

## Temperature Total Maximum Daily Load Data Solicitation

### Purpose

Answers to frequently asked questions about submitting data to DEQ during the temperature TMDL replacement project, data solicitation. More information about this project is online at: <https://www.oregon.gov/deq/wq/tmdls/Pages/tmdlreplacement.aspx>



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*DEQ is a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.*

### 1. What is a Total Maximum Daily Load (TMDL)?

A total maximum daily load is a water quality restoration plan and the calculation of the maximum amount of a pollutant that a waterbody can receive while still meeting water quality standards for that particular pollutant. A TMDL establishes a pollutant-reduction target and allocates the load reductions necessary to the contributing source(s) of the pollutant. The Clean Water Act requires TMDLs be developed for waterbodies that do not meet water quality standards and are listed as water quality impaired on the State's 303(d) list. See [DEQ's TMDL webpage](#) for more information.

### 2. What is the 303(d) list?

The term "303(d) list" or "list" is short for a state's list of impaired and threatened waters, such as streams, river segments and lakes. The list was developed to comply with Section 303(d) of the Clean Water Act, which requires states to identify waters where current pollution control technologies alone cannot meet the water quality standards set for that waterbody. Every two years, states are required to submit a list of impaired waters -- and any waters that may soon become impaired -- to the U.S. Environmental Protection Agency for approval. For each waterbody on the list, the state identifies the pollutant causing the impairment, when known. In general, once a water body has been added to a state's list of impaired waters it stays there until the state develops a TMDL and EPA approves it. Once a TMDL is developed, a water body is no longer on the 303(d) list, but it is still considered impaired and is tracked until the water is fully restored and meets state water quality standards.

### 3. Why is DEQ updating and replacing the temperature TMDLs?

In 2012, The U.S. District Court found that EPA's approval of an element of Oregon's water quality standard for temperature, the Natural Conditions Criteria, was unlawful. The Natural Conditions Criterion stated that where the natural thermal potential of all or a portion of a water body exceeds the biologically-based numeric temperature criteria in OAR 340-041-0028(4), the natural thermal potential temperatures supersede the biologically-based criteria, and are deemed to be the applicable temperature criteria for that water body. This portion of the temperature water quality standard was effective from 2003 until EPA disapproved it in response to the court decision in 2013. Information about temperature standard litigation is online.

Many temperature TMDLs were based on this criteria, and this became the subject of a second lawsuit brought by the Northwest Environmental Advocates against EPA asserting the EPA unlawfully approved TMDLs that were based on the now disapproved Natural Conditions Criterion. The court issued a judgment on Oct. 4, 2019, requiring DEQ and EPA to replace 15 Oregon temperature TMDLs that were based on the Natural Conditions Criterion and to reissue the temperature TMDLs based on the remaining elements of the temperature criteria. Cumulatively, these TMDLs address over 700 temperature impaired segments that do not meet water quality standards for temperature.

DEQ's role is to develop and issue these TMDLs and submit to EPA for their action over an eight-year period.

**4. What is the Temperature TMDL data solicitation?**

To support the replacement of these temperature TMDLs, DEQ is conducting an open data solicitation July 1 through Sept. 30, 2020. During the solicitation period, the public may submit temperature data to DEQ in the watersheds subject to the temperature TMDL replacements. DEQ is also requesting National Pollutant Discharge Elimination System permit holders to submit effluent temperature and effluent flow data.

**5. When is Temperature TMDL data solicitation?**

The data solicitation will be held from July 1 through Sept. 30, 2020.

**6. What is DEQ using this data for?**

The primary use of the data is to characterize stream temperatures in watersheds where DEQ must revise the temperature TMDLs. Specifically, the data may be used to characterize temperature patterns and variation over both spatial and temporal scales; determine where the temperature exceeds water quality standards; and determine the magnitude and duration of those exceedances. Depending on the location and time period the data were collected, the data may be used to support the temperature modeling analysis. The modeling analysis helps DEQ understand the sources of temperature warming and what actions will reduce that warming. DEQ is using the effluent data to characterize the effluent heat load discharged to a waterbody. DEQ is highlighting particular time periods and waterbodies where temperature data will be extremely useful. In most cases, DEQ will make data submitted publicly available in our Ambient Water Quality Monitoring System database.

**7. What kind of data is DEQ requesting?**

The public may submit continuous stream temperature data to DEQ collected in the watersheds that are subject to the temperature TMDL replacements. DEQ is also seeking continuous or grab sample effluent temperature and effluent flow data from National Pollutant Discharge Elimination System permit holders.

Organizations that are ongoing participants in DEQ's Volunteer Monitoring Program can continue to use data reporting procedures established for that program. Data submitted under that program or during DEQ's 2018 Integrated Report call-for-data period do not need to be resubmitted for this solicitation.

**8. Are there data requirements?**

Organizations submitting data to DEQ must also submit a project plan that includes a purpose statement, the number of samples collected, and quality assurance and quality control protocols under which samples were collected and analyzed. Organizations must also use widely approved methods, such as ODEQ-MOMs, USEPA, USGS or Standard Methods for the Examination of Water and Wastewater, that include applicable precision and accuracy checks.

**9. What are the data requirements?**

For submitted data to be considered for the temperature TMDL replacement project, data must meet all the following requirements:

- Parameters – DEQ is only accepting continuous water temperature data collected at regular intervals with the same set of monitoring equipment – for example, data collected every 30 minutes over the summer. DEQ is not accepting temperature grab samples. From NPDES permit holders, DEQ is also accepting continuous

effluent flow and continuous effluent temperature (or effluent grab samples if continuous data are not available).

- Study area – Data and information submitted to DEQ must be collected from waters within the TMDL project area watersheds.
- Data submission template – Continuous temperature data must be submitted to DEQ using DEQ’s continuous data template, which can be downloaded from the [Temperature TMDL Replacement Project website](#). The template provides a way for DEQ to efficiently review and make the data publicly available in our AWQMS database. The template includes fields with information about the monitoring locations, pre- and post-deployment accuracy checks, field audits, and other information related to the monitoring.
- Data time period – DEQ is accepting any stream temperature data collected after 1998 that is not already in a publicly accessible database such as DEQ’s AWQMS database, EPA’s WQX/STORET, or USGS’s NWIS databases. From NPDES permit holders we are seeking effluent data collected from 2014-2020.

#### **10. What are the submission checklist items?**

- Were the data already submitted as part of a volunteer monitoring program or during DEQ’s Integrated Report call for data? If yes, do not submit them again (DEQ already has them).
- Did you prepare and follow a project plan, Quality Assurance Project Plan, Sampling and Analysis Plan or other similar document to ensure that data collection, analysis methods and quality control steps are built into the project from the beginning?
- Do all samples collected follow widely approved methods (i.e., ODEQ-MOMs, USEPA, USGS and Standard Methods for the Examination of Water and Wastewater)? Methods used must be specified in the data submission template.
- Are you willing to sign a verification form declaring that all methods and quality control protocols were followed?
- Do you understand and accept that your data will become publicly available and visible to anyone?
- Were your data collected in the temperature TMDL project watersheds?
- Were your continuous stream temperature data collected between 1998 and 2020? Or are you a NPDES permit holder and submitting effluent data collected between 2014 and 2020?
- Were your data entered into the data templates provided by DEQ on the temperature TMDL project website?
- Can you provide the following information about your data?
  - Location of each monitoring station in latitude and longitude, the reference datum (example – NAD83)
  - Waterbody name and description of the monitoring location
  - Deployment information, including equipment IDs used to take samples
  - Date and time the samples were taken
  - Measured result
  - Unit of measurement
  - Pre- and post-deployment accuracy checks
  - Audit values
  - Method used for measurement
  - Name and contact information of the organization submitting the data

#### **11. How do I know if my data are already publicly available?**

DEQ has summarized what is already available in public databases and identified priority time periods and locations where we are seeking data. See the project website for details.

## 12. How do I submit data?

You must use the data submission templates to submit data. However, before sending data to DEQ, please review the data submission guideline and checklist to ensure you are ready. To submit the template, send an email to [tempTMDLdata@deq.state.or.us](mailto:tempTMDLdata@deq.state.or.us) notifying DEQ you are ready to submit. Do not attach the template to the notification email. The template file size is too large for DEQ's email systems. DEQ will respond to you with instructions on how to submit the template. The data templates and template instructions can be downloaded from DEQ's website at <https://www.oregon.gov/deq/wq/tmdls/Pages/tmdlreplacement.aspx>.

## 13. How will DEQ verify the data?

Data submitted to DEQ will be screened for completeness, quality, and whether the results are within the typical range expected for that season and time of day. A typical range is the temperature values between the 10th and 90th percentile for that season and time of day. If the data are incomplete or outside this range, DEQ will manually inspect the results, review quality control data, or follow up with the submitter for supporting documentation. The intent of the validation is not to eliminate data that may be showing a shift outside of the typical range, but rather to ensure that there is not an error in transcription or reporting units.

## 14. Which watersheds need new temperature TMDLs?

The following Temperature TMDLs are being replaced:

- Applegate Subbasin TMDL and Water Quality Management Plan (WQMP)
- Bear Creek Watershed TMDL
- John Day River Basin TMDL and WQMP
- Lower Grande Ronde Subbasins TMDLs
- Malheur River Basin TMDL and WQMP
- Middle Columbia-Hood (Miles Creeks) Subbasin TMDL and WQMP
- Molalla-Pudding Subbasin TMDL and WQMP
- Rogue River Basin TMDL
- Sandy River Basin TMDL
- Snake River-Hells Canyon TMDL
- Umpqua Basin TMDL and WQMP
- Walla Walla Subbasin Temperature TMDL and WQMP
- Willamette Basin TMDL and WQMP
- Willow Creek Subbasin Temperature TMDL and WQMP

## 15. How will this data solicitation work be completed?

DEQ plans to complete the replacement TMDLs as quickly as possible according to the schedule set by the Final Court Order and Judgment. DEQ will not expand the scope of work beyond what is needed to address the requirements of the Final Court Order and Judgment.

DEQ will work with EPA and EPA's contractor, Tetra Tech, to solicit and assist the public in submitting their data to DEQ, review the data, make it publicly available in DEQ's Ambient Water Quality Monitoring System database, and complete the technical work.

## 16. Will a public process be held for the TMDLs?

DEQ will work to keep the public informed and will consider their concerns and ideas. Each project TMDL will include an advisory group made up of members representing the local public and interested stakeholders to provide information and feedback on the TMDL during development. Each TMDL will also have a web page with meeting materials and

project updates. DEQ will also have a formal public comment period where anyone can provide comments. DEQ will develop a response to comment document that will be available to the public.

**17. Will DEQ consider environmental justice?**

DEQ will consider environmental justice concerns for each TMDL by looking into the demographics of the affected community and determining the environmental justice issues that need to be considered. DEQ will communicate with tribes about this data solicitation. DEQ uses [EPA's EJ SCREEN tool](#) for information.

**18. Why is water temperature important?**

Water temperature is a key driver for water quality. It can impact the following:

- Temperature in water governs the kinds and types of aquatic life
- Regulates the maximum dissolved oxygen concentration of the water
- Influences the rate of chemical and biological reactions
- Affects the dissolved oxygen level in water, photosynthesis of aquatic plants, metabolic rates of aquatic organisms, and the sensitivity of these organisms to pollution, parasites, and disease

**19. What can cause temperature problems?**

Temperatures in streams and rivers are influenced by many atmospheric and hydrologic processes affecting the movement of heat. Heat can be added to the watershed system through discharge of heated effluents, removal of streamside vegetation, removal of upland vegetation, runoff from impervious (hard) surfaces in the watershed, alteration of stream channels, presence of impoundments or dams, removal of water from surface or groundwater, and other changes.

**20. Who do I contact for questions?**

Send an email to [tempTMDLdata@deq.state.or.us](mailto:tempTMDLdata@deq.state.or.us) with your questions. Someone will respond to you within a few days. DEQ can provide documents in an alternate format or in a language other than English upon request. Call DEQ at 800-452-4011 or email [deqinfo@deq.state.or.us](mailto:deqinfo@deq.state.or.us).