

Measurable Progress Draft Definition

Introduction

A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards. A TMDL consists of two parts: *waste load allocations*, associated with permitted discharges and *load allocations*, associated with other sources of pollutants. When a TMDL is established, Ecology incorporates *waste load allocations* into the National Pollutant Discharge Elimination System (NPDES) permits and Best Management Practices are developed to manage *load allocations*. Washington State Department of Ecology has flexibility in how and when a TMDL is developed.

A traditional TMDL process begins with calculating waste load and load allocations and then reducing sources of pollutants. Because it can take a long time to gather data for the allocations, a traditional TMDL can take years or decades to complete and implement. Since there are competing priorities for the resources that can be devoted to the development of a specific TMDL, progress on addressing water quality issues can be made by taking interim actions that are focused on making immediate source reductions while collecting data at the same time. As a collaborative effort, this leverages the abilities and resources of all the waterbody stakeholders and fosters a level of cooperation and creativity that ultimately leads to more immediate environmental improvements to water quality.

In 2004, the State of Washington listed the Spokane River as impaired for toxics, in particular PCBs and dioxins. In 2011, Ecology, in consultation with the EPA and Spokane Tribe of Indians, included language in the NPDES permits for the Spokane River dischargers in Washington that requires the permittees to create and participate in the Spokane River Regional Toxics Task Force (SRRTTF), whose goal is to develop a comprehensive plan to bring the Spokane River into compliance with applicable water quality standards for PCBs. The permits state if Ecology determines that the SRRTTF is failing to make measurable progress toward meeting applicable water quality criteria for PCBs, Ecology would be obligated to proceed with development of a TMDL in the Spokane River for PCBs or determine an alternative to ensure water quality standards are met.

In January 2012, Ecology, along with other organizations, signed a Memorandum of Agreement (MOA) formally establishing the Spokane River Regional Toxics Task Force (SRRTTF). The MOA outlines an innovative, adaptive management approach to achieve applicable water quality standards¹. Washington dischargers that hold NPDES permits for the river must participate in the Task Force.

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¹ In December 2013, EPA published its "Long-Term Vision for Assessment, Restoration, and Protection under the Clean Water Act Section 303(d) Program." The SRRTTF aligns with two of the six key goals: *engagement* (actively engaging the public and other stakeholders to improve and protect water quality, and *alternatives* (use alternative approaches, in addition to TMDLs, that incorporate adaptive management . . .) Ref: [A Long-Term Vision for Assessment, Restoration, and Protection under the Clean Water Act Section 303\(d\) Program](#).

43 The Task Force’s vision is to identify and implement the actions needed to meet applicable water quality
44 standards. The Washington permits state that if Ecology determines that the Task Force is failing to
45 make measurable progress toward meeting applicable water criteria for PCBs, Ecology is obligated “to
46 proceed with development of a TMDL in the Spokane River for PCBs or determine an alternative to
47 ensure water quality standards are met.” (SRRTTF Memorandum of Agreement).

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48 In other words, measurable progress is the actions of the Task Force in developing a comprehensive
49 plan reducing PCBs in the Spokane River and making progress toward achieving the applicable water
50 quality criteria for PCBs. Stakeholders contribute to measurable progress through participating in the
51 activities of the Task Force.

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52 How the Definition Was Developed

53 As a result of a series of listening meetings with interested parties and members of the SRRTTF, Ecology
54 collated ideas and opinions about the meaning of measurable progress. Ecology summarized responses
55 from the sessions into the following themes: collaboration and communication, geography, goals,
56 timeframes, point vs. nonpoint sources, data gaps, metrics, and fairness. For each theme, participants
57 expressed a diversity of opinions, but there were areas of general agreement as well.

58 In evaluating the themes Ecology concluded that:

- 59 1) It is important to define measurable progress in a timely manner for use in the next permit
60 cycle. However, determination of measurable progress is ongoing and achieving the goal of
61 bringing the Spokane River into compliance with applicable water quality standards for PCBs,
62 may take several permit cycles.
- 63 2) There is a wide variety of metrics that can demonstrate measurable progress. Metrics are the
64 specific facts and data used to evaluate progress. Metrics fall into three broad categories as:
65 a. Inputs: organizing activities
66 b. Outputs: activities and work products
67 c. Outcomes: Progress toward compliance with the applicable water quality criteria for
68 PCBs in the Spokane River,
- 69 3) The relative levels of progress made in the areas of inputs, outputs, and outcomes changes over
70 time. For example, progress made relative to inputs is likely greater early in the life of the Task
71 Force as the SRRTTF develops the structures, systems, and plans needed to conduct its business.
72 Over time, outcomes will tend to dominate the level of progress made,

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73 Adaptive Management

74 The evaluation of measurable progress is an adaptive management concept which focuses on PCB
75 reductions in the river while fostering the collaborative vision of the Task Force. Both inputs (organizing
76 and working collaboratively) and outputs (creating work products) must occur in order to achieve
77 outcomes (toxics reductions and environmental/health goals).

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78 At the end of each permit cycle, Ecology makes a measurable progress determination. The agency
79 makes the determination by assessing status against three fundamental criterion:

- 107 1) Is the Task Force still working together in a collaborative manner?
- 108 2) Is the Task Force still moving forward on activities that will lead to identification of sources
- 109 reduction of toxics in the river, the development of best management practices, and a
- 110 comprehensive plan for progress toward achieving PCB water quality standards?
- 111 3) Is there evidence that the comprehensive plan is making progress towards achieving the
- 112 applicable water criteria for PCBs in the Spokane River?

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Deleted: If the answer to question 1) or 2) is "no," then the Task Force is not achieving its stated purpose, vision, or goals and Ecology will develop a TMDL or alternative process to achieve the water quality standards.

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115 Ecology recognizes that the environmental response to reductions in PCB loading is complex, which

116 reinforces the need for an innovative adaptive management approach. If the answer to any of the above

117 questions is "no," then Ecology will reevaluate the Task Force activities and results. In this adaptive

118 management step, Ecology and the Task Force will identify actions and implement changes needed to

119 make progress toward achieving applicable water quality standards for PCBs.

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120 Environmental response will not be the only measure used to assess outcomes. The difficult nature of

121 reducing PCB contamination requires Ecology to also evaluate progress towards actual source

122 reductions and permit compliance. PCBs come from a variety of sources: past management of PCB

123 materials, current use of every-day products that contain trace amounts, and even unknown sources.

124 Removal of PCBs from the environment may result in immediate reductions in water column and

125 sediment concentrations, whereas the response in fish will lag behind the change in water quality.

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127 The Measurable Progress determination process is diagrammed in Figure 1. The criteria used for the

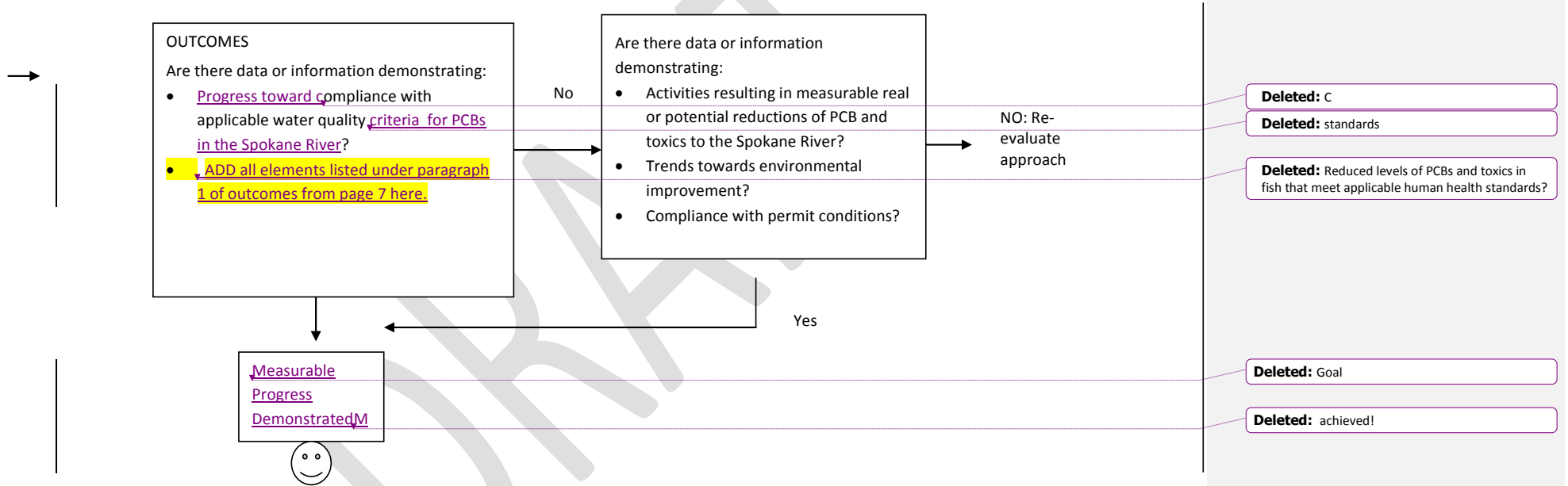
128 evaluation are in Attachment A.

Deleted: If no source reduction actions are occurring and/or permittees are not in compliance with permit conditions then the Task Force is not achieving its stated purpose, vision, or goals and Ecology will develop a TMDL or alternative process to achieve the water quality standards.

Figure 1

Task Force Vision Statement

The Regional Toxics Task Force will work collaboratively to characterize the sources of toxics in the Spokane River and identify and implement appropriate actions needed to make measurable progress towards meeting applicable water quality standards for the State of Washington, State of Idaho, and The Spokane Tribe of Indians and in the interests of public and environmental health.



Attachment A

Criteria relating to the evaluation of INPUTS

Inputs focus on the activities needed for the SRRTTF to organize, function, and achieve results. Examples include signing the MOA, convening regular meetings, seeking financial assistance, and budgeting. Inputs are important because they lead to trust, collaboration and agreement on actions needed to achieve results. Measures include numbers of key decisions, meetings, and actions directed towards funding the Task Force activities. Inputs are important during the entire process but of higher priority during the first permit cycle. ▼

Was a Regional Toxics Task Force created?

Was the Regional Toxics Task Force functional; did the signatories to the MOA:

- Participate in the functions of the Task Force?
- Work collaboratively and in a cooperative effort?
- Provide Ecology with the details of the organizational structure, specific goals, funding and governing documents of the Task Force, in accordance with the MOA?
- Work towards achieving the specific goals for the Task Force during the 2011 to 2016 permit cycle?

Did the Task Force provide a forum for the review and discussion of Spokane River toxics issues?

Did the Task Force establish and maintain a clearinghouse for data, reports, minutes, and other information gathered, collected, or developed by the Task Force?

Was there participation in public education and engagement to advance the understanding of Spokane River toxics issues?

Did the Task Force establish an independent community technical advisor(s)?

Did the Task Force identify and establish funding mechanisms?

Criteria relating to the evaluation of OUTPUTS

Outputs are the activities and work products of the SRRTTF. Examples include reports, plans, studies, contracts, workshops, and permits. Outputs are important because they fill in the gaps with respect to the data and processes needed to identify and implement source reductions. Measures include numbers of reports, plans, studies, contracts, workshops, and permits that contribute towards achieving source reductions. Outputs are important to the entire process but of higher priority during the first permit cycle. ▼

Did the Task Force engage in activities that better characterize the amounts, sources, and locations of PCBs and other toxics in the Spokane River?

- Incorporate findings from technical studies to advance understand of toxics in the river.
- Increase region-wide understanding of toxics in the Spokane River.
- Identify data gaps.
- Collect necessary data on PCBs and other toxics.
- Engage in technical studies.

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Did the Task Force further analyze the existing and newly collected data, including:

- Results of past and recent studies and implementation actions including those conducted by individual dischargers within their operations and/or service areas?
- Review of data, studies, and control measures?

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Did the Task Force work towards *identifying and implementing or begin implementing appropriate actions* needed to **make measurable progress** towards meeting **applicable water quality standards for PCBs**?

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- Review of proposed Toxic Management Plans, Source Management Plans, and Best Management Practices.
- Develop recommendations and Best Management Practices for specific actions that will reduce toxics.
- Develop a comprehensive Spokane River toxics reduction plan.
- Improvements to treatment facilities

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Did the Task Force provide technical education information to the public?

- Websites
- Workshops
- Outreach activities

Ecology will also evaluate if specific source reduction activities have been taken, and the amount of PCB that has been removed as a result of those activities. If source reduction activities do not result in decreasing toxics in the river, then Ecology and the Task Force will reevaluate the approach.

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Criteria relating to the evaluation of OUTCOMES

Outcomes are the environmental results in the river and quantifiable source reduction actions. Examples of measures include decreasing levels of PCB in fish and the water column, progress toward achievement of water quality standards, regulatory reform to eliminate new PCBs from entering the environment, permit compliance status and environmental trends as well as measurable amounts of PCB eliminated from river discharges, stormwater, and other sources. Outcomes are important because they measure the effectiveness of the actions that have been taken as well as the amount of PCB known to have been removed from the watershed. Outcomes are important throughout the entire process but of higher priority after the first permit cycle.

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Was there monitoring and assessment of the effectiveness of toxic reduction measures?

Is progress toward achieving applicable water quality criteria for PCBs being made?

Is progress toward meeting the interests of public and environmental health being achieved? Were actions implemented that:

- Reduced, removed, or isolated sources of PCBs from the river or watershed?
- Implemented actions recommended in the comprehensive Spokane River toxics reduction plan?
- Implemented identified Best Management Practices?

PCBs are persistent in the environment. Removal of PCBs from the environment may result in immediate reductions in water but slower reductions over time in fish. There may also be other unknown sources that cause environmental levels of PCBs to increase, even though the SRRTTF is actively engaged in source identification and reduction. Therefore, it may take several permit cycles before measures of PCBs in the environment demonstrate compliance with applicable water quality standards.