



**NPDES Cost of Compliance
Checklist Guide**

State Water Resources Control Board
Division of Water Quality

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INTRODUCTION

State Water Resources Control Board (State Water Board) [Resolution No. 2013-0029](#) directs actions to reduce the cost of compliance to Dischargers subject to Water Board National Pollutant Discharge Elimination System (NPDES) permitting while protecting water quality protection. In accordance with Resolve Item 4 of the Resolution, Water Board staff worked with the NPDES Roundtable forum and stakeholders to develop statewide recommendations for NPDES permitting that address cost of compliance.

A workgroup consisting of: (1) staff of the State Water Board and Regional Water Quality Control Boards (Regional Water Board), the U.S. Environmental Protection Agency (U.S. EPA), and (2) representatives of environmental organizations and discharger. The workgroup developed a checklist for State and Regional Water Board permit writers to incorporate the NPDES Cost of Compliance recommendations during permit development. This checklist guide provides details for each section of the NPDES Cost of Compliance Checklist to facilitate the use of the checklist by permit writers to use as considerations when drafting permits. Language provided below are examples; other language may be used in order to accomplish the stated purpose.

I. ADDRESS DUPLICATION OF NPDES PERMIT RECEIVING WATER MONITORING REQUIREMENTS

Receiving water monitoring data are used for several purposes in NPDES permits as follows:

- For toxic priority pollutants, ambient background data are used to determine if there is a need for final effluent limitations in a permit for discharges to non-ocean waters.
- The ambient background concentrations of toxic priority pollutants and non-priority pollutants are used in the calculation of effluent limitations, and the consideration of dilution where applicable (mixing zone and dilution credits).
- Receiving water quality parameters such as salinity, hardness, temperature, and pH are used to adjust water quality criteria as allowed by regulation and state policy.
- Receiving water monitoring data are used to determine the relative effects of a discharge on the receiving water for parameters such as dissolved oxygen, temperature, and pH.
- Receiving water monitoring data may be used to determine if the receiving water body is within water quality objectives or if a discharge is contributing to degradation of a water body, potentially triggering additional discharge requirements.
- Receiving water monitoring data are used for determination of permit compliance where receiving water limitations apply.

The Water Boards require receiving water monitoring data that are of sufficient quality (including but not limited to sample collection methods and analytical methods), monitoring frequency, and location to be used for the above purposes. An NPDES permit typically includes receiving water monitoring requirements to address these purposes. Agencies (or entities such as scientific organizations) other than the discharger may be conducting regional monitoring studies or performing similar receiving water monitoring that may serve the Water Boards in determining permit compliance. Avoiding duplicate monitoring typically results in cost savings to the discharger while continuing to protect

water quality. The following procedures may address monitoring duplication of permit-specific receiving water monitoring and regional monitoring programs.

An NPDES permit term is for five years. The current permit should list the receiving water monitoring requirements; the Fact Sheet of the permit should document the rationale for why the Water Board included these monitoring requirements in the permit. The rationale should link how the information gathered through the receiving water monitoring requirements is linked to tangible protection of water quality.

A. Regional Monitoring Programs

1. Is participation in a Regional Monitoring Program (RMP), feasible, if not already considered? Explain why RMP requirements are feasible or infeasible.

If the Discharger is already enrolled in an RMP, then the permit writer should document the rationale for enrollment in the RMP in the Fact Sheet.

If the Discharger is not already enrolled in an RMP, then the Discharger may propose enrollment in an RMP that will satisfy permitting needs for the next reissuance of the permit. Enrollment in the RMP should require coordination with the governing Water Board and the local entity responsible for monitoring. The Discharger should provide information showing continued enrollment in the RMP to satisfy receiving water monitoring requirements. The Discharger should also list the existing permit monitoring requirements that the RMP requirements will satisfy.

Water Board staff should consider if the proposed RMP monitoring will be satisfactory for permitting purposes. The discretion to rely on the proposed monitoring remains with the Water Board adopting the permit. The Fact Sheet should clearly indicate the receiving water monitoring requirements that the RMP requirements satisfy, including Surface Water Ambient Monitoring Program (SWAMP) requirements.

Receiving water monitoring requirements should be established in the permit as if the Discharger will be performing all required receiving water monitoring. Where the proposed RMP monitoring is acceptable to the Water Board, the parameter should be footnoted with appropriate language to state that the monitoring requirement is satisfied by RMP requirements. The language should be written with the assumption that the RMP monitoring may be discontinued at any time, and the Discharger will need to comply with the subsequent monitoring and reporting requirements absent of regional monitoring.

2. List of Existing Regional Monitoring Programs

The following link provides a list of existing RMPs for use in evaluating duplication of receiving water monitoring requirements in NPDES permits: http://wiki/dwq/doku.php?id=regional_monitoring_programs.

3. NPDES Permit Language

NPDES permit language varies depending on the requirements of the RMP. The following are examples from a permit for a Discharger in the San Francisco Regional Water Board:

a. Example Monitoring and Reporting Program, Attachment E, Receiving Monitoring Requirements

“The Discharger shall continue to participate in the San Francisco Estuary Institute’s Regional Monitoring Program (RMP).”

b. Example Fact Sheet, Attachment F, Receiving Water Monitoring

“The Discharger is required to continue participating in the San Francisco Estuary Institute’s Regional Monitoring Program (RMP), which involves collection of data on pollutants and toxicity in San Francisco Bay water, sediment, and biota. The Discharger’s participation and support of the RMP is the basis for not including other receiving water monitoring requirements in this permit.”

B. Regional Agency-Based Monitoring

1. Did the Discharger provide data from an agency which conducts monitoring comparable with the Surface Water Ambient Monitoring Program requirements?

The Discharger may use available resources to propose the substitution of ongoing agency- or entity-based monitoring for individual parameters that will satisfy permitting needs for the next reissuance of the permit. The proposal should be submitted with the NPDES permit application. The proposal should describe the following:

- a. Agency or entity that will be performing the monitoring.
- b. How the agency’s monitoring program meets the State Water Board’s SWAMP Comparable guidelines.
- c. Data quality assurance information.
- d. Parameters, units, sample type, monitoring locations, monitoring frequency, and the analytical test method.
- e. Data accessibility for submittals required by the permit.
- f. Reasonable assurance that the monitoring will continue through the effective period of the permit.

If the proposed regional monitoring does not meet SWAMP Comparable guidelines, but the agency responsible for monitoring is interested in becoming SWAMP comparable, then the agency should contact the SWAMP Quality Assurance Help Desk at OIMA-Helpdesk@waterboards.ca.gov or visit

http://www.waterboards.ca.gov/water_issues/programs/swamp/ga_helpdesk_contact.shtml.

2. **Can monitoring data from the regional monitoring agency be used to satisfy monitoring requirements in lieu of discharger-specific monitoring? Please explain.**

Water Board staff should consider if the proposed regional monitoring will be satisfactory for permitting purposes and satisfies SWAMP standards. The discretion to substitute the proposed regional monitoring for discharger-specific receiving water monitoring remains with the Water Board adopting the permit.

Receiving water monitoring requirements should be established in the permit as if the Discharger will be performing all required receiving water monitoring. Dischargers using agency-based regional monitoring should still be responsible for the reporting of the monitoring results. Where the proposed agency-based regional water monitoring is acceptable to Regional Water Board staff, the parameter should be footnoted with appropriate language to allow monitoring by other agencies or entities. The language should be written with the assumption that the agency-based monitoring may be discontinued at any time, and the Discharger will need to comply with subsequent monitoring and reporting requirements absent of regional monitoring.

3. **List of SWAMP Comparable Agency-Based Monitoring Databases**

The following link provides a list of existing SWAMP comparable agency-based databases for use in evaluating substitution of regional monitoring in place of receiving water monitoring requirements in NPDES permits:

http://swamp.waterboards.ca.gov/swamp_checker/DisplayLookUp.php?List=AgencyLookUp.

4. **NPDES Permit Language**

- a. **Monitoring and Reporting Program, Attachment E.** Where it is acceptable to the Water Board, a receiving water monitoring parameter (or group of parameters) and the associated monitoring requirements that are typically described within tables may be footnoted with the following example language to avoid duplication of monitoring that is performed by another agency or entity:

“Compliance with the receiving water monitoring requirements for this parameter may be met by self-monitoring or by Surface Water Ambient Monitoring Program-comparable monitoring conducted by <name of agency or entity>. The Discharger must comply with all data submittal requirements for <this/these parameter(s)>. The Water Board maintains the authority to require that this monitoring be conducted by the Discharger upon notification by the Executive Officer.”

- b. **Fact Sheet, Attachment F.** The Fact Sheet should provide justification for how the use of agency-based receiving water monitoring will demonstrate water quality protection. In situations where ongoing monitoring will be performed by another agency or entity that is satisfactory to the Regional

Water Board, the following example language could be included in the permit Fact Sheet to explain the circumstances.

“<Agency- or Entity->based Receiving Water Monitoring. This permit requires receiving water monitoring for <list the parameter(s)> that is currently conducted by <name of agency/entity>. The monitoring is Surface Water Ambient Monitoring Program-comparable for quality assurance purposes and is consistent with the needs of the Regional Water Board to <describe the use of the data>. The monitoring and reporting requirements provide that the receiving water monitoring requirements for <this/these parameter(s)> may be conducted by the Discharger or by the <name of agency/entity> to avoid duplicative monitoring. The Discharger must comply with all data submittal requirements for this parameter. The Regional Water Board maintains authority to require that this monitoring be conducted by the Discharger upon notification by the Executive Officer.”

C. Collaborative Study Efforts

Dischargers may participate in collaborative study efforts to collectively monitor and report required data and information to the State or Regional Water Board in lieu of individually preparing data and information to fulfill permit requirements.

Will the reporting requirements consider any established collaborative study efforts? Explain the feasibility or infeasibility of using collaborative study efforts.

If the Discharger is already a part of a collaborative study effort, then the permit writer should document or ensure that the rationale for participation in the collaborative effort is documented in the Fact Sheet. The permit writer should include the requirements performed through the collaborative study effort in lieu of individual monitoring and reporting.

If the Discharger is not already a member of a collaborative study effort, then the Discharger may join an existing collaborative study effort. If no collaborative study effort is available, Dischargers conducting similar activities within a given watershed or similar environmental settings (agricultural, urban, and wetland) may propose a collaborative study effort that can collectively fulfill permitting requirements. The State or Regional Water Board must approve the collaborative study effort prior to implementing its use in the permit. Dischargers involved in the collaborative study effort should provide the Water Board with a list of the existing requirements that will be conducted as part of the collaborative study effort.

II. REDUCE MONITORING FOR ENTITIES WITH A POSITIVE COMPLIANCE RECORD FOR SPECIFIC CONSTITUENTS/PARAMETERS

Many permitted facilities have made treatment process upgrades and may have a good compliance record, demonstrating the ability to successfully and consistently treat and/or control wastewater. Permit writers should consider adjusting routine effluent and receiving water monitoring requirements based on a well-defined decision-making process that provides for parameter by parameter compliance history assessment and sound statistical predictions of the likelihood of future effluent limitation exceedances. Any adjustment of

monitoring must comply with federal regulation. Some Water Boards currently implement this practice through permits containing language that allows for adjusting monitoring requirements, based on consistent compliance, either at permit reissuance or during the permit cycle.

A. Reduce Monitoring Frequency at Permit Reissuance

1. Will monitoring for this permit be reduced based on data from the last permit cycle?

The permit writer should review monitoring data from the previous permit cycle to identify any areas where reducing monitoring frequency for the new permit cycle is feasible. A summary of regulations, policies, and Water Board practices that establish minimum monitoring frequencies in NPDES permits (located at the following link:

http://wiki/dwq/lib/exe/fetch.php?media=1._minimum_monitoring_frequency_in_npdes_permits.docx) is available to assist in determining monitoring frequency. The discretion to reduce monitoring frequency shall remain with the Water Board adopting the permit. The rationale must be clearly documented in the Fact Sheet.

For example, if monitoring for this permit can be reduced based on data from the last permit cycle, the Fact Sheet should provide justification for the monitoring reduction of the subject constituents. If it cannot be reduced, the Fact Sheet should include rationale for maintaining existing monitoring frequency.

2. Minimum Monitoring Frequency in NPDES Permits

The following link provides information regarding the minimum required monitoring frequencies in NPDES permits:

http://wiki/dwq/lib/exe/fetch.php?media=1._minimum_monitoring_frequency_in_npdes_permits.docx.

B. Reduce Monitoring Frequency During the Permit Cycle

1. Will monitoring for this permit be reduced based on data and information collected during the permit cycle? If yes, the Fact Sheet should provide the constituents and justification for reduction. If no, provide explanation in the Fact Sheet.

The permit writer should consider reducing the monitoring frequency during the permit cycle based on positive compliance history during each monitoring period. Permit writers should review a facility's compliance history after each monitoring period to identify if monitoring frequency can be adjusted for certain constituents.

Permit writers should consider if the proposed monitoring will be satisfactory for permitting purposes. The discretion to rely on the proposed monitoring shall remain with the Regional Water Board.

For example, if monitoring for this permit can be reduced based on results collected during the permit cycle, the Fact Sheet should list the constituents

where monitoring frequency will be adjusted and provide the justification for each. If monitoring frequency will not be adjusted, please explain.

2. Permit Language to Adjust Monitoring Frequency

Many NPDES permits have language that adjusts monitoring frequency. For example permit language, permit writers can refer to the list of permits with language to adjust monitoring frequency, located at the following link:

http://wiki/dwq/lib/exe/fetch.php?media=2_permit_language_to_adjust_monitoring_frequency.xlsx.

C. Increase Monitoring Frequency During the Permit Cycle

1. Were any monitoring frequencies for this permit increased as a result of data from the last permit cycle? If yes, the Fact Sheet should provide the constituents and justification for the increase in monitoring frequency.

While evaluating the monitoring frequency based on positive compliance history, the permit writer should also consider if increasing the monitoring frequency is necessary based on the data from the last permit cycle.

Permit writers should document the rationale for any monitoring frequencies that increased as a result of data from the last permit cycle. Permit writers should consider if the proposed monitoring will be satisfactory for permitting purposes. The discretion to rely on the proposed monitoring shall remain with the Regional Water Board.

2. Permit Language to Adjust Monitoring Frequency

Many NPDES permits have language that adjusts monitoring frequency. For example permit language, permit writers may refer to the list of permits with language to adjust monitoring frequency.

III. ENCOURAGE USE OF SURROGATE MONITORING WHERE APPROPRIATE

There are water quality correlations among pollutants/parameters where concentrations or levels of one parameter correlate with threat to water quality from other parameters. The purpose of this item is to identify potential surrogate monitoring where appropriate. The indicator parameter should be a regulated parameter with demonstrable correlation to the pollutant of concern. The impacts to water quality of the indicator parameter should also be provided.

1. Are there surrogate constituents or parameters that can be used to properly represent and can be substituted for similar constituents/parameters?

The Discharger may use available resources to propose the substitution of monitoring of constituents with surrogate constituents that can be more easily and less costly to analyze. The Discharger should provide at least the following information:

- a. Proposed surrogate;
- b. Location of compliance sampling;
- c. Sampling conditions;
- d. Correlation between surrogate and constituent;

- e. Scientific literature or basis for reliability; and
- f. Legal and regulatory considerations.

2. Please provide the justification for using the surrogate.

Water Board staff should consider if the proposed surrogate monitoring will be satisfactory for permitting purposes. Justification to use surrogate constituents must be adequately documented in the Fact Sheet.

3. Examples of Surrogate Constituents

Many permits allow monitoring of surrogate constituents. For examples of information necessary to justify the use of a surrogate parameter, permit writers can refer to the list of surrogate constituent examples, located at the following link:

http://wiki/dwq/lib/exe/fetch.php?media=3_surrogate_constituents.docx.

IV. ELIMINATE IRRELEVANT AND UNNECESSARY REPORTS

Many NPDES permits require a number of special reports or studies. Some of these reports are required per regulations and others are included for discharge- or region-specific reasons. The purpose of this item is to evaluate the information gathered through special studies and reporting requirements and assess if the information has value for further regulatory actions to improve/protect water quality.

A. Options for Data Submission and Adequate Justification

1. Are reports or studies other than regular monitoring reports (monthly, quarterly, semi-annually, or annually) required by the permit?

Permit writers should take into account all of the reports or studies required by the permit.

2. Why are these reports required? Who will review them? What will be done with them?

Permit writers should include a rationale in the Fact Sheet that states the purpose of each report or study in the permit and its link to water quality protection. Documenting the report review process and the intended use of the resulting information will address the common problem of required reports not being reviewed timely or not being used for subsequent actions directly pertaining to water quality protection. When reports or studies are not reviewed or there is no direct link of report or study information to water quality protection, requiring the reports or studies is not justified.

3. In lieu of a full report, can the Discharger submit an alternate report type?

The Discharger may provide the Water Board with justification for removal of reporting or requirements prior to permit reissuance or propose an alternate option for submission of reports. This includes submitting reports through a coalition or other collaborative effort.

Water Board staff should consider if the Discharger's proposal for removing or altering reporting requirements will satisfy requirements for permitting. Changes should be properly documented in the Fact Sheet.

4. Examples of Reports Considered Unnecessary

The following link provides examples of reports that may be unnecessary or redundant in some circumstances, and potential Water Board staff actions to further consider the need for the reports:

http://wiki/dwg/lib/exe/fetch.php?media=4_examples_of_unnecessary_reports.docx. This compilation of examples can be used to improve justification of reporting requirements or to further streamline permit reporting requirements.

B. Options for Small, Disadvantaged Communities

Consider reporting alternatives for small, disadvantaged communities.

If the Discharger is a small, disadvantaged community, Water Board staff should work with the Discharger to evaluate reporting alternatives. The permit writer can coordinate with the Division of Financial Assistance to confirm that the facility is a small disadvantaged community. The Division of Financial Assistance also has information on the Small Community Wastewater Strategy, which promotes assistance to small and/or disadvantaged communities with wastewater needs. For more information, permit writers can visit:

http://www.waterboards.ca.gov/water_issues/programs/grants_loans/small_community_wastewater_grant/strategy.shtml.

Permit writers should include discussion in the Fact Sheet regarding the Water Board's consideration of a Discharger's request for reporting alternatives and justification for the Water Board's decision. Changes regarding existing monitoring and reporting requirements for the previous permit term should be properly documented in the Fact Sheet.