

State of Oregon
Department of Environmental Quality

**Industrial Stormwater Advisory Committee
Meeting 6- January 19, 2010**

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Subject: Discharges to Impaired Waterbodies

EPA's 2008 MSGP includes new, more stringent requirements for new discharges to impaired waterbodies that do not meet water quality standards (i.e. waters listed on the state's 303(d) list with an approved or established Total Maximum Daily Load (TMDL) and those where a TMDL has not yet been developed). As a result, DEQ is considering options for developing new requirements for discharges to impaired waterbodies.

This memorandum provides background information DEQ considered regarding new requirements promulgated by EPA and Washington's Department of Ecology and options for developing requirements for the Oregon's new industrial stormwater permits.

New Discharges to Impaired Waterbodies:

Background:

EPA's permit

New discharges that will discharge the pollutant(s) of concern are not eligible for permit coverage unless they submit data that establishes that the discharge will not cause or contribute to a water quality standards violation at the point of discharge to the waterbody or there is remaining Waste Load Allocation (WLA) in the TMDL.

DEQ's permits:

DEQ's permits do not have specific permit requirements for discharges to impaired waterbodies. Due to the Pinto Creek decision that was issued in December 2007, DEQ has been conducting case by case evaluations of new discharges of pollutants of concern to impaired waters without TMDLs before granting coverage under the permits.

Washington Department of Ecology's permit:

For *new discharges*, Ecology's permit has the same requirements as the MSGP.

DEQ's proposal for new permits:

For *new discharges*, the new permits will contain the same requirements as the MSGP. DEQ is developing the monitoring protocol to determine if these discharges are causing or contributing to a water quality standards violations. Once operating under the new permits, the new discharges will also have to meet numeric effluent limits for discharges to impaired waterbodies without a TMDL.

Existing Discharges to Impaired Waterbodies WITH TMDLs

Background:

EPA permit:

For *existing* discharges to an impaired waterbody with a TMDL, EPA will review the TMDL to determine if it applies to an individual discharger or industrial sector and whether additional requirements are necessary to comply with the TMDL or an individual permit is necessary. These facilities are not required to monitor for the pollutants of concern or meet any additional requirements unless they are notified by EPA during the permit issuance process. If additional requirements are necessary, EPA will solicit public comment and incorporate final limits as site specific terms in the general permit. Where a TMDL identifies that the waterbody may be impaired from upstream tributaries, EPA will also determine if additional controls are necessary for facilities discharging to these tributaries.

DEQ's permits:

The 1200-Z permit states that if a TMDL establishes a WLA for industrial stormwater, additional requirements or a different permit may be necessary. There are not many TMDLs that have specific WLAs for industrial stormwater, except the Columbia Slough TMDL. As a result, the 1200-COLS permit was developed based on the Columbia Slough TMDL and includes benchmarks for the pollutants of concern identified in the TMDL.

Washington Department of Ecology's permit:

For existing discharges to impaired waterbodies with TMDLs, Ecology's permit requires the following:

- Where Ecology has established a TMDL wasteload allocation and sampling requirements for the permittee's discharge, the permittee shall comply with all requirements of the TMDL.
- Where Ecology has established a TMDL general wasteload allocation for industrial stormwater discharges for a parameter present in the permittee's discharge, but has not identified specific requirements, Ecology will assume the permittee's compliance with the terms and conditions of the permit complies with the approved TMDL.
- Where Ecology has not established a TMDL wasteload allocation for industrial stormwater discharges for a parameter present in the permittee's discharge, but has not excluded these discharges, Ecology will assume the permittee's compliance with the terms and conditions of this permit complies with the approved TMDL.
- Where a TMDL for a parameter present in the permittee's discharge specifically precludes or prohibits discharges of stormwater associated with industrial activity, the Permittee is not eligible for coverage under this permit.

Ecology does not have any additional monitoring requirements in the permit for the facilities discharging to impaired waterbodies with TMDLs.

Options/Considerations for existing discharges to impaired waterbodies with TMDLs:

DEQ is reviewing Oregon's TMDLs to determine if stormwater discharges were considered in the source assessment of the TMDL, whether stormwater was identified as a significant source and if there is any reserve capacity for future growth or new sources. DEQ has not been consistent in how it considers and describes stormwater in the development of TMDLs. The TMDL and Stormwater programs are working together to better collaborate on how future TMDLs will address stormwater and how WLAs will be translated into permit conditions.

DEQ will further evaluate the TMDLs to determine if industrial facilities discharging to these waterbodies will be required to meet additional requirements to comply with the TMDLs. DEQ is considering the following issues in developing new permit requirements:

- Many of the TMDLs do not establish a specific WLA for industrial stormwater. In some TMDLs, industrial stormwater may be addressed through a general WLA for stormwater or a WLA for urban runoff. DEQ is considering in these instances, whether compliance with the terms of the new permit will meet the TMDL or if additional requirements are necessary.
- Under the MSGP, EPA is planning on evaluating whether any additional requirements are necessary to comply with the TMDL during the permit application process and incorporating site specific requirements into a facility's registration under the general permit, which will be subject to public notice and comment. Because many of Oregon's TMDLs do not have specific requirements for industrial stormwater, DEQ would need to examine how the TMDL was developed and whether industrial stormwater was considered a significant source of the impairment. If DEQ determined that industrial stormwater was a concern, DEQ would need to conduct a site specific evaluation of the facilities and receiving waterbody, which is difficult to do under a general permit, where similar permit requirements typically apply to a broad spectrum of facilities. DEQ typically conducts this type of site specific analysis in an individual permit.

For facilities that will be operating under the new 1200-COLS permit, DEQ is considering requiring these facilities to meet numeric effluent limits at the end of the pipe for the pollutants of concern identified in the TMDL (lead; E.coli; BOD; TSS as a surrogate for DDT/DDE, Dieldrin, Dioxin, and PCBs; and phosphorus).

Existing Discharges to Impaired Waterbodies WITHOUT TMDLs

Background:

EPA permit:

Existing discharges to an impaired waterbody without a TMDL are required to monitor their discharge to determine if the pollutant(s) of concern on the 303(d) list are present in their discharge. The facilities must monitor the pollutants of concern or the pollutants' indicator or surrogate pollutant. Facilities are not required to monitor for certain impairment pollutants (e.g., temperature, hydrologic modifications, pollutant for which no standard analytical method exists).

EPA developed a Water Locator Tool that facilities can use to determine whether they are discharging to an impaired waterbody. Facilities are required to notify EPA in the permit application whether they are discharging to an impaired waterbody and if their discharge contains any pollutants of concern. EPA will evaluate this information and notify the facilities in the permit issuance letter the impairment pollutants they must monitor during the permit term.

EPA's intent with impairment pollutant monitoring is to ensure that facilities are not causing or contributing to further impairment of the receiving stream. However, the MSGP is not clear if the monitoring results show that pollutant of concern is present in their discharge in concentrations above the water quality standards what additional actions the facility must take. Since this is a new permit requirement, EPA is just beginning to discuss the ramifications for these facilities. EPA Region 10 believes that these facilities would at a minimum need to conduct additional monitoring and meet the corrective action requirements in the permit.

DEQ's permit:

DEQ does not have specific requirements for existing discharges to impaired waterbodies without TMDL.

Washington Department of Ecology's permit:

For existing discharges to impaired waterbodies without a TMDL at the time of permit coverage, Ecology required that these facilities to meet numeric effluent limits for the impairment pollutants by June 2010. Facilities that can not meet this deadline, can request a compliance schedule by the end of this month. Ecology will require compliance as soon as possible, and no later than twenty-four months, or two complete wet seasons, after the effective date of the permit.

Ecology is not requiring facilities to meet numeric effluent limits for all impairment pollutants, but those they determined are typically present in industrial stormwater discharges (turbidity, pH, fecal coliform, bacteria, TSS, phosphorus, ammonia, copper, lead, mercury, zinc, and pentachlorophenol). Facilities will sample these pollutants on a quarterly basis. There are no additional requirements in the permit regarding what corrective actions a facility must take if they exceed these limits.

Options/Considerations for existing discharges to impaired waterbodies without TMDLs:

The Clean Water Act prohibits facilities discharging to impaired waterbodies that have the pollutants of concern present in their discharge from causing or contributing to a water quality standards violation. To protect the state's beneficial uses, DEQ is proposing that these facilities will be required in the new general permits to meet numeric effluent limits at the end of the pipe. This requirement does not apply to impairment pollutants that are exempt under EPA's permit (e.g., waterbodies listed for temperature).

DEQ considered the following options for regulating facilities discharging to impaired waterbodies on the 303(d) list that have the pollutants of concern present in their discharge:

- Option 1:
 - Facilities screen discharge to determine if pollutants of concern are present
 - If yes, conduct additional monitoring to determine if violating water quality standards (need to figure out what this monitoring looks like)
 - If yes, apply for individual permit with numeric effluent limits set at water quality standards at the end of the pipe.
- Option 2:
 - Facilities screen discharge to determine if pollutants of concern are present
 - If yes, numeric effluent limits in general permit set at water quality standards at the end of the pipe.

DEQ is proposing Option 2. DEQ prefers to continue to regulate these facilities under the new general permits. If DEQ required these facilities to obtain an individual permit, they would have to meet numeric effluent limits at the end of the pipe. Given that the same regulatory approach would apply under a general or individual permit, DEQ is considering establishing numeric effluent limits in the new general permits. Also, given DEQ's individual permit backlog, DEQ does not have the resources to issue a large amount of new individual permits to these sources.

Some facilities may request compliance schedules if more time is needed to meet the numeric effluent limits. DEQ is considering whether these facilities will be required to obtain an individual permit. It may be difficult to develop enforceable site specific, interim milestones under a general permit.

DEQ is still considering the following implementation issues:

- The new permits will contain numeric effluent limit concentrations based on the water quality standards. DEQ is currently evaluating whether facilities will be required to meet the acute or human health water quality standards.
- During the first year of permit coverage, facilities will screen their discharge to determine if the impairment pollutants are present in their discharge. If the pollutant(s) of concern are present, DEQ is considering when these facilities will be required to meet the numeric effluent limits (e.g., at the beginning of the second monitoring year).

Who May be affected by the New Requirements:

To assist with evaluating the potential scope of industries that may be affected by these new requirements, DEQ has developed a chart that identifies the impaired waterbodies in the state with approved TMDLs and those without TMDLs that are in urban areas that may have a high density of industrial facilities discharging to them. The chart also provides examples of pollutants of concern(s) that facilities may monitor under the new permits. There are not many impairment pollutants that facilities commonly monitor under the current permits (e.g., copper, lead and zinc). For example, the lower Willamette River is listed for iron, manganese, pH, PCBs, PAHs.

DEQ is considering having facilities use EPA's water locator tool to determine if they are discharging to an impaired waterbody and whether the pollutants of concern are likely to be present in their discharge. The facilities would report this information in their permit application. However, the information in the water locator tool may not always be up to date because it is based on state's most recent water quality assessment integrated report. DEQ's integrated report is updated every couple of years. For example, DEQ's 2004/2006 report will be updated in 2010. If DEQ issues an approved TMDL for a waterbody or modifies a water quality standard, the report and tool may not reflect this change. As a result, DEQ is considering what additional steps the agency or the facilities may take to verify that the information they are reporting on their application is correct. Another option is to include in the new permits a separate appendix that lists the facilities discharging to impaired waterbodies that will be required to meet the numeric effluent limits.