



State of Oregon Department of Environmental Quality

Draft Fiscal Impact Statement

Powder River Basin Total Maximum Daily Load for Bacteria

Introduction

Consistent with Oregon Revised Statute 468B.110 and OAR chapter 340 division 42, DEQ prepared a Total Maximum Daily Load and a Water Quality Management Plan to address bacteria impairments in the Powder River Basin. The TMDL and WQMP will be proposed for adoption by Oregon's Environmental Quality Commission, by reference, into OAR 340-042-0090. The TMDL and WQMP are supported by DEQ's Powder River Basin TMDL Technical Support Document. These draft documents will be available for public review during the comment period and hearing that will precede proposing the rule for adoption by the EQC.

Fee analysis

This rulemaking does not involve fees.

Statement of fiscal and economic impact

Fiscal and Economic Impact

Issuance and subsequent implementation of the proposed TMDL and WQMP may have fiscal or economic impacts on current and future operators of some: farms and ranches; reservoirs; irrigation conveyances; and federal, state and county lands or operations within the Powder River Basin. However, fiscal or economic impacts and costs of compliance would not be different than if the TMDL was issued as a department order.

This fiscal impact statement does not quantify the costs of on-going water quality impairment to beneficial uses of waters of the state. Implementation of this TMDL is intended to address water pollution, as required by the relevant sections of the federal Clean Water Act. The negative economic and health impacts of water pollution potentially affect all those who live, work and recreate within the basin, as well as those downstream. The externalized costs of existing water pollution may disproportionately negatively affect poor, rural, indigenous and minority communities in Oregon.

In contrast, costs of TMDL implementation are borne only by those entities contributing sources of pollutants to waterways. These costs can be reduced by these entities by choosing pollutant control or reduction strategies or options that align with their particular circumstance, perspective and/or business needs.

Translation or other formats

[Español](#) | [한국어](#) | [繁體中文](#) | [Русский](#) | [Tiếng Việt](#) | [العربية](#)
800-452-4011 | TTY: 711 | deqinfo@deq.oregon.gov

Statement of Cost of Compliance

Costs of compliance with this TMDL rule can include administrative and implementation costs. DEQ does not have specific information for potentially affected operations within the basin to determine economic impacts to particular landowners or business operators. Such impacts are expected to vary by pollutant sources, sizes and locations of activities and affected lands and the extent of any existing and effective, site-specific controls.

Members of the Powder River TMDL Rule Advisory Committee identified the following potential costs to be considered in economic analysis of Powder bacteria TMDL implementation, though without cost estimates or evaluation of how many or which implementers would be affected:

- Transportation costs of bringing project materials to rural areas
- “Match” costs for grant funded projects
- Maintenance or reconstruction costs of existing riparian fencing
- Costs of plan development and implementation for smaller entities, such as special districts

For each cost of compliance section below, potential fiscal or economic impacts for implementing pollutant controls are highly variable for the following reasons:

- Locations and seasonality of pollution sources and activities can vary from locations and seasonality of bacteria impairments.
- Pollution controls or activities may already be in place in some locations that prevent or reduce exceedances of water quality standards.
- Pollutant control strategies required in the WQMP vary by pollutant and source sector.
- Multiple pollution controls may be needed as some locations.
- The presence of buildings or transportation infrastructure may preclude pollution controls in some locations.
- DEQ does not have exhaustive information to determine all potential sources or what actions are currently occurring that could be modified or enhanced to prevent exceedances of water quality standards. Pollutant source assessment and allocations are identified by source sector, not individual property or activity.
- Varying acreages and locations of pollutant sources and significance of pollutant contributions.
- A range of organizational capacity exists for implementation plan development and there are varying levels of complexity needed in plans.

Where investments are necessary to meet TMDL targets and implementation requirements, DEQ identifies funding resources in the WQMP and online that include, but are not limited to, state and federal grants (including Clean Water Act Section 319 nonpoint source implementation grants) and below-market interest rate loans (that can include principal forgiveness) through the Clean Water State Revolving Fund program. Other state and

federal opportunities are provided on DEQ's water quality funding resource webpage: <https://www.oregon.gov/deq/wq/tmdls/Pages/TMDLs-Funding.aspx>

State and federal agencies

Several state and federal agencies will be assigned responsibility for developing plans and implementing management strategies to achieve cumulative pollutant load reductions, specified in the TMDL and WQMP. Costs incurred for complying with TMDLs adopted as rules are not different than costs for implementing TMDLs issued by department order. Grant and low interest loan funding is available to support implementation of pollution controls and watershed restoration actions required to meet TMDL requirements.

DEQ implements pollutant waste load allocations through NPDES permits. Because allocations are applied in permits upon evaluation for renewal or initial applications, this does not represent additional fiscal impact to DEQ for TMDL implementation.

Oregon Department of Forestry is responsible for developing plans for management strategies and overseeing implementation of state Forest Practices Act rules to achieve nonpoint source pollutant load allocations and meet water quality standards on non-federal forestlands (state, county, and private) within the basin, perform annual reporting and participate in monitoring and periodic progress reviews. However, aside from livestock grazing, forestland activities were not determined to be a source of bacteria to basin waterways. Because grazing on non-federal forest lands is regulated by Oregon Department of Agriculture or tribes, management strategies to reduce bacteria from non-federal forestlands in the basin are not required, so no fiscal impacts are anticipated for ODF as a result of this rule.

Oregon Department of Agriculture is responsible for developing plans for management strategies and overseeing implementation of practices to achieve nonpoint source bacteria load allocations and meet bacteria water quality standards on private or state lands for all agricultural activities within the basin, perform annual reporting and participate in monitoring and periodic progress reviews. Per ODA authorities described in state statutes and rules, a mix of existing regulatory programs and voluntary measures are implemented on agricultural lands or related to agricultural activities, in partnership with local Soil Water Conservation Districts and Local Advisory Committees, to improve or protect water quality and land condition that impacts water quality. Administrative costs for implementing these existing rules and programs are not dependent on TMDLs, but ODA will incur administrative costs for development of a TMDL implementation plan. [At least one Powder River Basin TMDL Rule Advisory Committee member recommended additional education on land management impacts to water quality for agricultural owners/operators of land proximal to creeks, ditches and wetlands. When conducted specific to an action proposed by ODA in a TMDL implementation plan, ODA would incur additional administrative or implementation costs for such education.](#) Administrative and implementation costs for ODA and individual landowners/producers are not different for implementing TMDLs issued by department order than TMDLs adopted as rules. Financial incentives and technical assistance programs are available to assist private landowners. Grant and low interest loan funding is available to ODA, SWCDs, and individual landowners/operators to support

implementation of assessment, pollution controls and watershed restoration actions or land condition improvements that may be necessary to meet TMDL requirements.

Oregon Department of Transportation is responsible for implementing practices to achieve bacteria allocations related to highways within the basin. ODOT is required to comply with its DEQ-issued MS4 stormwater permit, including development of a statewide TMDL implementation plan. The plan must include practices to achieve TMDL allocations related to both stormwater discharges and other applicable nonpoint source discharges. Compliance costs are not different for ODOT for implementing TMDLs issued by department order than TMDLs adopted as rules.

Oregon Department of Fish and Wildlife manages the Elkhorn Wildlife Refuge for elk, deer and limited livestock grazing, which represent nonpoint sources of bacteria. DEQ concluded that most implementation strategies are included in existing management plans. However, during development of a TMDL implementation plan, ODFW will incur certain short-term administrative costs. Administrative and implementation costs are not different for implementing TMDLs issued by department order than TMDLs adopted as rules.

US Bureau of Reclamation is responsible for managing operation of three federal dams and reservoirs and the associated water delivery and drainage facilities, which represent sources of bacteria, to achieve nonpoint source bacteria load allocations. BOR will incur administrative and implementation costs in developing and implementing management strategies described in a TMDL implementation plan. Administrative and compliance costs are not different for implementing TMDLs issued by department order than TMDLs adopted as rules.

US Forest Service and US Bureau of Land Management are responsible for managing livestock grazing to achieve nonpoint source bacteria load allocations on forest land owned by the federal government. USFS and BLM lands make up approximately 32 percent and 18 percent, respectively, of the land area within the basin. Neither agency currently has a resource management plan in place for lands under their jurisdiction in the basin that dictate how riparian reserves are managed. BLM and USFS will incur administrative costs for development of TMDL implementation plans. These costs are not different for implementing TMDLs issued by department order than TMDLs adopted as rules.

[BLM estimated costs of approximately \\$75,000 to \\$200,000 for plan development. Additionally, implementation costs would include: riparian fencing at \\$12,000 to \\$15,000 per mile for an unknown number of miles; fence maintenance at \\$100 to \\$150 per mile for an unknown number of miles; seasonal hiring for fence maintenance at \\$25,000 to \\$50,000; and off-stream watering site development at \\$4000 to \\$6000 per site for an unknown number of sites. Approximately half of implementation costs would likely be borne by livestock grazing allotment permittees who enter into cooperative agreements. These costs would result in improved water quality and riparian health, which would benefit wildlife, fisheries and recreation.](#)

Local governments

Baker and Union Counties are responsible for developing plans and implementing practices to achieve bacteria load allocations for rural residential planning and development, building code administration and enforcement, onsite septic system permitting and compliance and operation of the county transportation systems within the basin. The counties will incur administrative costs for development of TMDL implementation plans. Administrative and implementation costs are not different for these entities for implementing TMDLs issued by department order than TMDLs adopted as rules. Financial incentives and technical assistance programs are available to assist local governments and private landowners. Grant or low interest loan funding are available to support implementation of assessment, pollution controls and watershed restoration actions or landscape improvements that may be necessary to meet TMDL requirements.

Baker City is responsible for developing plans and implementing practices to achieve bacteria allocations related to non-permitted municipal separate stormwater sewerage system, including from parks and other municipal properties discharging to waterways. Baker City will incur administrative costs for development of a TMDL implementation plan. Administrative and implementation costs are not different for Baker City for implementing TMDLs issued by department order than TMDLs adopted as rules.

The cities of Huntington and North Powder are required to comply with DEQ-issued permits for the discharge of treated domestic wastewater, which include limits to meet the E. coli criteria. There are no additional compliance costs related to the TMDL rule.

Public

Irrigation Districts – Baker Valley Irrigation District, Powder Valley Water Control District, Lower Powder River Irrigation District and Burnt River Irrigation District are responsible for developing plans and implementing practices to achieve bacteria load allocations related to maintenance and operation of their irrigation water conveyance and return water facilities. Irrigation districts will incur administrative costs for development of a TMDL implementation plan. Administrative and implementation costs are not different for implementing TMDLs issued by department order than TMDLs adopted as rules.

The proposed rule does not have a direct economic cost to the public at large. As a result of the proposed rule, DEQ expects that currently impaired beneficial uses of waters in the Powder River Basin: water contact recreation, irrigation and livestock watering; will be restored. These improvements ~~would~~ could provide an overall positive direct economic impact to [some of](#) the public who live, work and recreate in the basin.

Large businesses - businesses with more than 50 employees

DEQ evaluated available data from the Oregon Employment Department (2021) and USDA National Agricultural Statistics Service (2017) and did not definitively identify any large businesses in the basin. DEQ does not anticipate different economic impacts to any large

businesses as a result of the rule, compared to costs for implementing TMDLs issued by department order.

Small businesses – businesses with 50 or fewer employees

DEQ evaluated available data from the Oregon Employment Department (2021) and identified 37 small agricultural and three small timber-related businesses (non-industrial private forestlands). However, examination of USDA National Agricultural Statistics Service (2017) indicates there are up to 705 livestock and crop operations in Baker County covering approximately 754, 585 acres. The rule could impose costs associated with achieving required reductions in bacteria contributions to waterways from 16 small beef cattle ranching and farming operations registered as businesses, as well as an unquantified number of small livestock and farm operations, which are not identified as small businesses in Oregon's database.

Although the proposed rule does not place specific requirements on small businesses in aggregate, the proposed rule identifies management strategies and practices for the agricultural and forestry sectors that are necessary to reduce pollutant loads. These activities may require changes in certain management practices or improvements in land conditions that could result in capital costs for small livestock operators. ODA has rules in place that require a mix of regulatory and voluntary practices for agricultural activities (including livestock grazing on private and state forest lands) to improve water quality. Compliance costs for implementing ODA rules are not dependent on TMDLs. Some of the TMDL implementation costs may be offset by preventing erosion or improving the productivity of certain agricultural and forest lands. However, administrative and implementation costs are not different for implementing TMDLs issued by department order compared to TMDLs adopted as rules. In addition, grant and low interest loan funding are available to support implementation of pollution controls and watershed restoration actions required for compliance with TMDL requirements. The U.S. Dept of Agriculture, Natural Resource Conservation Service offers a variety of programs to help farmers, ranchers, family forests, Tribes and conservation partners perform voluntary conservation on private lands funded through the Farm Bill. Small rural landowners and agricultural operators are eligible for NRCS Financial Assistance, grant and cost-share programs through, including Environmental Quality Incentives Program, Conservation Innovation Grants, Voluntary Public Access and Habitat Incentives Program, Voluntary Conservation Stewardship Program, Regional Conservation Partnership Program, Conservation Easements, and Agricultural Conservation Easements Program. The Oregon Watershed Enhancement Board offers multiple grant opportunities, including Oregon Agricultural Heritage Program grants, the only grant type specific to agricultural lands.

ORS 183.336 Cost of Compliance Effect on Small Businesses

1. Estimated number of small businesses and types of businesses and industries with small businesses subject to proposed rule.

DEQ searched the Oregon Employment Department database (2021) list of all businesses registered in Oregon, using NAICS codes and zip codes for the basin. DEQ identified 37

registered small agricultural business and three registered small timber-related businesses. Based on this review, there may be small agricultural and timber producers that do not appear to be identified as “small businesses” as defined in ORS 183.310.

2. Projected reporting, recordkeeping and other administrative activities, including costs of professional services, required for small businesses to comply with the proposed rule.

The proposed rule does not place specific administrative activities or requirements on small businesses because implementation plan development and annual reporting responsibilities are assigned to state and local governments as Designated Management Agencies. Therefore, DEQ does not anticipate any significant costs of these types to small businesses.

3. Projected equipment, supplies, labor and increased administration required for small businesses to comply with the proposed rule.

Although the proposed rule does not place specific requirements on small businesses in aggregate, the proposed rule identifies management strategies and practices for the agricultural and forestry sectors that are necessary to reduce pollutant loads. These activities may require changes in certain management practices or improvements in land conditions that could result in costs to small agricultural operations. Although compliance costs for implementing ODA rules are not dependent on TMDLs, addressing TMDL requirements may require additional supplies, labor or administration for these businesses, including those that provide in-kind match to publicly funded restoration grants. Some capital costs may be offset by preventing erosion or improving the productivity of certain agricultural and timber lands through grant funded conservation projects.

4. Describe how DEQ involved small businesses in developing this proposed rule.

DEQ included individual landowners and representatives from agricultural and forestry interest groups on the Rule Advisory Committee to advise DEQ on economic impacts and costs of compliance for small businesses. DEQ also provided rulemaking notice to a statewide list of individuals and organizations interested in TMDLs and nonpoint source actions. These groups included small businesses.

Documents relied on for fiscal and economic impact

Document title	Document location
DEQ’s Oregon Administrative Rules 340-042-0080 Implementing a Total Maximum Daily Load	https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=1459
Natural Resource Conservation Service programs page	https://www.nrcs.usda.gov/programs-initiatives

USDA National Agricultural Statistics Service	https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1_Chapter_2_County_Level/Oregon/
Oregon Employment Department Small Business database (2021)	Note: We are confirming whether this list contains confidential business information or can be released.
Oregon State University - Small Farms Program	https://smallfarms.oregonstate.edu/
Oregon Department of Agriculture - Grants, Loans, and Technical Assistance	https://www.oregon.gov/oda/agriculture/Pages/Grants.aspx
Oregon Watershed Enhancement Board (OWEB) - Grant Programs	https://www.oregon.gov/oweb/grants/Pages/grant-programs.aspx
US Environmental Protection Agency Environmental Justice Screening Tool	https://www.epa.gov/sites/production/files/2021-04/documents/ejscreen_technical_document.pdf
Oregon Department of Human Services data and reports	https://www.oregon.gov/dhs/ABOUTDHS/Pages/Data.aspx
Oregon Department of Human Services – County Quick Facts 2018	https://www.oregon.gov/dhs/ABOUTDHS/DataDocuments/County-Quick-Facts-2018.pdf
US Census Bureau – 2020 Census – Census Tract Reference Map	https://www.census.gov/geographies/reference-maps/2020/geo/2020pl-maps/2020-census-tract.html

Advisory committee fiscal review

DEQ appointed an advisory committee.

As ORS 183.33 requires, DEQ will ask for the committee’s recommendations on:

- Whether the proposed rules would have a fiscal or economic impact,
- The extent of the impact, and
- Whether the proposed rules would have a significant adverse impact on small businesses; if so, how DEQ can comply with ORS 183.540 to reduce that impact.

The committee will review the draft fiscal and economic impact statement and its findings will be stated in the approved minutes.

The committee determines if the proposed rules would or would not have a significant adverse impact on small businesses in Oregon.

If a significant impact is identified by the committee, as ORS 183.333 and 183.540 requires, the committee will consider how DEQ could reduce the rules’ fiscal impact on small business. Committee ideas included:

[This section will be completed following completion of the RAC process]

Housing cost

As ORS 183.534 requires, DEQ evaluated whether the proposed rules would have an effect on the development cost of a 6,000-square-foot parcel and construction of a 1,200-square foot detached, single-family dwelling on that parcel. DEQ determined the proposed rules would have no effect on direct or indirect development costs.

Racial Equity

ORS 183.335(2)(a)(F) requires state agencies to provide a statement identifying how adoption of this rule will affect racial equity in this state.

Tribal nations were made aware of the rulemaking process and invited to consult on this matter and participate in the Rule Advisory Committee.

DEQ also engaged extensively with agricultural and forestry communities through local outreach, especially through Oregon Department of Agriculture Local Advisory Committee forums, and through the TMDL Rule Advisory Committee.

The proposed rules are expected to have a positive impact on and help promote racial equity, with regard to improved water quality and access to beneficial uses. This is because the externalized costs of water pollution often negatively affect poor, rural, indigenous and minority communities in Oregon. The proposed rules will help restore and maintain healthy water quality and will also restore and protect beneficial uses including water contact recreation, irrigation and livestock watering.

Environmental Justice Considerations

ORS 182.545 requires natural resource agencies to consider the effects of their actions on environmental justice issues.

182.545 Duties of natural resource agencies. In order to provide greater public participation and to ensure that all persons affected by decisions of the natural resource agencies have a voice in those decisions, each natural resource agency shall:

(1) In making a determination whether and how to act, consider the effects of the action on environmental justice issues.

(2) Hold hearings at times and in locations that are convenient for people in the communities that will be affected by the decisions stemming from the hearings.

(3) Engage in public outreach activities in the communities that will be affected by decisions of the agency.

(4) Create a citizen advocate position that is responsible for:

(a) Encouraging public participation;

(b) Ensuring that the agency considers environmental justice issues; and

(c) Informing the agency of the effect of its decisions on communities traditionally underrepresented in public processes.

ORS 182.545 requires natural resource agencies to consider the effects of their actions on environmental justice issues. DEQ considered these effects by:

- Using available socioeconomic and demographic information to evaluate whether overburdened or disadvantaged communities are present in the watershed;
- Evaluating the potential impacts of TMDL issuance on the pollutant burden on communities in the watershed;
- Evaluating whether any disadvantaged communities would be disproportionately impacted by TMDL implementation; and,
- Conducting outreach to solicit input on TMDL development and implementation from the different communities living, working and recreating within the watershed.

DEQ used EPA’s Environmental Justice screening tool and Oregon Health Authority data and reports (including the 2018 County Quick Facts) on a range of demographic, economic and health and wellbeing indicators to evaluate populations within Baker County and a small portion of Union County that lie within the Powder River Basin. The small portions of Wallowa County and Malheur County that fall within the Powder River Basin were not included in the EJ screening. The northeast portion of the basin that lies in Wallowa County is comprised of national forest land (Wallowa Whitman National Forest). The southeast portion of the basin within Malheur County is sparsely populated. Census blocks or tract groups available for these areas include extensive portions of both counties, making discernment between the target populations and larger county statistics indistinguishable. Although very small portions of the population of the basin may not be captured, the analysis is representative of the basin population.

DEQ concluded that Baker and Union County residents within the basin are on average older, of lower income, less ethnically diverse (greater percentage of non-Hispanic white) and with a higher unemployment rate than state averages. The demographic breakdown of Baker County’s population is 91.4% non-Hispanic White, 3.8% Hispanic, 1.3% non-Hispanic Indian or Alaskan Native, and less than 1% for each of the following categories: non-Hispanic African American, Asian, and Native Hawaiian and Other Pacific Islander. According to the DHS report, people living in Baker County are also on average less likely to have a college degree and more likely to be on social security income than the state average. And Union County has a greater percentage of people living in poverty than the state average, but the poverty “hot spot” in LaGrande is outside the Powder River Basin. As such, communities with potential disadvantages related to age and low-income status are present in the basin.

There are no federally recognized Tribal lands within the Powder River Basin, but the basin drains into the Snake River at multiple points. The economic, social, and spiritual health of the Nez Perce Tribe is in part derived from a healthy Snake River ecosystem. By reducing bacterial loading to surface waters, the Powder River Basin TMDL supports Tribal: salmon, sturgeon and lamprey fishing; gathering of ceremonial, medicinal and food plants; hunting; and spiritual and ceremonial uses in the Powder River Basin and downstream ecosystems.

DEQ also used EPA’s EJ Screen to compile census and other data as indicators of the potential for increased impacts from exposure to pollutants. All pollutant exposure indicators were below state averages, with the exceptions of lead paint and ozone. Lead paint exposure is likely higher due to the age of rural housing compared to newer homes in

urban and suburban areas. EPA's Ozone Basics website indicates that ground level ozone results from chemical reactions between air pollutants emitted by cars, industrial facilities, power plants and other sources and is mediated by sunlight. Potential reasons for this pollutant to be higher in Baker and Union Counties are complex and beyond the scope of this analysis. The Powder River Basin Bacteria TMDL will not affect human exposure to lead paint or ozone and will not, therefore, increase pollutant loads to overburdened communities.

DEQ's analysis of fiscal and economic impacts found that there could be costs associated with required TMDL implementation incurred by businesses and individuals that contribute bacteria to waterways within the basin. However, improvements to water quality as a result of TMDL implementation will improve economic opportunities for recreating, irrigating and livestock watering, which may have increased economic and health benefits for all those who live, work or recreate in the basin.

DEQ considered costs being a barrier for rural, low-income residents in replacing failing septic systems, which may be needed in some areas of the basin to meet TMDL bacteria allocations. However, DEQ determined that TMDL issuance can help focus resources to address pollutant loads from failing onsite wastewater treatment systems and provide assistance to residents that qualify for low-interest loans.

DEQ concluded that economic costs of TMDL implementation would not disproportionately impact disadvantaged communities. This is because communities with potential disadvantages related to age and low-income status are likely to realize proportionately higher benefit from water quality improvements increasing opportunities for recreation, irrigation and livestock watering. In addition, Baker and Union County can play an active role under existing regulations to support community-based loan programs and access federal resources to ease economic burdens for replacing failing septic systems, as needed.

DEQ acknowledges the importance of understanding these demographic and socioeconomic results when conducting outreach and providing environmental education. Limited resources and post-secondary education can create barriers in use of technology or electronic data systems and may indicate locations in need of additional technical assistance. DEQ provided outreach opportunities in person, via virtual platforms and via phone and in writing.

DEQ engaged extensively with agricultural and forestry communities through local outreach, especially through Oregon Department of Agriculture Local Advisory Committee forums, and through the TMDL Rule Advisory Committee. These forums included some older folks and low-income residents. Tribal nations were made aware of the rulemaking process and invited to consult on this matter and participate in the Rule Advisory Committee.

Non-discrimination statement

DEQ does not discriminate on the basis of race, color, national origin, disability, age or sex in administration of its programs or activities.

Visit DEQ's [Civil Rights and Environmental Justice page](#).

DRAFT