Revised

SCOPING QUESTIONNAIRE

FOR

WATER QUALITY ISSUES

California Department of Transportation
Division of Environmental Analysis
1120 N Street
Sacramento, CA 95814
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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 units are suggested in brackets, although some tasks may fall under other functional units in some Districts.

Prior to using this scoping questionnaire, the writer of the environmental document 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, occurrence of natural or highly altered drainage courses;
- General environmental setting.

It is anticipated that users of this checklist will have a background in the various SER chapters, but users should especially consult the DEA website for the release of Chapter 9, Water Quality/Stormwater, under development at time of printing.

A. 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 PEAR document); if responses cannot be made at this stage, consider the question during the next phase.

1) What is the receiving water body, and what are the Basin Plan requirements for it (e.g., what are the beneficial uses, is the receiving water listed for 303(d) impairment, and/or established TMDLs)? Does the Department discharge storm water from the highways causing or contributing to the reasons for the impairment of the receiving water?

2) Does the Permit have any a location-specific requirement for the project area/receiving water body (if yes, identify the constituents of concern)? See Permit, Section L; SWMP Section 10; or PPDG, Section 2.
[District NPDES]

3) Is the site within an ASBS area (Area of Special Biological Significance)?
[District Environmental, District NPDES]

4) Is the project site within the watershed of Lake Tahoe or Mono Lake?
Consideration aid: Antidegredation policies (refer to SWRCB Resolution 68-16), and an Antidegredation Analysis may be required
[District Environmental]

5) Is the project site within the jurisdictional boundaries of a Wild and Scenic River?
Environmental reference: SER VOL. 1, Chapter 19;
[District Environmental]

6) 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”)?
[District NPDES]

7) Would any downstream HSAs (hydrologic sub-areas) be impacted?

8) Will site development permanently alter the alignment of a stream or the configuration of the water body? See also SER VOL. 1, Chapters 14 and 15
[Project Engineer, Project Engineer, District Hydraulics, District NPDES]

9) 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? See also SER VOL. 1, Chapters 14 and 15
[District Environmental]

10) What is the quality of and depth to groundwater within project area? Would groundwater be reasonably expected to be affected by the project?
[District Hydraulics, District Environmental, District NPDES]

11) Are there known hazardous materials above or below ground that would be affected by the project? See SER VOL. 1, Chapter 10, Hazardous Waste (in progress at time of writing) Consideration aid: local environmental departments may maintain a list of known groundwater pollutant plumes.
[District Environmental, District NPDES]

12) Are there fish passage issues that will affect the project?
Environmental reference: SER VOL. 3, Chapter 5; [District Environmental, District Hydraulics]

13) Will the project encroach within a floodplain?
Environmental reference: SER VOL. 1, Chapter 17;
Technical reference: HDM Chapter 804;
[Project Engineer, Project Engineer, District Hydraulics, District NPDES]

14) Does information available at this time suggest that other ESAs (environmentally sensitive areas) not already mentioned are present within the project limits?
[District Environmental]

B. 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 approximate acreage of net new impervious surface to be added as a result of project?
[Project Engineer, District NPDES Coordinator]

2) 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)?
[Project Engineer, District Hydraulics]

3) 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) or soil properties (e.g., known highly erosive soils)?
[District Materials, District Landscape Architecture, District NPDES]

4) Will the discharge of storm water from the proposed facility or activity cause or contribute to a violation of water quality standards or water quality objectives (collectively WQSs)?
Consideration aid: Has the RWQCB indicated to the Department that its discharges in the receiving water body are causing or contributing to an exceedance of an applicable WQS?
Refer to Department Permit, Order No. 99-06, Section C-1.

5) 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 State:
a. Floating, suspended solids, or deposited macroscopic particulate matter, or foam;
b. Bottom deposits or aquatic growths;
c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
e. 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 Department Permit, Order No. 99-06, Section C-1.

6) 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)? *Note: Discuss with District NPDES whether local MS4 provisions about hydromodification will affect the project.*
[District NPDES Coordinator, Project Engineer, District Hydraulics]

7) Will the project involve a depressed section drained by a pump? If yes, are dry weather flows anticipated (e.g., drainage of the groundwater)?

8) Have selections been made for the Design Program Pollution (DPP) and Treatment BMPs? *Note: Final selection for the DPP and Treatment BMPs is often not selected by the Project Engineer until the PS&E phase.*
[Project Engineer, District NPDES]

9) 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.*
[Project Engineer, District Environmental]

10) Are 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?

11) Will the project require a 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.]
[District Environmental]

12) Has a Total Maximum Daily Loading (TMDL) been established for the receiving waters? Has the Department been named as a stakeholder and/or been assessed a Waste Load Allocation?

C. Temporary (Construction) Effects

Responses to these questions are typically needed concurrently with the project's PS&E, but should also be reviewed during the development of the PEAR (in the PID phase) and in 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?
   [Project Engineer]
2. What is the acreage of disturbed soil area not included above?
   [Project Engineer]
3. What is the acreage (plan view) of new cut and fill slopes greater than 2H:1V?.
   [Project Engineer]
4. What is the quantity of Imported Borrow?
   [Project Engineer]
5. Is storage or stockpiling of earthwork or construction materials near water bodies or ESAs under consideration?
   [Project Engineer, District Construction Stormwater Coordinator, District Environmental]
6. Is a sand blasting operation over streams or water bodies expected?
   [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 SER VOL. 1, Chapters 14, 15 and 17
   [Project Engineer, District NPDES Stormwater Coordinator, District Construction Stormwater Coordinator]
8. Are unpaved access roads expected to be used as part of the project?
   [Project Engineer, District NPDES Stormwater Coordinator, District Construction Stormwater Coordinator]

C. Temporary (Construction) Effects (cont)

1. 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?
   [Project Engineer, District NPDES Stormwater Coordinator, District Construction Stormwater Coordinator]
2. Has a Construction General Permit "Risk Assessment" been conducted, and are there implications from that rating? *Note: "Risk Assessment" was defined in the March 2008 draft General Construction Permit released by the SWRCB; only consider if directed by District NPDES or HQ Construction Stormwater unit.*
   [Project Engineer, District NPDES Stormwater Coordinator, District Construction Stormwater Coordinator]
3. Are there are any other construction activities anticipated not covered in the previous questions that could raise potential stormwater runoff issues?
   [Project Engineer, District NPDES Stormwater Coordinator]
4. 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?
   Consideration aid: 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 State Permit, Section C-2.
   [Project Engineer, District NPDES Stormwater Coordinator]
5. Is the receiving water on the CWA Section 303(d) list as impaired for sediment, turbidity and/or temperature?

REFERENCES

For the Department's 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.

GENERAL

Evaluation and Management of Highway Runoff Water Quality, Federal Highway Administration, June 1996

Water Quality Technical Analysis Notes, prepared for the Caltrans Division of New Technology, Materials and Research, October 1990 Note: while a generally useful reference, this document is dated and should be used for concept only.

SER Volume 1, Environmental Handbook, Volume I: Guidance for Compliance, available at the DEA Intranet website: http://www.dot.ca.gov/ser/vol1/sec1/ch1fedlaw/chap1.htm

REGULATORY REQUIREMENTS

SER Volume 1, Chapter 1: Federal Requirements, available at the Department's Division of Environmental Analysis Intranet website:
http://www.dot.ca.gov/ser/vol1/sec1/ch1fedlaw/chap1.htm

State Water Resources Control Board website: http://www.waterboards.ca.gov/

Regional Water Quality Control Boards (RWQCB) web-link:
http://www.waterboards.ca.gov/water_boards.shtml

State Water Resources Control Board – Construction General Permit website:
http://www.swrcb.ca.gov/water_issues/programs/stormwater/constpermits.shtml

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY (GENERAL PERMIT) WATER QUALITY ORDER 99-08-DWQ
http://www.swrcb.ca.gov/water_issues/programs/stormwater/docs/finalconstpermit.pdf

REGULATORY AGENCIES

State Water Resources Control Board (SWRCB) website:
http://www.waterboards.ca.gov/

Regional Water Quality Control Boards (RWQCB) weblink:
http://www.waterboards.ca.gov/water_boards.shtml

401 Certifications (on SWRCB website):
http://www.waterboards.ca.gov/water_issues/programs/cwa401/generalorders.shtml

Lake and streambed alterations, under CA. Department of Fish and Game:
http://www.dfg.ca.gov/habcon/1600/

DEPARTMENT STORMWATER PROGRAM COMMITMENTS

Department Permit, Order NO. 99 – 06 – DWQ:
http://www.swrcb.ca.gov/water_issues/programs/stormwater/caltrans.shtml
http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/caltrans/caltranspmt.pdf
Stormwater Management Plan, June 2007, available at the Department's Division of Environmental Analysis Intranet website:
http://www.dot.ca.gov/hq/env/stormwater/pdf/CTSW_SWMP_Appxs_FINAL_06-29-2007.pdf
Department Stormwater Program website: http://www.dot.ca.gov/hq/env/stormwater/

STORMWATER ASPECTS IN THE DESIGN PROCESS; TREATMENT BMPS; DESIGN POLLUTION PREVENTION BMPS

Project Planning and Design Guide, available at the Department's Design Intranet
http://www.dot.ca.gov/hq/oppd/stormwtr/ppdg.htm]

STORMWATER ASPECTS DURING CONSTRUCTION

Construction Site Best Management Practices (BMPs) Manual, available at the Department's Design Intranet website:
http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm

GENERAL HIGHWAY DESIGN

The Highway Design Manual is available at the Department's Design Intranet website: http://www.dot.ca.gov/hq/oppd/hdm/hdmtoc.htm

ESTIMATES OF POLLUTANT LOADING FROM RUNOFF

Evaluation and Management of Highway Runoff Water Quality, Federal Highway Administration, June 1996 See especially Section 3.2.2, The Simple Method

Water Quality Planning Tool; an on-line tool developed by CSUS for HQ Division of Environmental Analysis, available at website: http://www.stormwater.water-programs.com/wqpt.htm See notes on using this tool, shown on Appendix A.

Discharge Characterization Study Report, CTSW-RT-03-065.51.42, November 2003; available at the Department's Design Intranet website:
http://www.dot.ca.gov/hq/env/stormwater/special/newsetup/index.htm
http://www.dot.ca.gov/hq/env/stormwater/pdf/CTSW-RT-03-065.pdf

ESTIMATES OF POLLUTANT REMOVAL FROM RUNOFF BY TREATMENT BMPS

Project Planning and Design Guide, See especially Table 2-2; available at the Department's Design Intranet website:
http://www.dot.ca.gov/hq/oppd/stormwtr/ppdg.htm

BMP Retrofit Pilot Program - Final Report, REPORT ID CTSW - RT - 01 – 050, January 2004; available at the Department's Design Intranet website:
http://www.dot.ca.gov/hq/env/stormwater/
http://www.dot.ca.gov/hq/oppd/stormwtr/Studies/BMP-Retro-fit-Report.pdf

Appendices:
http://www.dot.ca.gov/hq/env/stormwater/special/newsetup/_pdfs/new_technology/index.htm