Design Stormwater Frequently Ask Questions (FAQs)

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I1. What is the amount of net new impervious (NNI) area within a Threshold Drainage Area that triggers a RSA?

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A. NPDES Permits

A1. What's the difference between the Caltrans NPDES MS4 Permit and the NPDES Construction General Permit (CGP)? Does my project need to comply with both?

Answer: All Caltrans projects are subject to the Caltrans NPDES MS4 Permit. Only projects disturbing 1 or more acres of soil during construction are subject to the CGP (i.e., SWPPP projects). For details refer to Section 1.4 of the PPDG:

A2. What is the difference between the California CGP and the U.S. EPA CGP?

Answer: The Federal Clean Water Act prohibits certain discharges of storm water containing pollutants except in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The CGP is a type of NPDES Permit that regulates stormwater discharges from construction sites because of its potential to mobilize pollutants and discharge into waterbodies or watersheds. U.S. EPA delegated authority to the California State Water Resources Control Board (SWRCB) to issue NPDES permits, however this only applies where the State has jurisdiction. The US EPA CGP applies in Tribal Lands and Lands of Exclusive Federal Jurisdiction (LEFJ) and the Tahoe basin falls under the Lake Tahoe CGP.

A3. What is the definition of Maximum Extent Practicable (MEP)?

Answer: See Appendix G of PPDG, "The MEP analysis is the process of evaluating the selected BMPs based on legal and institutional constraints, technical feasibility, relative effectiveness, and cost/benefit ratio."

A4. Highway facilities are linear in nature, why don't they fall under the SWRCB CGP's Linear Underground and Overhead Project (LUP) category?

Answer: No. Per the CGP, Linear Underground and Overhead Projects (LUPs) subject to the CGP include, "conveyance facilities, culverts, pipelines, or other linear corridors for: (a) The transportation of any gaseous, liquid, liquescent, and slurry material; (b) Cable line or wire for the transmission of Electrical energy or Communications, including internet, telephone, telegraph, radio, or television messages; (c) Ancillary facilities and substructures…that primarily function as support for LUP construction activities." The SWRCB has rejected previous attempts to include our linear transportation facilities (highways, railways, etc.) as LUP projects. The exception to this being the Middle Mile Broadband Initiative to install open access high-capacity fiber optic lines within State right-of-way.

B. Specifications/Bid Items

B1. How should the new storm event bid items from the 2025 Standards be estimated?

Answer: Changes to the 2025 Standards with respect to Section 13 bid items include:

a) New bid items for SWPPP projects in section 13-3, and optional for WPCP projects in SSP 13-1:
   i. 130312, Pre-Storm Event Inspection Report

ii. 130322, During- and Post-Storm Event Inspection Report (Includes Sampling)

b) Deleted bid item
   i. 130321, Stormwater Sampling and Analysis Day (replaced by new bid item 130322)

Both new bid items are non-adjustable, meaning the price of each inspection remains the same despite if the quantity drops below 75% or exceeds 125%. (Normal/Adjustable bid items can be renegotiated if the quality does not fall between 75% and 125%.) These bid items were created to put the burden of preparing a best guess as to how many inspections will be required throughout the life of the project on Caltrans. This allows for fair bidding expectations.

We are hoping to update the PPDG soon to add these new bid items and provide detailed cost estimating guidance, in the meantime, they can be estimated as follows:

a) 130312, Pre-Storm Event Inspection Report: follow PPDG estimating recommendations for the *Rain Event Action Plan (REAP).* Set aside $1,000 for each *pre-storm event inspection report* that is anticipated to be prepared by the contractor. Estimate one *pre-storm event inspection* for every forecasted storm event if the National Weather Service predicts a storm event with at least 50 percent probability of precipitation in the project area during the planned construction period. Use the mean number of days reported for precipitation producing greater than or equal to 0.1 inches for the duration of the project. We acknowledge that 0.1 inches is more stringent than the storm event definition from Section 13-1.01B, but it is currently the best tool currently available to us. It is appropriate to have more *pre-storm event inspection reports* anticipated compared to *during-and post-storm event inspection reports* since not all pre-storm event inspections will produce the quantity of precipitation to qualify for a *during- and post-storm event inspection report*. Use professional judgement to adjust the quantity of inspection reports as needed.

b) 130322, During- and Post-Storm Event Inspection Report: follow PPDG estimating recommendations for the *Stormwater Sampling and Analysis Day.* Set aside $1,000 for each *during- and post-storm event inspection report* that is anticipated to be prepared by the contractor. Set aside additional funding, per the PPDG's current *Stormwater Sampling and Analysis Day,* for Risk Level 2 or 3 projects and any other project with additional sampling needs (i.e., projects located within TMDLs, ASBS areas, basin plans with more stringent water quality objectives, etc.). At a minimum, one (1) sample must be collected at each discharge location per day. Use the Stormwater Monitoring (SWM) equation 4 to estimate sampling related costs. Use professional judgement to adjust the quantity of inspection reports as needed.

Appendix F of the PPDG provides cost estimating methods for standard bid items as of the 2023 Standards. Always refer to the current Standards for the correct bid item name and numbers.

B2. The Bid Item names and numbers in the PPDG don't match the current Standards, which do I follow?

Answer: Appendix F of the PPDG provides cost estimating methods for standard bid items as of the 2023 Standards. Always refer to the current Standards for the correct bid item name and numbers.

C. Dewatering

C1. Can you give me direction on dewatering?

Answer: One important element of project Construction BMP strategy is dewatering. Dewatering on a project can range from incidental rainfall collected in trenches to dewatering required by excavations below the local water table. Depending on the volume of water and project location, dewatering may require a separate permit from the RWQCB and consultation with the Department of Fish and Game. Generally, if the volume of water to be removed can be used on the site for dust control or spread on the ground within the right of way to infiltrate and evaporate, then no separate dewatering permit will be required (although special provisions of the 401 certifications may apply). If the water volume is such that the water cannot all be disposed of as above, then a separate dewatering permit may be required. In all cases where dewatering is anticipated, Section 6 of the SWDR should outline the dewatering strategy as part of the Construction BMP strategy. Contact your local Design Stormwater staff for more information about specific projects and locations.

Here's a summary of dewatering specification sections to consider depending on project details, each specification section is associated with separate bid items. Reach out to OHSD for assistance to determine which dewatering specification and bid item are applicable to your project.

1. Section 13-4, Job Site Management: Standard specification section (editable under SSP 13-4) is typically used for flows under 2 cfs and may or may not require a separate dewatering permit. This specification details dewatering plan submittal requirements and construction management requirements.
2. Section 13-12, Temporary Creek Diversion System: Editable SSP covers temporary stream diversion flows, minor seepage, and associated materials to convey clean water through the construction area, typically for flows over 2 cfs or environmentally sensitive locations.
3. Section 71-3.01C(1), Dewatering during Culvert Rehabilitation: Editable SSP for controlling or diverting groundwater or stream flow during culvert rehabilitation work, typically to be used for flows under 2 cfs or not located in environmentally sensitive locations.
4. Section 19-3 Structural Excavation and Backfill: Standard specification requirements for cofferdams. This specification section is not owned by OHSD.

D. Excluded Impervious Area (EIA)

D1. Table 4-1 in the PPDG lists “new pavement underneath existing guard rails” as excluded impervious area, what about pavement under new guard rails?

Answer: Per PPDG table 4-1, pavement under new guard rails would also be considered excluded impervious area as “impervious portions of the DPP and Treatment BMP footprint.” Pavement under Guard Rails is a DPP BMP for erosion and is also there for vegetation control. Previously, The North Coast RWQCB had asked for CT to pave under guard rails as a means of controlling pesticide/herbicide use and erosion. Therefore, all pavements under guard rails is considered EIA.

D2. How big of a “dig out” can be considered Excluded Impervious Area (EIA)?

Answer: This will have to be decided on a case-by-case basis. A pothole repair consisting of a basketball sized digout would clearly be considered EIA, while a 100 ft portion of a full-lane replacement would not. Sizes in between are up for interpretation. A good "rule of thumb" would be if the can dig it out and fully replace it withing a single workday then you could say it was a digout. If not, the you can't. Discuss options with your Design Stormwater Coordinator and the District NPDES Coordinator, and as always document decisions in the SWDR.

D3. Area all bike lanes considered EIA?

Answer: Yes they are.

E. WPCP/SWPPPs

E1. How to address multiple non-contiguous sites with multiple stormwater construction documents (i.e., WPCP and SWPPP, 2 SWPPPs, 2 WPCPs, etc.) that are under the same EA?

Answer: This will have to be handled on a case-by-case basis. Per recent clarifications provided by the SWRCB regarding the 2022 CGP, sites separated by ¼ mile (non-contiguous) are considered separate projects, as far as the CGP is concerned, requiring separate CGP coverage (e.g., construction site with staging area over ¼ mile away may both each require a WDID number and SWPPP if each non-contiguous site is 1 acre or more of DSA. The NPDES Coordinator may also need to have a discussion with the RWQCB for each project.

E2. Is bioassessment monitoring still required for Risk Level 3 SWPPP projects?

Answer: No, it was dropped from the 2022 CGP by the SWRCB.

F. Treatment BMPs

F1. Can you provide more information on using the T-1 Part 1 Matrices for evaluating the appropriate TBMP for a site?

Answer: The T-1 Part 1 Matrices offers a way to consider Treatment BMPs using the Targeted Design Constituent (TDC) approach. The TDC method used to be the primary way to prioritize TBMPs on projects. However, the T-1 Part 1 checklist was updated based on permit requirements to prioritize infiltration. The TDC approach may still be useful to those projects finding it difficult to select the appropriate treatment BMPs based on the other sections of the T-1 Part 1 checklist, however, most projects will not need to consider the TDC approach or use the matrices.

F2. The DPPIA is not listed in the T1-Part 1 Matrices. Where in the matrices does it fall?

Answer: DPPIA falls under Infiltration devices category. A footnote will be added to list with next PPDG update for clarification.

F3. Why are TBMP priorities different in North Coast (NC)-RWQCB?

Answer: The Caltrans NPDES Permit has discharge requirement that apply across the State. The 9 regional boards also each impose additional requirements for their respective areas. For the North Coast RWQCB, their additional requirement are primarily sediment and temperature restrictions among a few others targeted pollutants based on their specific basin plan requirements. The North Coast RWQCB is also prone to adding treatment BMP requirements to 401 certification conditions in addition to the Caltrans NPDES Permit requirements. It is vitally important that you are in regular contact with the NPDES Coordinator when working on a project in this jurisdiction.

F1. What TBMP attachments are needed for the CGP application/Notice of Intent (NOI)?

Answer: Per Appendix E.8 of the PPDG, (1) Risk Level Calculations, (2) TMT Tab Spreadsheet, (3) Plan Sheets, and (4) SWDR Attachment for SMARTS INPUT Form.

F1. Are TBMP design guidance's available to share with external contractors?

Answer: Yes. If Consultants are providing A&E support, they must use the TBMP Design Guides during the design process. Most of our TBMP Design Guides are available to anyone on the internet: https://dot.ca.gov/programs/design/hydraulics-stormwater/treatment-bmp-design-guidance.

G. Trash Treatment BMPs

G1. My project is in an area where there is an STGA. Does this mean that I will have to consider Full Trash Capture treatment?

Answer: It depends. Projects must consider Full Trash Capture if it meets or exceeds the 10,000 ft^2 NIS trigger requiring TBMP consideration. STGA's are an additional treatment requirement that must be looked at for a project that is required to consider treatment and does not trigger treatment consideration on its own. The reason for this is that every minor project, such as an overlay or a ramp meter project, would then have to consider installing a TBMP that could exceed the original cost of the project. However, keep in mind that the Caltrans NPDES Permit incorporates a compliance action plan timeline requiring 100% of STGAs to be treated for full trash capture by December 2030, so projects located in STGAs should consider trash TBMPs when required to by the permit. Some Districts have started doing STGA trash projects to address this.

H. Stormwater Data Reports (SWDRs)

H1. What are the minimum required attachments to SWDRs? The PPDG is not consistent with the PPDG Online training with respect to vicinity map and EDF.

Answer: The PPDG will be updated - Online training is correct. All SWDRs will require, at a minimum, the EDF and a Vicinity Map. Refer to PPDG for other potential SWDR attachments required based on project specifics (e.g., risk level determination, RUSLE2 output, TBMP calculations, etc.).

H2. Can we amend signed and stamped SWDRs?

Answer: No. Amendments are not allowed to the final PS&E SWDR that has been stamped and signed. The purpose of the stamped and signed SWDR is to provide a snapshot in time at the end of the PS&E. Any changes to TBMPs, or treatment strategy, after PS&E will be handled during the Construction phase and documented through the Change Order Process, and communicated back to the District Design NPDES Coordinator and Project Engineer.

H3. Should the SWDR including all the attachments be uploaded to SMARTS?

Answer: No. Under no circumstance should the entire SWDR including TBMP calculations be uploaded to the public. If the Regional Board requests additional information or a copy of the SWDR, it may be shared via email, not for public display. The SWDR is an internal design decision document.

H4. Who can the SWDR be shared with?

Answer: The SWDR is an internal design decision document so it cannot be shared with any personnel outside of Caltrans. If it is specifically requested by the RWQCB then it can be

provided to them via email, not for public display in SMARTS. It is not to be shared with the contractor as it contains government cost estimate details.

I. Hydromodification/Rapid Stability Assessment (RSA)

I1. What is the amount of net new impervious (NNI) area within a Threshold Drainage Area that triggers a RSA?

Answer: The PPDG language is not as clear as the hydromodification guide, follow hydromodification guidelines when determining if an RSA is required. The Caltrans Permit mandates that a RSA be conducted during planning and design for all projects that add 10,000 ft^2 or more of net new impervious (NNI), and any part of the NNI falls within the Threshold Drainage Area of a stream crossing. The language in the PPDG will be revised in the next update.