# Instructions

Use this template to prepare a Water Quality Monitoring Protection Plan (WQMPP), if requested by the Department of Ecology, for projects that will require an **Individual 401 certification/Water Quality Certification (WQC)** prior to construction. Ecology typically requests a WQMP or equivalent information at the time of application submittal. For larger, more complex projects and as requested by Ecology, use the WQMPP to provide reasonable assurance that water quality will be protected.

Before you use the template, please keep the following in mind:

* For ease of review, place information in the most appropriate section.
* Use figures, photos, plan sheets, and accurate and legible hand, or computer-drafted drawings to supplement text where possible.
* For additional guidance on sampling for PH and turbidity, refer to the [Temporary Erosion and Sediment Control Manual](https://wsdot.wa.gov/Publications/Manuals/M3109.htm).
* This template was created with general project needs in mind. More complex projects may require additional information. **Work with your Ecology liaison/reviewer to determine the level of detail needed.**
* This template is to be used as a tool that is built upon to provide detail on protections, monitoring and contingencies and must be updated with the contractor.

## Directions

Provide the information requested in all green text areas. After you click on the green text, your added text will automatically format from green to black fonts. When cutting and pasting data into the template from another electronic file make sure the data doesn’t contain formatting styles like Headings and Titles. If there is formatting carried over from your original document, highlight it first and then change the format in the Home tab.

Here are step by step directions to complete the document:

1. Remove the instruction for this template prior to submittal.
2. Attach plan sheets, figures, photos, and hand drawings electronically or paper copy.
3. Update the Table of Contents by selecting the content box and clicking update to update the entire table.
4. Prior to performing any in-water work, submit the updated document to the Ecology 401 reviewer for approval.

In-Water Work

Water Quality Monitoring & Protection Plan for Individual 401.

Project Name

 Stream/Waterbody Name(s)

Date

**Prepared By:**

Name of Preparer

Office Phone Number

**WSDOT Contract Number**

**WSDOT WIN Number**

**Project Engineer:**

**Construction Engineer’s Name**

**Construction Engineer’s Phone Number**

 

Contents

[Instructions: 1](#_Toc65659123)

[Directions: 1](#_Toc65659124)

[Step by Step Directions: 1](#_Toc65659125)

[**Chapter 1. Introduction** 5](#_Toc65659126)

[1.1 Purpose 5](#_Toc65659127)

[1.2 Objectives 5](#_Toc65659128)

[1.2.1 Compliance with other relevant Laws and Policies 5](#_Toc65659129)

[**Chapter 2. Project overview** 5](#_Toc65659130)

[2.1 Project Delivery method 5](#_Toc65659131)

[2.2 Responsible parties 6](#_Toc65659132)

[2.2.1 Contractor 6](#_Toc65659133)

[2.2.2 WSDOT Construction Engineering Office 6](#_Toc65659134)

[2.3 Project area and scope 6](#_Toc65659135)

[2.4 Description of in/over water activities 6](#_Toc65659136)

[2.5 Equipment 7](#_Toc65659137)

[**Chapter 3. Water Quality Standards** 7](#_Toc65659138)

[3.1 Turbidity 7](#_Toc65659139)

[3.2 pH 7](#_Toc65659140)

[3.3 TMDL 7](#_Toc65659141)

[3.4 Approved Mixing Zones 7](#_Toc65659142)

[**Chapter 4. Best Management Practices** 7](#_Toc65659143)

[4.1Insert BMP name. 8](#_Toc65659144)

[4.2 Insert BMP name. 8](#_Toc65659145)

[4.3Insert BMP name. 8](#_Toc65659146)

[**Chapter 5. Monitoring Plan** 8](#_Toc65659147)

[5.1 Routine monitoring schedule 8](#_Toc65659148)

[5.2 Routine monitoring duration 9](#_Toc65659149)

[5.3 Sampling Locations 9](#_Toc65659150)

[5.4 Sampling procedures 9](#_Toc65659151)

[5.5 Contingency Monitoring 9](#_Toc65659152)

[5.6 Non-compliance 10](#_Toc65659153)

[Violation Reporting 10](#_Toc65659154)

[**Chapter 6. Reporting and Inspection** 11](#_Toc65659155)

[Certification statement: 11](#_Toc65659156)

[Appendix A, attachments 12](#_Toc65659157)

[A.1 Plan sheets 12](#_Toc65659158)

[A.2 Sample location map(s) 13](#_Toc65659159)

[Appendix A. 3 Sampling Form for In-Water Work 14](#_Toc65659160)

#

# **Chapter 1. Introduction**

## 1.1 Purpose

The purpose of this Water Quality Monitoring Protection Plan (WQMPP) is to guide the planning, implementation, monitoring, and performance of best management practices (BMPs) used during in-water work for Project Name (Project). The WQMPP must be approved by Ecology preferably 20 days prior to work starting. Delete this section and the following sentence in this section prior to submittal.

 Ecology requested this WQMPP as a condition of the Water Quality Certification for the Project, in accordance with Section 401 of the Clean Water Act.

## 1.2 Objectives

The objectives of this WQMPP include:

* Providing guidelines for site specific methods for meeting water quality standards.
* Documenting the water quality parameters to be measured during in-water work.
* Documenting performance standards and monitoring protocol to be used during in-water work for the Project

### 1.2.1 Compliance with other relevant Laws and Policies

The Project has been designed to meet state and federal agency policies and guidelines using a multidisciplinary approach that includes coordination with state and federal resource and permitting agencies.

The Project will comply with Section 404 (33 U.S.C 1344) and 401 (33 U.S.C. 1341) of the Clean Water Act. All waters under the jurisdiction of the U.S. Army Corps of Engineers that will be impacted are identified in the permit application and Wetland and Stream Mitigation Report for the Project. The application and associated attachments submitted for the Project provide an overview of both physical and procedural BMPs that will be employed for in-water activities. The application also includes cut/fill areas and volumes for aquatic resource impacts.

*Any proposed changes to monitoring must be approved by Ecology prior to making any changes.*

# **Chapter 2. Project overview**

Provide a brief description of the entire project. Include any information on HPAs and approved in water work windows if available.

The Project is designed to meet current Washington State Water Quality standards (Washington Administrative Code [WAC] 173 201A) for all in-water work activities.

## 2.1 Project Delivery method

The Project will be constructed using the insert method of project delivery.

## 2.2 Responsible parties

The following are the assigned contacts for this project.

### 2.2.1 Contractor

* Project Manager: Name and contact information
* Superintendent: Name and contact information
* Erosion and Sediment Control Lead: Name and contact information

### 2.2.2 WSDOT Construction Engineering Office

* Project Engineer: Name and contact information
* Assistant Project Engineer: Name and contact information
* Chief Inspector: Name and contact information
* Project Inspector: Name and contact information
* Environmental Compliance Inspector: Name and contact information

## 2.3 Project area and scope

Project location: Insert narrative text here. Include Latitude and Longitude and any information regarding contamination if known.

Waterbody information where activities will occur:

* Name(s) of waterbodies.
* Include nearest city, county, Water Resources Inventory Area (WRIA), river basin, and sub-basin.
* List all streams where the project has in-water work. Refer to project location maps, and include a vicinity map.

### 2.4 Description of in/over water activities

Include narrative information on what in/over water activities will occur in what locations. Include items like on-site concrete pouring/handling and whether or not recycled concrete is proposed or likely. Fill in table below to summarize.

Table 1 In water/overwater work activity

|  |  |  |
| --- | --- | --- |
| **Waterbody** | **In-water/Over-water Work Activity** | **BMPs to protect water quality** |
| Water Body Name. | Insert all in and over water activities. | Insert BMPS. |
| Water Body Name. | Insert all in and over water activities. | Insert BMPS. |
| Water body Name. | Insert all in and over water activities. | Insert BMPS. |
| Water body Name. | Insert all in and over water activities. | Insert BMPS. |
| Water body name. | Insert all in and over water activities.  | Insert BMPS. |

#### 2.4.1 Streams and Rivers

Insert information on what work will impact, or occur within banks of the river or boundaries of the wetland. Be sure to include access points and crossings as well and any groundwater impacts such as during dewatering etc.

### 2.5 Equipment

List what equipment will be used in or near the water and what measures will be taken to maintain the equipment and prevent spills or leaks.

# **Chapter 3. Water Quality Standards**

## 3.1 Turbidity

Provide the criteria for turbidity from WAC 173-201A-200 for the aquatic life use for each water body where the project will have in-water work.

## 3.2 pH

Provide the criteria for pH from WAC 173-201A-200 for the aquatic life use for each water body where the project will have in-water work and a description of work that may impact pH if applicable.

## 3.3 TMDL

If your project is in a 303(d) listed water body and/or has an established Total Maximum Daily Load (TMDL), contact Region Environmental to determine if additional criteria need to be included.

## 3.4 Approved Mixing Zones

Address any approved mixing zones based on design here, state TBD and included by contractor if design build.

# **Chapter 4. Best Management Practices**

BMPs will be in place throughout the Project, using an adaptive management approach and in compliance with all permits and approvals obtained for the Project. Procedures and BMPs for the various proposed work activities that will occur over the water or below the OHWM are outlined in more detail below. Water quality monitoring will occur for the duration of construction activities that occur below the OHWM or over water at each work location.

 Make sure to add more BMP section headers if needed. As work onsite progresses, changes to the BMPS need to be reflected in the TESC plan or SWPPP.

## 4.1Insert BMP name.

Provide BMP specifics, why was this BMP chosen, describe activity, location and details like landscape, infrastructure etc. If design build, provide a statement on potential changes to be determined based on final design.

## 4.2 Insert BMP name.

Provide BMP specifics, why was this BMP chosen, describe activity, location and details like landscape, infrastructure etc. If design build, provide a statement on potential changes to be determined based on final design.

## 4.3Insert BMP name.

Provide BMP specifics, why was this BMP chosen, describe activity, location and details like landscape, infrastructure etc. If design build, provide a statement on potential changes to be determined based on final design.

# **Chapter 5. Monitoring Plan**

Routine monitoring occurs until or unless an issue is detected. The project will follow contingency schedules until returned to compliance and will follow WSDOT’s established Environmental Compliance Assurance Procedure (ECAP) procedures.

Insert narrative on what sampling equipment will be used, what monitoring methods and what steps will be taken to calibrate or ensure equipment is in good working order.

## 5.1 Routine monitoring schedule

Table 2 Routine monitoring schedule and activities table

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| In-Water Activity | Waterbody | Background | Monitoring Point Location | Frequency | Parameter | Water Quality Standard | Mixing zones |
| Insert activity. | Insert waterbody. | Insert background. | Insert location. | Insert frequency. | Insert parameter. | Insert WQ standard. | Insert Mixing Zone. |
| Insert activity. | Insert waterbody. | Insert background. | Insert location. | Insert frequency. | Insert parameter. | Insert WQ standard. | Insert Mixing Zone. |
| Insert activity. | Insert waterbody. | Insert background. | Insert location. | Insert frequency. | Insert parameter. | Insert WQ standard. | Insert Mixing Zone. |
| Insert activity. | Insert waterbody. | Insert background. | Insert location. | Insert frequency. | Insert parameter. | Insert WQ standard. | Insert Mixing Zone. |
| Insert activity. | Insert waterbody. | Insert background. | Insert location. | Insert frequency. | Insert parameter. | Insert WQ standard. | Insert Mixing Zone. |
| Insert activity. | Insert waterbody. | Insert background. | Insert location. | Insert frequency. | Insert parameter. | Insert WQ standard. | Insert Mixing Zone. |

### 5.2 Routine monitoring duration

Insert narrative on routine monitoring, include physical sampling and visual sampling in step by step order. Include triggers for physical sampling, etc.

### 5.3 Sampling Locations

Sampling locations will be located within the areas shown in Attachment A.2 for work activities below the OHWM and/or in wetlands or activities that may affect water quality. Sampling locations will include upstream and downstream results to establish background and discharge values.

Insert site specific information for sampling locations.

### 5.4 Sampling procedures

Insert sampling specifics here, be sure to include equipment type and calibration, methods and information collected. For more information, please refer to the Temporary Erosion and Sediment Control Manual.

## 5.5 Contingency Monitoring

Use the narrative below or explain what will be done if:

* Physical sampling shows there is a problem at an early warning monitoring point.
* Visual sampling triggers physical sampling.
* Monitoring at the compliance point shows an exceedance and what actions will be taken at that point for additional sampling and BMP fixes etc. Include who will be contacted onsite and what changes to be implemented.
* How will exceedances be verified and by whom.
* What reports will be sent by when and to whom.
* Delete unused text.

**Exceedance of water quality standards:**

If visual/physical sampling indicates an exceedance of water quality standards or a condition of your permits or approvals, take the following steps:

1. If visual monitoring indicates a possible exceedance, the Design-Builder must immediately take a physical sample to confirm exceedance of water quality standards.
2. Design-Builder to immediately stop the work activity that is causing the exceedance;
	1. The Design-Builder must continue physical sampling every hour until there are two consecutive samples that are back in compliance.
	2. The Design-Builder must document the work activities that caused the exceedance.
	3. Document exceedance testing/activity using the attached “Sampling Form for In-Water Work” and retain all records on-site to be provided to WSDOT/Ecology upon request.
3. Design-Builder will immediately notify the WSDOT inspector.
4. WSDOT inspector to notify WSDOT Environmental Coordinator.
5. WSDOT Environmental Coordinator/Environmental Manager to initiate the Environmental Compliance Assurance Procedure (ECAP) immediately; see the Construction Manual, SS1-07.5. Ensure immediate notification is made to the necessary regulatory agencies;
6. WSDOT to discuss with the Design-Builder ways to adjust in-water work methods or means.
7. Consider additional BMPs that could be used to prevent the issue from reoccurring; and
8. When sampling indicates that the exceeded parameters are back in compliance, the in-water work activity may resume.

Sampling for pH is required in the event there is an unauthorized discharge from concrete activities. If a discharge occurs the following sampling should be done:

1. Design-Builder to notify WSDOT immediately following an unauthorized discharge.
2. WSDOT will notify Ecology within 24 hours of an unauthorized discharge.
3. Collect a sample of the slurry (if possible, there may not be any slurry left) that discharged to state waters and test for pH.
4. Collect a water sample from the waterbody at the point where material entered the water (or as close as possible within a 50 foot radius\*) and use a pH meter or test strips to test for pH.
	1. It is important to collect this sample as soon as possible after the discharge occurs\*\*.
	2. If the sample cannot be safely collected within that first 30 minutes, document that and proceed with reporting the incident in the on-site log book.

Design-Builder to report description of work activity and estimated volume of high pH substance causing exceedance. Retain all records on-site to be provided to WSDOT/Ecology upon request.

Visual monitoring will be conducted throughout the life of the project during all in-water work. If State Water Quality Standards are exceeded, the Contractor will stop work at that location until corrections are satisfactorily completed and the WSDOT Environmental Compliance Assurance Procedure (ECAP) will be initiated. Exceedances will be reported to Ecology within 24 hours of any exceedance events and a 5 day report submitted.

Table 3 summarizes the contingency sampling protocol.

*Table 3 Contingency sampling monitoring parameters and schedules for in water work activities*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Parameter** | **Contingency Frequency** | **Contingency Sampling Location(s)** | **Water body** | **Results** | **Water Quality Standard** |
| Turbidity | Hourly |  |  |  | See Standards in chapter 3 |
| pH | Hourly |  |  |  | See Standards in chapter 3 |
| Oil/Grease | Continuous-Visual |  |  |  | No Sheen |

## 5.6 Non-compliance

WSDOT and the design-build contractor will follow proper and established notification requirements for reporting all monitoring results. If water quality standards are exceeded through either visual or physical monitoring, notification and reporting procedures will be followed as described in this document and subsequent Ecology permits for the Project.

If non-compliance is observed:

* Immediately stop the work that is contributing to a water quality problem.
* The site monitor (Environmental Compliance Inspector, or ECI) will immediately notify the Contractor Supervisor and the WSDOT Project Engineer (PE) of any apparent failures to meet permit compliance or BMP outcomes.
* The ECI, Contractor Supervisor and WSDOT PE will initiate the Environmental Compliance Assurance Procedure (ECAP) immediately and ensure immediate notification is made to the necessary regulatory agencies and/or tribes per ECAP. See “Violation Reporting” below.
* The ECI and Contractor Supervisor will provide recommendations for corrective action to avoid impacts and achieve BMP outcomes as appropriate.
* Sampling will continue so the amount of time that the project was out of compliance can be quantified. When sampling indicates that the exceeded parameters are back in compliance, the in water work may resume.

### Violation Reporting

In cases where regulations or permits are not complied with, the WSDOT PE will notify the Region Environmental Manager and the Region Area Superintendent.

If the work results in a violation occurring, the following reporting process will be followed:

* On-site personnel will immediately notify the Contractor Supervisor, Region Environmental Manager, and Region Area Superintendent. Notification will include a description of the activity that triggered the violation, time and location of work, potential solutions to the problem, how to prevent the situation in the future, and any related constraints or safety issues.
* The Region Environmental Manager and WSDOT PE serves as the lead for resolving the issue that caused the violation. The Region Environmental Manager will make, or delegate, all required notifications to regulatory agencies.

# **Chapter 6. Reporting and Inspection**

All water quality monitoring results (visual and physical) will be documented and retained using the attached monitoring results reporting form (Attachment A

All sample results will be submitted monthly to the Federal Project Coordinator as described in Project permits. If sampling indicates a violation of water quality standards, the federal project coordinator will be notified immediately. See WSDOT Environmental Compliance Assurance Procedure (ECAP).

All in-water sampling results and notifications will be sent to insert contact name and contact information.

 Department of Ecology, the Ecology Permit Lead for the Project at (XXX) XXX-XXXX and XXX.XXX@ECY.WA.GOV.

# Certification statement:

*“The project proponent hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief.”*


# Appendix A, attachments

## A.1 Plan sheets

## A.2 Sample location map(s)

## Appendix A. 3 Sampling Form for In-Water Work

**Project:**

**Date:**

**Name of person sampling:**

**Waterbody(s):**

**Equipment model:**

**Equipment calibration date and method:**

**Activity description:**

**Activity start time:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sample Location** | **Monitoring Point** | **Time** | **Turbidity/NTUs** | **Sheen?** | **Notes (include weather, waterbody flow in cfs, other observations of waterbody, etc.)** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

\*If you have a 401 Water Quality Certification from Ecology, submit sampling data each month to the Federal Project Coordinator listed in the permit.