



STATE OF IDAHO

**DEPARTMENT OF
ENVIRONMENTAL QUALITY**

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C.L. "Butch" Otter, Governor
Curt Fransen, Director

MEMORANDUM

TO: Regional Administrators, Water Quality Managers, Engineering Managers
FROM: Barry Burnell, Water Quality Division Administrator *BB*
DATE: January 25, 2013
SUBJECT: Temperature Monitoring Requirements in NPDES permits for facilities discharging to temperature impaired waters

Background

Temperature data collection is becoming a common NPDES permit requirement where Waters of the State have been identified in the State's Integrated Report as impaired for temperature, and where TMDLs have not yet been developed or approved. Due to a lack of effluent temperature data for NPDES permitted facilities, coupled with insufficient data on the thermal characteristics of some receiving water bodies, DEQ has been unable to establish wasteload allocations for many facilities in Idaho through the TMDL process. This is problematic on many levels, including the establishment of end-of-pipe limits for many dischargers.

Thus, DEQ must obtain the data necessary to establish defensible wasteload allocations, which can then be incorporated into approvable TMDLs. EPA has a similar need for temperature data in that EPA permit writers use the data to establish water quality based effluent limitations (WQBELs), which ensure that permitted facilities will not cause or contribute to exceedances of Idaho's water quality criteria for temperature and temperature-related parameters. EPA recently communicated to DEQ that they will not approve temperature TMDLs which lack specific wasteload allocations for point-source dischargers, unless it can be shown that they are not sources of heat loading.

EPA and DEQ are currently working together to develop NPDES permit language that will inform dischargers of their specific temperature monitoring requirements. DEQ and EPA will continue to work together during the development of future permits to determine the most appropriate method(s), frequency and location(s) for temperature data collection based on facility-specific information; consideration will be given to the size and complexity (design) of the facility, the effluent quantity and quality, the size of the receiving water body, as well as operating costs and other facility information including existing, and previously reported, temperature data. EPA and DEQ may determine that daily grab samples will be satisfactory for a small NPDES facility, while larger facilities may need to conduct more frequent temperature measurements using an automated recording thermistor (aka 'continuous' monitoring). EPA and DEQ may also conclude that temperature monitoring is not needed, where available data supports such a determination.

In addition to effluent monitoring, DEQ may also require ambient receiving-water temperature monitoring to assess the impacts of these discharges to temperature-limited waters through the §401 certification process. *If*

ambient temperature monitoring is required of a permittee, it will likely be continuous (as defined in the permit) and must be upstream of the discharge. DEQ access to the receiving stream will also be a factor in whether such data collection is required of the discharger or conducted separately by DEQ.

Request for Assistance

Recently DEQ's Surface Water Program received a request from regional staff to provide guidance, or direction, to facilities on how to collect continuous temperature data, where it is now a new requirement of the facility's NPDES permit. It was suggested that DEQ should assist the facility in their monitoring efforts. DEQ should provide technical assistance to inform permittees and their consultants on the methods that DEQ uses to collect temperature data, with the understanding that the facility is ultimately responsible for this monitoring. *DEQ will not collect, download, or process the facility's data for the purpose of assisting permittees in meeting their NPDES reporting requirements.* This work can be contracted if the facility cannot accomplish the data collection and processing requirements themselves. This does not mean that DEQ will not, or cannot, use or review the data that is reported by a facility for other purposes. Additionally, this memorandum shall not void any existing agreement(s) between DEQ and a NPDES permittee(s).

DEQ is working to update its temperature monitoring protocol ("Protocol 10") regarding the proper placement, operation and maintenance of temperature monitoring equipment used for ambient monitoring, and the subsequent handling of generated data. Although DEQ's *Protocol 10* is not aimed at effluent monitoring, it will likely be useful to those conducting effluent monitoring. A statewide, generic QAPP for temperature monitoring is also in development and may be a useful tool for permittees engaged in temperature monitoring.

Directive

In order to meet DEQ's need for ambient receiving water temperature data for water quality assessments and/or TMDL development, *DEQ staff are hereby directed to prioritize monitoring to locations where there are NPDES permitted discharges to temperature-impaired waters, and insufficient temperature data exists to establish water quality based effluent limits and/or defensible wasteload allocations.* It is DEQ's responsibility to collect ambient temperature monitoring data for water quality assessments and TMDL development.

Timing of permit renewal should be taken into account in scheduling DEQ's temperature monitoring. Whether ambient monitoring is conducted by DEQ, or by the facility, resultant data may also be used in determining whether a water body has been listed for temperature correctly, or in error. Historically, many water bodies in Idaho were listed not based on continuous temperature data, but on lack of shade and/or instantaneous (grab sample) temperature data. Ambient receiving-water temperature data may lead to de-listings which could possibly negate the need for future temperature monitoring requirements in permits, and subsequent development of TMDLs.

The purpose of this policy memo is to provide general information and directives to DEQ staff on the agency's role in implementation of temperature monitoring requirements which are becoming common components of NPDES permits, and is not intended to provide permit-specific details.

BNB/ma