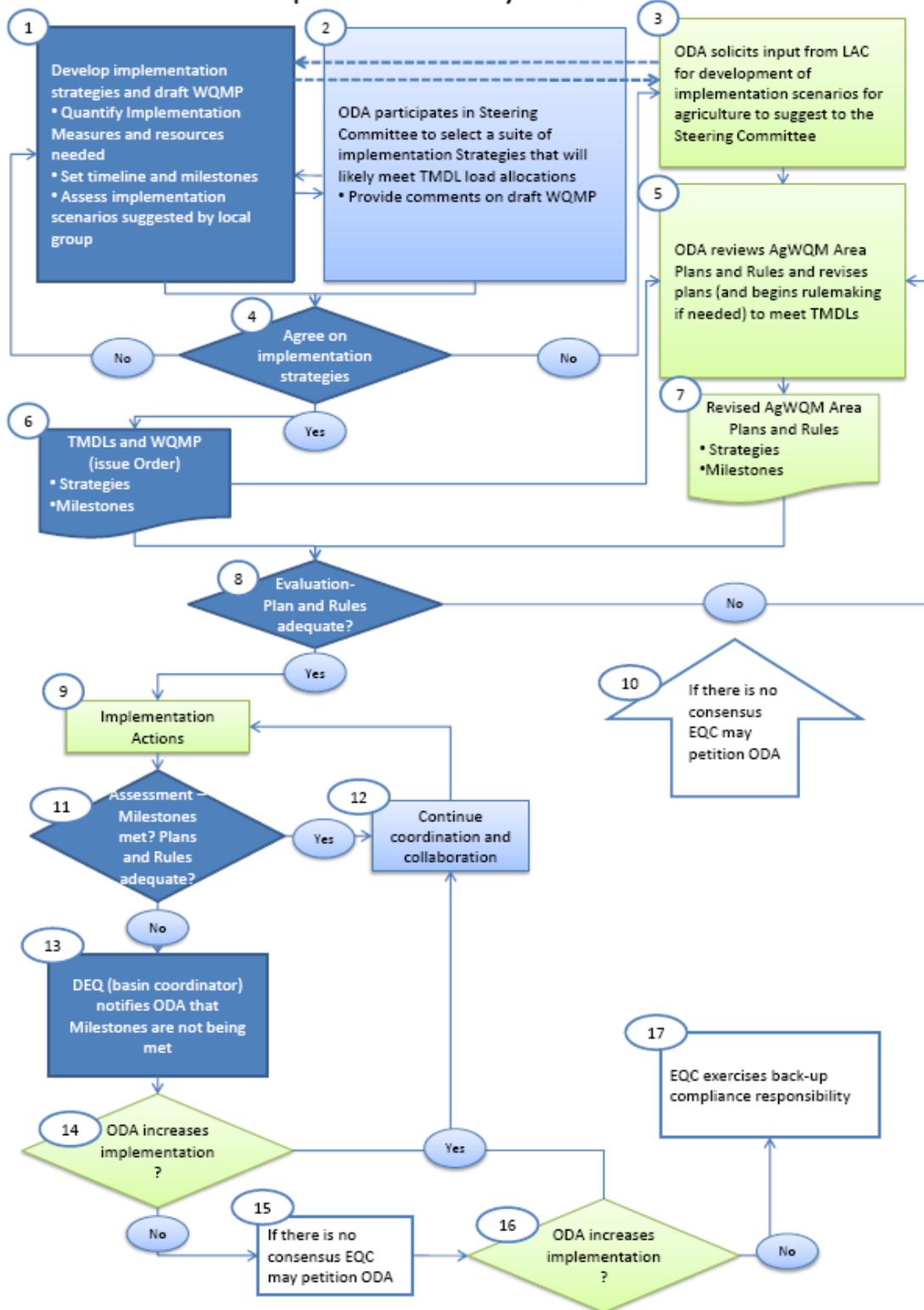




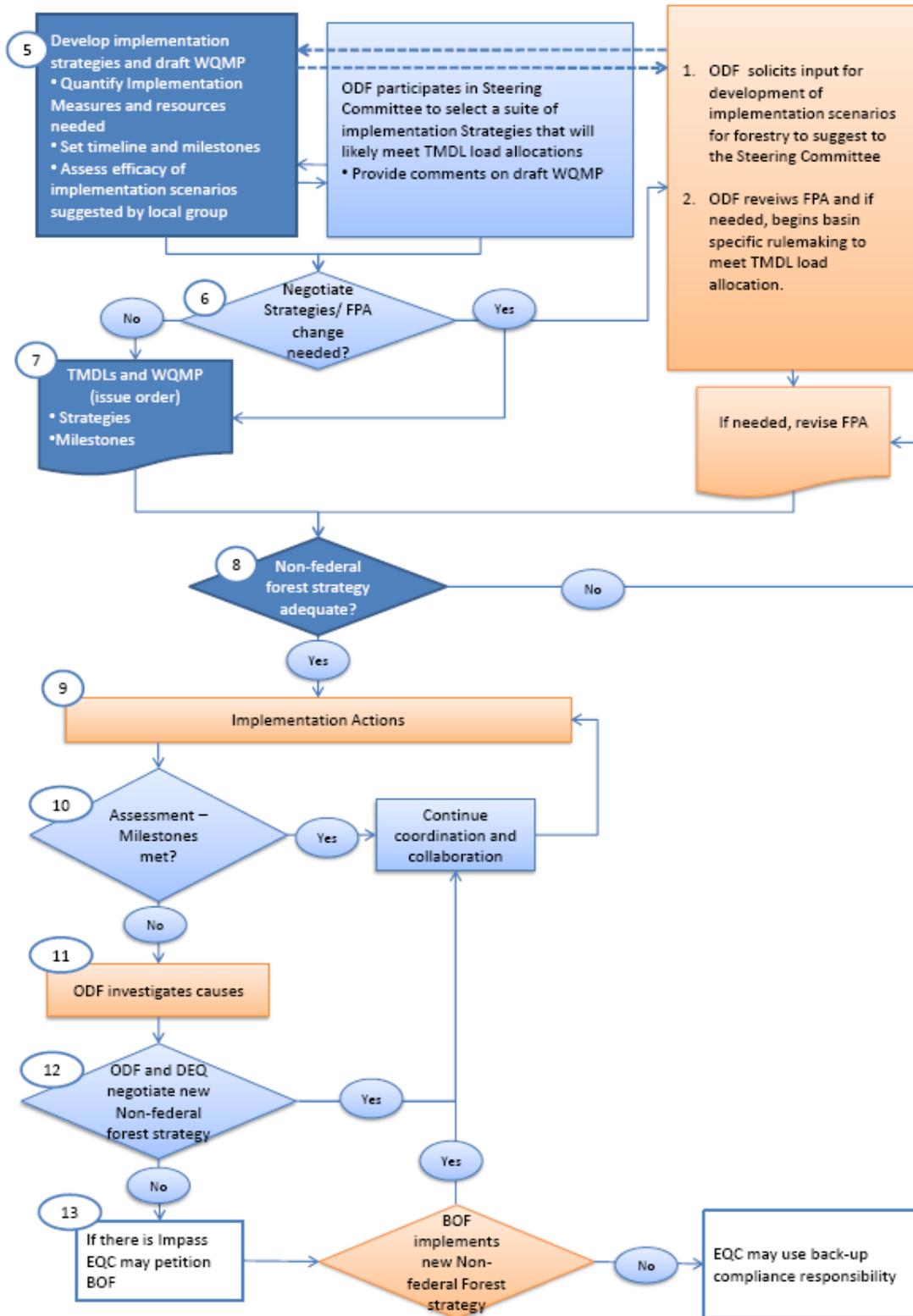




### Implementation – ODA Implementation-Ready TMDL



### Implementation – ODF Implementation-Ready TMDL



**Attachment B**

## DIVISION 42

## TOTAL MAXIMUM DAILY LOADS (TMDLS)

340-042-0025

## Policy, Purpose and Effect

(1) The public policy of the State of Oregon is to protect, maintain, and improve the quality of waters of the state for beneficial uses and to provide for prevention, abatement, and control of water pollution. To achieve and maintain water quality standards, the Environmental Quality Commission may impose limitations and controls including Total Maximum Daily Loads (TMDLs), wasteload allocations for point sources, and load allocations for nonpoint sources.

(2) The policy of the Environmental Quality Commission is to have the Department of Environmental Quality establish TMDLs, including wasteload and load allocations, and have responsible sources meet these allocations through compliance with discharge permits or other strategies developed in sector or source-specific implementation plans. These measures must achieve and maintain water quality standards and restore waters of the state that are water quality limited.

(3) These rules establish procedures for developing, issuing and implementing TMDLs as required by the Federal Water Pollution Control Act Section 303(d) (33 USC Section 1313(d)) and authorized by Oregon statutes to ensure that state water quality standards are met and beneficial uses protected.

(4) The Department of Environmental Quality will review any changes to Federal Water Pollution Control Act Section 303(d) or implementing regulations in 40 CFR Part 130 promulgated after the effective date of these rules. The Department may subsequently recommend that the Environmental Quality Commission amend, repeal, or adopt new rules. Rules adopted by the Commission remain in effect until the Commission takes action on the recommendations.

[Publications: Publications referenced are available from the agency.]

Stat. Auth.: ORS 468.020, ORS 468B.020, ORS 468B.030, ORS 468B.035 & ORS 468B.110

Stats. Implemented: ORS 468B.020, ORS 468B.110

Hist.: DEQ 18-2002, f. & cert. ef. 12-20-02

340-042-0030

## Definitions

In addition to the definitions provided in ORS 468.005, 468B.005, OAR 340-041-0006 and 340-045-0010, unless otherwise required by context, the following definitions apply to OAR chapter 340, division 42.

(1) "Background Sources" include all sources of pollution or pollutants not originating from human activities. In the context of a TMDL, background sources may also include anthropogenic sources of

a pollutant that the Department or another Oregon state agency does not have authority to regulate, such as pollutants emanating from another state, tribal lands or sources otherwise beyond the jurisdiction of the state.

(2) "Designated Management Agency (DMA)" means a federal, state, or local governmental agency that has legal authority over a sector or source contributing pollutants, and is identified as such by the Department of Environmental Quality in a TMDL.

(3) "Director" means the Director of the Department of Environmental Quality or the Director's authorized designee.

(4) "Hydrologic Unit Code (HUC)" means a multi-scale numeric code used by the U.S. Geological Survey to classify major areas of surface drainage in the United States. The code includes fields for geographic regions, geographic sub regions, major river basins, and subbasins. The third field of the code generally corresponds to the major river basins named in OAR chapter 340, division 41. The fourth field generally corresponds to the subbasins typically addressed in TMDLs.

(5) "Local Advisory Group" means a group of people with experience and interest in a specific watershed or subbasin that is designated by the Department to provide local input during TMDL development.

(6) "Management Strategies" means measures to control the addition of pollutants to waters of the state and includes application of pollutant control practices, technologies, processes, siting criteria, operating methods, best management practices or other alternatives.

(7) "Performance Monitoring" means monitoring implementation of management strategies, including sector-specific and source-specific implementation plans, and resulting water quality changes.

(8) "Pollutant" has the meaning provided in the Federal Water Pollution Control Act Section 502 (33 USC Section 1362).

(9) "Reasonable Assurance" means a demonstration that a TMDL will be implemented by federal, state, or local governments or individuals through regulatory or voluntary actions including management strategies or other controls.

(10) "Sector" means a category or group of similar nonpoint source activities such as forestry, agriculture, recreation, urban development, or mining.

(11) "Sector-Specific Implementation Plan" or "Source-Specific Implementation Plan" in the context of a TMDL means a plan for implementing a Water Quality Management Plan for a specific sector or source not subject to permit requirements in ORS 486.050. The elements of an implementation plan are described in OAR 340-042-0080.

(12) "Source" means any process, practice, activity, or resulting condition that causes or may cause pollution or the introduction of pollutants to a waterbody.

(13) "Subbasin" means the designation in the fourth field of the U.S. Geological Survey Hydrologic Unit Code.

(14) "Surrogate Measures" means substitute methods or parameters used in a TMDL to represent pollutants.

(15) "Total Maximum Daily Load (TMDL)" means a written quantitative plan and analysis for attaining and maintaining water quality standards and includes the elements described in OAR 340-042-0040. These elements include a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet state water quality standards, allocations of portions of that amount to the pollutant sources or sectors, and a Water Quality Management Plan to achieve water quality standards.

(16) "Waterbody" means any surface waters of the state.

(17) "Water Quality Management Plan (WQMP)" means the element of a TMDL describing strategies to achieve allocations identified in the TMDL to attain water quality standards. The elements of a WQMP are described in OAR 340-042-0040(4) (I).

[Publications: Publications referenced are available from the agency.]

Stat. Auth.: ORS 468.020, ORS 468B.020, ORS 468B.030, ORS 468B.035 & ORS 468B.110  
Stats. Implemented: ORS 468B.020, ORS 468B.110  
Hist.: DEQ 18-2002, f. & cert. ef. 12-20-02

340-042-0040

#### Establishing Total Maximum Daily Loads (TMDLs)

(1) The Department will establish TMDLs for pollutants in waters of the state that are listed in accordance with the Federal Water Pollution Control Act Section 303(d) (33 USC Section 1313(d)).

(2) The Department will group stream segments and other waterbodies geographically by subbasin and develop TMDLs for those subbasins, unless it determines another approach is warranted.

(3) The Department will prioritize and schedule TMDLs for completion considering the following factors:

- (a) Severity of the pollution,
- (b) Uses of the water,
- (c) Availability of resources to develop TMDLs,
- (d) Specific judicial requirements, and
- (e) Any other relevant information.

(4) A TMDL will include the following elements:

- (a) Name and location. This element describes the geographic area for which the TMDL is developed and includes maps as appropriate.

- (b) Pollutant identification. This element identifies the pollutants causing impairment of water quality that are addressed in the TMDL.
- (c) Water quality standards and beneficial uses. This element identifies the beneficial uses in the basin and the relevant water quality standards, including specific basin standards established in OAR 340-041-0202 through 340-041-0975. The beneficial use that is most sensitive to impairment by the pollutant or pollutants addressed in the TMDL will be specified.
- (d) Loading capacity. This element specifies the amount of a pollutant or pollutants that a waterbody can receive and still meet water quality standards. The TMDL will be set at a level to ensure that loading capacity is not exceeded. Flow assumptions used in the TMDL will be specified.
- (e) Excess load. This element evaluates, to the extent existing data allow, the difference between the actual pollutant load in a waterbody and the loading capacity of that waterbody.
- (f) Sources or source categories. This element identifies the pollutant sources and estimates, to the extent existing data allow, the amount of actual pollutant loading from these sources. The TMDL will establish wasteload allocations and load allocations for these sources. The Department will use available information and analyses to identify and document sources.
- (g) Wasteload allocations. This element determines the portions of the receiving water's loading capacity that are allocated to existing point sources of pollution, including all point source discharges regulated under the Federal Water Pollution Control Act Section 402 (33 USC Section 1342).
- (h) Load allocations. This element determines the portions of the receiving water's loading capacity that are allocated to existing nonpoint sources of pollution or to background sources. Load allocations are best estimates of loading, and may range from reasonably accurate estimates to gross allotments depending on the availability of data and appropriate techniques for predicting loading. Whenever reasonably feasible, natural background and anthropogenic nonpoint source loads will be distinguished from each other.
- (i) Margin of safety. This element accounts for uncertainty related to the TMDL and, where feasible, quantifies uncertainties associated with estimating pollutant loads, modeling water quality and monitoring water quality. The TMDL will explain how the margin of safety was derived and incorporated into the TMDL.
- (j) Seasonal variation. This element accounts for seasonal variation and critical conditions in stream flow, sensitive beneficial uses, pollutant loading and water quality parameters so that water quality standards will be attained and maintained during all seasons of the year.
- (k) Reserve capacity. This element is an allocation for increases in pollutant loads from future growth and new or expanded sources. The TMDL may allocate no reserve capacity and explain that decision.
- (l) Water quality management plan (WQMP). This element provides the framework of management strategies to attain and maintain water quality standards. The framework is designed to work in conjunction with detailed plans and analyses provided in sector-specific or source-specific implementation plans. The WQMP will address the following:

- (A) Condition assessment and problem description.
- (B) Goals and objectives.
- (C) Proposed management strategies designed to meet the wasteload allocations and load allocations in the TMDL. This will include a categorization of sources and a description of the management strategies proposed for each source category.
- (D) Timeline for implementing management strategies including:
  - (i) Schedule for revising permits,
  - (ii) Schedule for achieving appropriate incremental and measurable water quality targets,
  - (iii) Schedule for implementing control actions, and
  - (iv) Schedule for completing other measurable milestones.
- (E) Explanation of how implementing the management strategies will result in attainment of water quality standards.
- (F) Timeline for attainment of water quality standards.
- (G) Identification of persons, including Designated Management Agencies (DMAs), responsible for implementing the management strategies and developing and revising sector-specific or source-specific implementation plans.
- (H) Identification of sector-specific or source-specific implementation plans that are available at the time the TMDL is issued.
- (I) Schedule for preparation and submission of sector-specific or source-specific implementation plans by responsible persons, including DMAs, and processes that trigger revisions to these implementation plans.
- (J) Description of reasonable assurance that management strategies and sector-specific or source-specific implementation plans will be carried out through regulatory or voluntary actions.
- (K) Plan to monitor and evaluate progress toward achieving TMDL allocations and water quality standards including:
  - (i) Identification of persons responsible for monitoring, and
  - (ii) Plan and schedule for reviewing monitoring information and revising the TMDL.
- (L) Plan for public involvement in implementing management strategies.
- (M) Description of planned efforts to maintain management strategies over time.

(N) General discussion of costs and funding for implementing management strategies. Sector-specific or source-specific implementation plans may provide more detailed analyses of costs and funding for specific management strategies.

(O) Citation of legal authorities relating to implementation of management strategies.

(5) To determine allocations for sources identified in the TMDL, the Department:

(a) Will use water quality data analyses, which may include statistical analyses or mathematical models.

(b) May use surrogate measures to estimate allocations for pollutants addressed in the TMDL. The Department may use one or more surrogate measures for a pollutant that is difficult to measure or highly variable. A surrogate measure will be closely related to the pollutant, and may be easier to monitor and track. The TMDL will establish the correlation between the surrogate measure and pollutant.

(6) The Department will distribute wasteload and load allocations among identified sources and in doing so, may consider the following factors:

(a) Contributions from sources;

(b) Costs of implementing measures;

(c) Ease of implementation;

(d) Timelines for attainment of water quality standards;

(e) Environmental impacts of allocations;

(f) Unintended consequences;

(g) Reasonable assurances of implementation; and

(h) Any other relevant factor.

(7) After issuing the TMDL, the Department may revise the loading capacity and allocations to accommodate changed needs or new information. In making these revisions, the Department will comply with the public notice provisions in OAR 340-042-0050(2) and procedures for issuing TMDL orders in OAR 340-042-0060.

(8) If the Environmental Protection Agency establishes a TMDL addressing waterbodies in Oregon, the Department may prepare a WQMP to implement that TMDL

[Publications: Publications referenced are available from the agency.]

Stat. Auth.: ORS 468.020, ORS 468B.020, ORS 468B.030, ORS 468B.035 & ORS 468B.110

Stats. Implemented: ORS 468B.020, ORS 468B.110

Hist.: DEQ 18-2002, f. & cert. ef. 12-20-02

340-042-0050

#### Public Participation

- (1) The Department will establish a local advisory group or identify an existing group or forum to assist in developing a TMDL.
- (2) The Department will provide an opportunity for persons to review and comment on a draft TMDL and on proposals to revise loading capacity or allocations in a TMDL as follows:
  - (a) The Department will maintain a mailing list for each TMDL.
  - (b) The Department will provide notice and an opportunity for public comment on a proposed TMDL or revision to loading capacity or allocations in a TMDL. The public comment period will generally be 60 days.
  - (c) The Department will respond to public comments received during the public comment period and will prepare a written summary of responses.

Stat. Auth.: ORS 468.020, ORS 468B.020, ORS 468B.030, ORS 468B.035 & ORS 468B.110

Stats. Implemented: ORS 468B.020, ORS 468B.110

Hist.: DEQ 18-2002, f. & cert. ef. 12-20-02

340-042-0060

#### Issuing a Total Maximum Daily Load

- (1) The Director will issue a TMDL as an order. If the Environmental Protection Agency establishes a TMDL addressing waterbodies in Oregon, the Director may issue as an order a WQMP to implement that TMDL.
- (2) The order will be effective and final on the date signed by the Director.
- (3) Following issuance, the Department will submit the TMDL to the Environmental Protection Agency.
- (4) Within 20 business days after the Director signs the order, the Department will notify all affected NPDES permittees, nonpoint source DMAs identified in the TMDL and persons who provided formal public comment on the draft TMDL that the order has been issued and the summary of responses to comments is available.

Stat. Auth.: ORS 468.020, ORS 468B.020, ORS 468B.030, ORS 468B.035 & ORS 468B.110

Stats. Implemented: ORS 468B.020, ORS 468B.110

Hist.: DEQ 18-2002, f. & cert. ef. 12-20-02

340-042-0070

#### Requesting Reconsideration or Appealing a Total Maximum Daily Load

(1) Any person who participated in establishing a TMDL, including those who submitted comments and any other person entitled to seek judicial review of an order issuing a TMDL may request reconsideration by the Director in accordance with OAR 137-004-0080.

(2) A person may file a petition for judicial review of a final TMDL order as allowed by ORS 183.484.

Stat. Auth.: ORS 468.020, ORS 468B.020, ORS 468B.030, ORS 468B.035 & ORS 468B.110

Stats. Implemented: ORS 468B.020, ORS 468B.110

Hist.: DEQ 18-2002, f. & cert. ef. 12-20-02

340-042-0080

### Implementing a Total Maximum Daily Load

(1) Management strategies identified in a WQMP to achieve wasteload and load allocations in a TMDL will be implemented through water quality permits for those sources subject to permit requirements in ORS 468B.050 and through sector-specific or source-specific implementation plans for other sources. WQMPs will identify the sector and source-specific implementation plans required and the persons, including DMAs, responsible for developing and revising those plans.

(2) The Oregon Department of Forestry will develop and enforce implementation plans addressing state and private forestry sources as authorized by ORS 527.610 through 527.992 and according to OAR chapter 629, divisions 600 through 665. The Oregon Department of Agriculture will develop implementation plans for agricultural activities and soil erosion and enforce associated rules as authorized by ORS 568.900 through 568.933 and according to OAR chapter 603, divisions 90 and 95.

(3) Persons, including DMAs other than the Oregon Department of Forestry or the Oregon Department of Agriculture, identified in a WQMP as responsible for developing and revising sector-specific or source-specific implementation plans must:

(a) Prepare an implementation plan and submit the plan to the Department for review and approval according to the schedule specified in the WQMP. The implementation plan must:

(A) Identify the management strategies the DMA or other responsible person will use to achieve load allocations and reduce pollutant loading;

(B) Provide a timeline for implementing management strategies and a schedule for completing measurable milestones;

(C) Provide for performance monitoring with a plan for periodic review and revision of the implementation plan;

(D) To the extent required by ORS 197.180 and OAR chapter 340, division 18, provide evidence of compliance with applicable statewide land use requirements; and

(E) Provide any other analyses or information specified in the WQMP.

(b) Implement and revise the plan as needed.

(4) For sources subject to permit requirements in ORS 468B.050, wasteload allocations and other management strategies will be incorporated into permit requirements.

Stat. Auth.: ORS 468.020, ORS 468B.020, ORS 468B.030, ORS 468B.035 & ORS 468B.110

Stats. Implemented: ORS 468B.020, ORS 468B.110

Hist.: DEQ 18-2002, f. & cert. ef. 12-20-02

**Attachment C****Title 40: Protection of Environment**[PART 130—WATER QUALITY PLANNING AND MANAGEMENT](#)[Browse Previous](#) | [Browse Next](#)

§ 130.7 Total maximum daily loads (TMDL) and individual water quality-based effluent limitations.

(a) *General.* The process for identifying water quality limited segments still requiring wasteload allocations, load allocations and total maximum daily loads (WLA/LAs and TMDLs), setting priorities for developing these loads; establishing these loads for segments identified, including water quality monitoring, modeling, data analysis, calculation methods, and list of pollutants to be regulated; submitting the State's list of segments identified, priority ranking, and loads established (WLA/LAs/TMDLs) to EPA for approval; incorporating the approved loads into the State's WQM plans and NPDES permits; and involving the public, affected dischargers, designated areawide agencies, and local governments in this process shall be clearly described in the State Continuing Planning Process (CPP).

(b) Identification and priority setting for water quality-limited segments still requiring TMDLs.

(1) Each State shall identify those water quality-limited segments still requiring TMDLs within its boundaries for which:

(i) Technology-based effluent limitations required by sections 301(b), 306, 307, or other sections of the Act;

(ii) More stringent effluent limitations (including prohibitions) required by either State or local authority preserved by section 510 of the Act, or Federal authority (law, regulation, or treaty); and

(iii) Other pollution control requirements (e.g., best management practices) required by local, State, or Federal authority are not stringent enough to implement any water quality standards (WQS) applicable to such waters.

(2) Each State shall also identify on the same list developed under paragraph (b)(1) of this section those water quality-limited segments still requiring TMDLs or parts thereof within its boundaries for which controls on thermal discharges under section 301 or State or local requirements are not stringent enough to assure protection and propagation of a balanced indigenous population of shellfish, fish and wildlife.

(3) For the purposes of listing waters under §130.7(b), the term “water quality standard applicable to such waters” and “applicable water quality standards” refer to those water quality standards established under section 303 of the Act, including numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements.

(4) The list required under §§130.7(b)(1) and 130.7(b)(2) of this section shall include a priority ranking for all listed water quality-limited segments still requiring TMDLs, taking into account the severity of the pollution and the uses to be made of such waters and shall identify the pollutants causing or expected to cause violations of the applicable water quality standards. The priority ranking shall specifically include the identification of waters targeted for TMDL development in the next two years.

(5) Each State shall assemble and evaluate all existing and readily available water quality-related data and information to develop the list required by §§130.7(b)(1) and 130.7(b)(2). At a minimum “all existing and readily available water quality-related data and information” includes but is not limited to all of the existing and readily available data and information about the following categories of waters:

(i) Waters identified by the State in its most recent section 305(b) report as “partially meeting” or “not meeting” designated uses or as “threatened”;

(ii) Waters for which dilution calculations or predictive models indicate nonattainment of applicable water quality standards;

(iii) Waters for which water quality problems have been reported by local, state, or federal agencies; members of the public; or academic institutions. These organizations and groups should be actively solicited for research they may be conducting or reporting. For example, university researchers, the United States Department of Agriculture, the National Oceanic and Atmospheric Administration, the United States Geological Survey, and the United States Fish and Wildlife Service are good sources of field data; and

(iv) Waters identified by the State as impaired or threatened in a nonpoint assessment submitted to EPA under section 319 of the CWA or in any updates of the assessment.

(6) Each State shall provide documentation to the Regional Administrator to support the State's determination to list or not to list its waters as required by §§130.7(b)(1) and 130.7(b)(2). This documentation shall be submitted to the Regional Administrator together with the list required by §§130.7(b)(1) and 130.7(b)(2) and shall include at a minimum:

(i) A description of the methodology used to develop the list; and

(ii) A description of the data and information used to identify waters, including a description of the data and information used by the State as required by §130.7(b)(5); and

(iii) A rationale for any decision to not use any existing and readily available data and information for any one of the categories of waters as described in §130.7(b)(5); and

(iv) Any other reasonable information requested by the Regional Administrator. Upon request by the Regional Administrator, each State must demonstrate good cause for not including a water or waters on the list. Good cause includes, but is not limited to, more recent or accurate data; more sophisticated water quality modeling; flaws in the original analysis that led to the water being listed in

the categories in §130.7(b)(5); or changes in conditions, e.g., new control equipment, or elimination of discharges.

(c) Development of TMDLs and individual water quality based effluent limitations.

(1) Each State shall establish TMDLs for the water quality limited segments identified in paragraph (b)(1) of this section, and in accordance with the priority ranking. For pollutants other than heat, TMDLs shall be established at levels necessary to attain and maintain the applicable narrative and numerical WQS with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality.

Determinations of TMDLs shall take into account critical conditions for stream flow, loading, and water quality parameters.

(i) TMDLs may be established using a pollutant-by-pollutant or biomonitoring approach. In many cases both techniques may be needed. Site-specific information should be used wherever possible.

(ii) TMDLs shall be established for all pollutants preventing or expected to prevent attainment of water quality standards as identified pursuant to paragraph (b)(1) of this section. Calculations to establish TMDLs shall be subject to public review as defined in the State CPP.

(2) Each State shall estimate for the water quality limited segments still requiring TMDLs identified in paragraph (b)(2) of this section, the total maximum daily thermal load which cannot be exceeded in order to assure protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife. Such estimates shall take into account the normal water temperatures, flow rates, seasonal variations, existing sources of heat input, and the dissipative capacity of the identified waters or parts thereof. Such estimates shall include a calculation of the maximum heat input that can be made into each such part and shall include a margin of safety which takes into account any lack of knowledge concerning the development of thermal water quality criteria for protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife in the identified waters or parts thereof.

(d) *Submission and EPA approval.* (1) Each State shall submit biennially to the Regional Administrator beginning in 1992 the list of waters, pollutants causing impairment, and the priority ranking including waters targeted for TMDL development within the next two years as required under paragraph (b) of this section. For the 1992 biennial submission, these lists are due no later than October 22, 1992. Thereafter, each State shall submit to EPA lists required under paragraph (b) of this section on April 1 of every even-numbered year. For the year 2000 submission, a State must submit a list required under paragraph (b) of this section only if a court order or consent decree, or commitment in a settlement agreement dated prior to January 1, 2000, expressly requires EPA to take action related to that State's year 2000 list. For the year 2002 submission, a State must submit a list required under paragraph (b) of this section by October 1, 2002, unless a court order, consent decree or commitment in a settlement agreement expressly requires EPA to take an action related to that State's 2002 list prior to October 1, 2002, in which case, the State must submit a list by April 1, 2002. The list of waters may be submitted as part of the State's biennial water quality report required by §130.8 of this part and section 305(b) of the CWA or submitted under separate cover. All WLAs/LAs and TMDLs established under paragraph (c) for water quality limited segments shall

continue to be submitted to EPA for review and approval. Schedules for submission of TMDLs shall be determined by the Regional Administrator and the State.

(2) The Regional Administrator shall either approve or disapprove such listing and loadings not later than 30 days after the date of submission. The Regional Administrator shall approve a list developed under §130.7(b) that is submitted after the effective date of this rule only if it meets the requirements of §130.7(b). If the Regional Administrator approves such listing and loadings, the State shall incorporate them into its current WQM plan. If the Regional Administrator disapproves such listing and loadings, he shall, not later than 30 days after the date of such disapproval, identify such waters in such State and establish such loads for such waters as determined necessary to implement applicable WQS. The Regional Administrator shall promptly issue a public notice seeking comment on such listing and loadings. After considering public comment and making any revisions he deems appropriate, the Regional Administrator shall transmit the listing and loads to the State, which shall incorporate them into its current WQM plan.

(e) For the specific purpose of developing information and as resources allow, each State shall identify all segments within its boundaries which it has not identified under paragraph (b) of this section and estimate for such waters the TMDLs with seasonal variations and margins of safety, for those pollutants which the Regional Administrator identifies under section 304(a)(2) as suitable for such calculation and for thermal discharges, at a level that would assure protection and propagation of a balanced indigenous population of fish, shellfish and wildlife. However, there is no requirement for such loads to be submitted to EPA for approval, and establishing TMDLs for those waters identified in paragraph (b) of this section shall be given higher priority.

[50 FR 1779, Jan. 11, 1985, as amended at 57 FR 33049, July 24, 1992; 65 FR 17170, Mar. 31, 2000; 66 FR 53048, Oct. 18, 2001]