SCOPING QUESTIONNAIRE for
WATER QUALITY ISSUES



California Department of Transportation
Division of Environmental Analysis
1120 N Street
Sacramento, CA 95814
December 2022

# Acronyms and Abbreviations

| **Acronym** | Definition |
| --- | --- |
| **ADL** | Aerially Deposited Lead |
| **ASBS** | Areas of Special Biological Significance |
| **BMP** | Best Management Practices |
| **Caltrans** | California Department of Transportation |
| **CGP** | Construction General Permit |
| **CWA** | Clean Water Act |
| **DEA** | Division of Environmental Analysis |
| **DPP** | Design Pollution Prevention |
| **DWR** | Department of Water Resources |
| **ESA** | Environmentally Sensitive Area |
| **ESL** | Environmental Study Limits |
| **GIS** | Geographic Information System |
| **HDM** | Highway Design Manual |
| **HSA** | Hydrologic Sub-Areas |
| **MS4** | Municipal Separate Storm Sewer System |
| **NAL** | Numeric Action Level |
| **NEL** | Numeric Effluent Limit |
| **NPDES** | National Pollutant Discharge Elimination System |
| **NRCS** | Natural Resources Conservation Services |
| **PA&ED** | Project Approval and Environmental Document |
| **PCTA** | Post Construction Treatment Area |
| **PEAR** | Preliminary Environmental Analysis Report |
| **PE** | Project Engineer |
| **Permit** | Caltrans MS4 Permit |
| **PID** | Project Initiation Document |
| **PPDG** | Project Planning and Design Guide |
| **PS&E** | Plans, Specifications, and Estimates |
| **SER** | Standard Environmental Reference |
| **STGA** | Significant Trash Generating Areas |
| **SWPPP** | Stormwater Pollution Prevention Plan |
| **SWRCB** | State Water Resources Control Board |
| **TBMP** | Treatment BMP |
| **TMDL** | Total Maximum Daily Load |
| **WQAR** | Water Quality Assessment Report |
| **WQO** | Water Quality Objective |

# Introduction

This document was developed to aid in the environmental assessment of a project for water quality impacts by asking a series of questions. It is expected that discussions with other functional units will be needed; these suggested units are listed, although some tasks may fall under other functional units in some Districts. This checklist should be completed during the Project Initiation Document (PID) phase with the information available and updated when preparing the Water Quality Assessment Report (WQAR).

Prior to using this scoping questionnaire, the writer of the WQAR should know, obtain, or determine:

* The description of the project; obtain project location map or layout sheets (if available).
* The general hydrology, including general climate, annual precipitation and seasonal distribution, floodplains, and occurrence of natural or highly altered drainage courses.
* The general environmental setting.

Many of the questions refer the preparer to the [Caltrans Standard Environmental Reference (SER)](https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser). For additional guidance on Caltrans Water Quality and Stormwater the preparer is referred to the [Caltrans Stormwater Management program website](https://dot.ca.gov/programs/environmental-analysis/stormwater-management-program). Additional references and links are listed in section D.

## Existing Conditions in the Affected Environment of the Project

Responses to these questions are typically needed during the PID phase of the project for the Preliminary Environmental Analysis Report (PEAR); if responses cannot be made at this stage, consider the question during the next phase.

1. What is the receiving water body? Has a Total Maximum Daily Load (TMDL) been established for the receiving waters? Has Caltrans been named as a responsible party and/or been assessed a Waste Load Allocation? If yes, is the TMDL one of those 65 listed on the Time Schedule Order in the Attachment of the Caltrans Municipal Separate Storm Sewer System (MS4) Permit? Are there any location-specific requirements for the project area/receiving water body (if yes, identify the constituents of concern)? Refer to Attachment D of the Caltrans MS4 Permit found on the [California State Water Resources Control Board website](https://www.waterboards.ca.gov/water_issues/programs/stormwater/caltrans.html). Consult with District NPDES Coordinator.
2. Does the project include TMDL pollutants subject to Construction General Permit (CGP) requirements for Numeric Action Level (NAL)/Numeric Effluent Limit (NEL) sampling when there is a discharge of a non-visible TMDL, listed on Tables H1 to H3 of Attachment H of the [2022 CGP](https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2022/wqo_2022-0057-dwq.pdf), due to lack of installation or failure of a Best Management Practice (BMP) or a spill? For non-visible TMDLs, site sampling is needed. This sampling needs to be at the same stage when soil sample is analyzed for Aerially Deposited Lead (ADL). Consult with District NPDES Coordinator.
3. Are there existing treatment BMPs in the proposed project limits? Consult with District NPDES Coordinator, and Maintenance.
4. Is the site within a Significant Trash Generating Area (STGA)? Refer to the Stormwater GIS Library. Consult with District NPDES Coordinator.
5. Is the site within an Area of Special Biological Significance (ASBS)? See Caltrans MS4 Permit Attachment C, Table C-1. Refer to the Stormwater GIS Library. Consult with District NPDES Coordinator.
6. Is the project site within the watershed of Lake Tahoe or Mono Lake? Refer to [SWRCB Resolution 68-16](https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/1968/rs68_016.pdf), an Antidegradation Analysis may be required. Consult with District NPDES Coordinator.
7. Is the project site within the jurisdictional boundaries of a Wild and Scenic River? See Caltrans SER Volume 1, Chapter 19, Wild and Scenic Rivers. Consult with District Environmental.
8. Will the project impact a domestic or municipal drinking water resource, water recharge facility, or other “high risk” areas (e.g., would runoff be directed into a “drinking water reservoir or water recharge facilities”)? Consult with District NPDES Coordinator.
9. Would any downstream HSAs (hydrologic sub-areas) be impacted? Consult with District NPDES Coordinator.
10. Will site development permanently alter the alignment of a stream or the configuration of the water body? Refer to SER Volume 1, Chapters 14, Biological Resources and 15, Waters of the U.S. and the State. Consult with Project Engineer, District Hydraulics, and District NPDES Coordinator.
11. Are there wetlands, special aquatic site(s), or endangered aquatic or wetland-dependent species, within the project limits that will be affected by the project? Refer to SER Volume 1, Chapters 14, Biological Resources and 15, Waters of the U.S. and the State. Consult with District Environmental.
12. What is the quality of and depth to groundwater within the project area? Would groundwater be reasonably expected to be affected by the project? See also the [Department of Water Resources (DWR) ground water monitoring station data library](https://wdl.water.ca.gov/waterdatalibrary/Map.aspx). Consult with District Hydraulics, District Environmental, and District NPDES Coordinator.
13. Are there known hazardous materials above or below ground that would be affected by the project? Refer to SER Volume 1, Chapter 10, Hazardous Materials, Hazardous Waste, and Contamination. Local environmental departments may maintain a list of known groundwater pollutant plumes. Consult with District Environmental, and District NPDES Coordinator.
14. Are there fish passage issues that will affect the project? Refer to Caltrans SER Volume 3, Chapter 5, Biological Mitigation. Consult with District Environmental, and District Hydraulics.
15. Will the project encroach within a floodplain? Refer to Caltrans SER Volume 1, Chapter 17, Floodplains; Consult with Project Engineer, District Hydraulics, and District NPDES Coordinator.
16. Does information available at this time suggest that other Environmentally Sensitive Areas (ESAs) not already mentioned are present within the project limits? Consult with District Environmental.
17. Will the discharges cause any of the following conditions that would create a condition of nuisance or adversely affect beneficial uses of waters of the U.S. or State?
* Floating, suspended solids, or deposited macroscopic particulate matter, or foam.
* Bottom deposits or aquatic growths.
* Alteration of temperature, turbidity, or apparent color beyond present natural background levels.
* Visible, floating, suspended, or deposited oil or other products of petroleum origin.
* Toxic or deleterious substances present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption. Refer to the Caltrans MS4 Permit, Order No. 2022-XXXX-DWQ, Provision 5.0. Consult with District NPDES Coordinator.
1. Has a determination been made for the possible hydrologic impacts to the downstream receiving waterbody (e.g., increase in volume of runoff; change in the time of concentration; change in the duration of the runoff)? Consult with District NPDES Coordinator, Project Engineer, and District Hydraulics.
2. Will the project involve a depressed section drained by a pump? If yes, are dry weather flows anticipated (e.g., drainage of the groundwater)? Consult with Project Engineer and District Hydraulics.
3. Are chemical applications used for vegetation management areas (e.g., 4’ to 10’ wide widths for fire suppression or control of invasive weeds) that may affect the location and feasibility of vegetated BMPs? It is estimated over 80% of the State Highway System has chemical applications. Consult with District Landscape Specialist, District Maintenance Coordinator, and District NPDES Coordinator.

## Project Description and Impacts

Responses to these questions are typically needed during preparation of the PEAR (in the PID phase) but should also be reviewed during the development in the PA&ED phase of the project; if responses cannot be made at this stage, consider the question during the next phase. Note: temporary impacts (i.e., during construction) are addressed in Section C.

1. What is the estimated new impervious surface area, is it greater than 10,000 SF? What is the approximate Post Construction Treatment Area (PCTA)? Refer to Caltrans Stormwater Quality Handbook-Project Planning and Design Guide. Consult with Project Engineer and District NPDES Coordinator.
2. Based on the post-construction requirement of the Caltrans MS4 2022 permit, what type of post-construction measures will be implemented? Have selections been made for the Design Pollution Prevention (DPP) BMPs and Treatment BMPs (TBMPs)? Note: Selection for the DPP and treatment BMPs are needed by PA&ED so that environmental study limits (ESL) are wide enough to include the placement of TBMPs and if TBMPs are found not to be feasible to begin development of an alternative compliance plan. Consult with District NPDES Coordinator, Project Engineer, and District Hydraulics.
3. What is the conceptual roadway drainage system, including any part of an existing system that will be incorporated (e.g., outfalls, sump areas used for percolation)? Consult with Project Engineer and District Hydraulics.
4. Are there known or reasonably expected (surface) water quality issues that will arise due to the project associated with the general topography (e.g., large cuts/fill) or soil properties (e.g., known highly erosive soils)? Consult with District Materials, District Landscape Architecture, and District NPDES Coordinator.
5. Will the discharge of stormwater from the proposed facility or activity cause or contribute to a violation of water quality standards or water quality objectives (collectively WQSs)? Has the RWQCB indicated to Caltrans that its discharges in the receiving water body are causing or contributing to an exceedance of an applicable WQS? Refer to the Caltrans MS4 Permit, Order No. 2022-XXXX-DWQ, Provision 3.4 and 5.1.1.
6. Will soil containing aerially deposited lead be proposed for reuse? Note: special handling and soil placement conditions, and permitting, may be required; consider again during PS&E. Consult with Project Engineer and District Environmental.
7. Are there any other projects within the immediate project vicinity that would likely be constructed within the same general timeframe as the project that would also contribute to the volume of surface water discharged, groundwater affected, and pollutants discharged into receiving waters? Consult with Project Engineer and District NPDES Coordinator.
8. Will the project require a Clean Water Act (CWA) Section 404 permit from the U.S. Army Corps of Engineers and therefore a Section 401 Water Quality Certification from the RWQCB? If yes, then inquire further regarding the conditions imposed by the local RWQCB on such certifications. Consult with District Environmental.
9. Have Maintenance needs for safe access to maintain TBMPs (e.g., wider shoulders or addition of pullout areas) and vegetation management been discussed with the Maintenance Stormwater Coordinator? Consult with Project Engineer, District Landscape Specialist, District Maintenance Coordinator, and District NPDES Coordinator.

## Temporary (Construction) Effects

Responses to these questions are typically finalized with the project’s PS&E but should also be reviewed during the development of the PEAR (in the PID phase) and estimated during the PA&ED phase of the project. Note: all activities mentioned will be subject to the Contractor’s SWPPP and any requirements placed in the Contract Plans and Special Provisions (e.g., restrictions on use of ESAs).

1. What is the acreage of clearing and grubbing activities? Obtain from Project Engineer.
2. What is the acreage of disturbed soil area not included above? Obtain from Project Engineer.
3. What is the acreage (plan view) of new cut and fill slopes greater than 4H:1V and 2H:1V? Obtain from Project Engineer.
4. What is the quantity of imported borrow? Obtain from Project Engineer.
5. Is storage or stockpiling of earthwork or construction materials near water bodies or ESAs under consideration? Consult with Project Engineer, District Construction Stormwater Coordinator, and District Environmental.
6. Is a sand blasting operation or structure demolition over streams or water bodies expected? Consult with Project Engineer.
7. How many construction activities below groundwater and/or in-water courses requiring dewatering or water diversion (includes use of cofferdams, pipe jacking, etc.) are expected? Note: Testing of the groundwater should be conducted to determine quality of the effluent, and special permit(s) may be required by the RWQCB. See also California Department of Water Resources Groundwater Monitoring Library. Consult with Project Engineer, District NPDES Coordinator, and District Construction Stormwater Coordinator.
8. Are unpaved access roads expected to be used as part of the project? Consult with Project Engineer, District NPDES Coordinator, and District Construction Stormwater Coordinator.
9. Are there any seasonal construction restrictions or construction exclusion dates set forth by state or local regulatory agencies that are applicable to the project area? Consult with Project Engineer, District NPDES Coordinator, and District Construction Stormwater Coordinator.
10. Has a Construction General Permit “Risk Assessment” been conducted, and are there implications from that rating (see 2022 CGP, Attachment D)? Consult with Project Engineer, District NPDES Coordinator, and District Construction Stormwater Coordinator.
11. Has a Total Maximum Daily Load (TMDL) that is identifiable as applicable to construction stormwater discharge covered under the CGP been established for the receiving waters? Refer to the CGP Permit, Attachment H.
12. Are there are any other construction activities anticipated not covered in the previous questions that could raise potential stormwater runoff issues? Consult with Project Engineer and District NPDES Coordinator.
13. Can a SWPPP be developed and implemented such that stormwater discharges and authorized non-storm water discharges will not adversely impact human health or the environment? Can a SWPPP be developed and implemented such that storm water discharges and authorized non-storm water discharges shall not cause or contribute to an exceedance of any applicable water quality standards contained in a Statewide Water Quality Control Plan and/or applicable Basin Plan? Refer to the Caltrans MS4 Permit, Order No. 2022-XXXX-DWQ, Provisions 3.4 and 5.1.1. Consult with Project Engineer and District NPDES Coordinator.
14. Is Passive Treatment required for this project? Refer to the CGP Attachment G. Consult with Project Engineer and District NPDES Coordinator.
15. Is the receiving water on the CWA Section 303(d) list as impaired for sediment, turbidity and/or temperature? Consult with District NPDES Coordinator.

## References

The following references and links may help with gathering information for WQARs:

* [Caltrans Division of Design Stormwater homepage](https://dot.ca.gov/programs/design/hydraulics-stormwater) for guidance and tools (Project Risk Level, Estimating for CGP, Erosion Prediction software, etc.)
* [Caltrans Division of Environmental Analysis Homepage](https://dot.ca.gov/programs/environmental-analysis)
* For wetlands, hydromorphic method and water assessment information, see [SER, Volume 1, Chapter 15 - Waters of the U.S. and the State](https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/volume-1-guidance-for-compliance/ch-15-waters-of-the-us-and-state)
* For hydraulic studies and floodplain encroachment information, see [SER, Volume 1, Chapter 17 - Floodplains](https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/volume-1-guidance-for-compliance/ch-17-floodplains)
* For Coastal Zone permits information, see [SER Volume 5 - Coastal Requirements](https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/volume-5-coastal-requirements)
* For Wild and Scenic Rivers information, see [SER Volume 1, Chapter 19 - Wild and Scenic Rivers](https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/volume-1-guidance-for-compliance/ch-19-wild-scenic-rivers)
* Groundwater – [California Department of Water Resources Groundwater Data Library](https://wdl.water.ca.gov/waterdatalibrary/Map.aspx)
* [Caltrans Stormwater Quality Handbook Project Planning and Design Guide (PPDG)](https://dot.ca.gov/programs/design/manual-project-planning-design-guide)
* Caltrans Stormwater Quality Practice Guidelines: [Caltrans Stormwater Management Program](https://dot.ca.gov/programs/environmental-analysis/stormwater-management-program)
* [Caltrans Water Quality Planning Tool](http://svctenvims.dot.ca.gov/wqpt/wqpt.aspx)
* [Regional Water Quality Control Board website and Basin Plans](https://www.waterboards.ca.gov/plans_policies/)
* CGP - State Water Resources Control Board National Pollutant Discharge Elimination System (NPDES) General Permit For Stormwater Discharges Associated with Construction and Land Disturbance Activities, ORDER WQ 2022-0057-DWQ, NPDES No. CAS000002 (CGP Permit): [Statewide Construction General Permit](https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2022/wqo_2022-0057-dwq.pdf)
* Caltrans Permit - State Water Resources Control Board ORDER 2022-XXXX-DWQ, NPDES No. CAS000003, Statewide Stormwater Permit and Waste Discharge Requirements for State of California Department of Transportation: [Caltrans (MS4) Program](https://www.waterboards.ca.gov/water_issues/programs/stormwater/caltrans.html)
* [State Water Resources Control Board Watershed Management](https://www.waterboards.ca.gov/water_issues/programs/watershed/)
* [United States (U.S.) Environmental Protection Agency Section 404(b)(1) guidelines](https://www.epa.gov/cwa-404/cwa-section-404b1-guidelines-40-cfr-230)
* [U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS), Web Soil Survey](https://websoilsurvey.nrcs.usda.gov/app/HomePage.htm)

For Caltrans documents, use the latest version when a date is not listed. Note also that design guidance can be provided in Design Information Bulletins, and other documents that are not listed.