

***Appendix XXI. Inter-Departmental Permanent BMP Review,
Approval, and Verification***

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1.0 Purpose

The purpose of this Standard Operating Procedure (SOP) is to describe the roles of different groups within the City of San Diego (City) in implementing the City’s program to require proper design, installation, and maintenance of storm water permanent structural best management practices (BMPs).

2.0 Overview

As required by the Regional Water Quality Control Board, San Diego Region (RWQCB) Order No. R9-2013-0001 (Municipal Permit or Permit), the City must ensure that all Priority Development Projects (PDPs) implement permanent structural BMPs to provide treatment of storm water runoff. The City’s Storm Water Standards Manual sets forth the guidelines by which the City determines whether a project is a PDP and what minimum standards the structural BMPs proposed for a PDP must meet. To be in compliance with the Municipal Permit, the City performs the following main tasks related to these structural BMPs:

1. Identifying which new development and redevelopment projects are PDPs
2. Requiring that the design of each PDP incorporates adequate structural BMPs
3. Verifying that the approved BMPs get properly installed/constructed

Furthermore, after construction of these projects, the Transportation & Storm Water Department, Storm Water Division must verify that all structural BMPs are being properly maintained for the lives of the projects. Since these activities involve multiple departments, branches, divisions, and sections (herein referred to collectively as “groups”), coordination between these different groups is critical. This SOP describes the procedures used by the City to ensure that the activities described above are all performed in accordance with the Municipal Permit.

Furthermore, this SOP identifies what information and documentation must be passed from one group to another to allow each group to conduct its activities properly.

3.0 Procedures for Private Projects

3.1 Private Project Review and Approval

3.1.1 Review and Approval Procedures

Whenever a private party applies for a permit from the Development Services Department (DSD), civil engineering reviewers within DSD are responsible for determining whether the project is a PDP, a standard development project (SDP), or Exempt as described by the guidance in the Storm Water Standards Manual. The civil engineering reviewer makes this determination

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when reviewing the Storm Water Requirements Applicability Checklist (Form DS-560) submitted by the applicant. If the project is a PDP, the civil engineering reviewer adds a “Storm Water Perm BMP Priority” tag to the project record in the Project Tracking System (PTS) database, indicating that the project is a PDP. The engineer of work must then submit a Storm Water Quality Management Plan¹ (SWQMP) and development plans for review. DSD civil engineering reviewers review the SWQMP and development plans to determine if the proposed design meets all of the BMP requirements for PDPs specified in the Storm Water Standards Manual. The civil engineering reviewer will require the engineer of work to make any necessary revisions to the SWQMP and plans until all BMP requirements are addressed.

Once the reviewer has deemed the proposed BMP design acceptable, he or she adds at least three holds to the project record in PTS. One hold requires that a Storm Water Management and Discharge Control Maintenance Agreement (Maintenance Agreement) gets approved and gets recorded by the Office of the County Recorder. The second hold requires that the engineer of work submits a signed Permanent BMP Construction Self-Certification Form (Form DS-563) to the City after construction of all approved structural BMPs. The final hold requires a City inspector or engineer to inspect the project to verify that the structural BMPs have been installed per the approved plans. This inspection will be performed by a different City group depending on the project’s approval type and the proposed types of BMPs. The civil engineering reviewer makes the determination of who will perform the inspection and creates an inspection hold specific to that group. In select cases, two separate groups will inspect the site to verify installation of BMPs. In these cases, the civil engineering reviewer will create two separate inspection holds. PTS will prevent staff from closing out the project until all of these holds have been cleared.

The engineer of work is required to create and sign a Maintenance Agreement using form DS-3247 available on DSD’s website. Upon receipt of the signed Maintenance Agreement, the civil engineering reviewer performs a consistency check to verify that the structural BMP information on the Maintenance Agreement and development plans are both consistent with the design in the SWQMP. If all three documents are in agreement, the civil engineering reviewer approves the submittal. Upon approval of the submittal, the civil engineering reviewer routes the

¹ Prior to implementation of the requirements of the updated Storm Water Standards Manual in December 2015, projects are subject to the requirements of the previous version of the Manual, which requires a Water Quality Technical Report rather than a SWQMP. For the purposes of this document, SWQMP refers to either a Storm Water Quality Management Plan or a Water Quality Technical Report, whichever is appropriate for a given project.

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Maintenance Agreement to the Project Submittal and Management Division who may then issue permits to the project.

3.1.2 Key Documentation

After a project has been approved, it is important that documents containing information on the structural BMPs are sent to the City groups that require them for inspection activities during and after construction. The “Storm Water Document Routing” flow chart included as Attachment A describes how copies of these documents are passed between different groups following permit issuance.

3.2 Verification of Structural BMP Construction/Installation at Private Projects

Before a private PDP can be closed out, the City will verify that the approved structural BMPs have been constructed or installed in accordance with the approved plans. The following three groups are responsible for these verification activities:

- Building inspectors from DSD's Division of Building/Construction and Safety
- Landscape inspectors from DSD's Land Development Review Division
- Resident engineers from the Public Works Department (PWD) Field Engineering Division

3.2.1 Assignment of inspection group(s)

If the private PDP does not have a grading, right of way, or geologic reconnaissance permit, the civil engineering reviewer will assign the BMP verification inspection hold to one or both of the following groups:

- Building inspectors from DSD's Division of Building/Construction and Safety
- Landscape inspectors from DSD's Land Development Review Division

The civil engineering reviewer assigns the inspection of structural BMPs connected to the building structure to the building inspector and the inspection of any other structural BMPs to the landscape inspector.

If the private PDP has a grading, right of way, or geologic reconnaissance permit, the civil engineering reviewer will assign the BMP verification inspection hold to one or both of the following groups:

- Resident engineers from PWD's Field Engineering Division
- Building inspectors from DSD's Division of Building/Construction and Safety

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The civil engineering reviewer assigns the inspection of structural BMPs connected to the building structure to the building inspector and the inspection of any other structural BMPs to the resident engineer.

3.2.2 Structural BMP Verification Activities

The assigned inspection group or groups are responsible for two main activities related to the verification of structural BMP construction:

1. Collection of the Permanent BMP Construction Self-Certification Form (Form DS-563)
2. Performing a site inspection to verify BMP construction

3.2.2.1 Collection of DS-563

The contractor or engineer of work is responsible for contacting the appropriate inspector once the construction of the structural BMPs is complete. The inspector collects the signed DS-563 from the engineer of work and clears the associated hold in PTS. If there are two inspection groups assigned to the project, they will coordinate to determine which inspector will collect the DS-563. Typically, the group that will be performing their BMP verification inspection last will collect the DS-563.

3.2.2.2 BMP Verification Inspection

After being notified of BMP construction, each identified inspection group visits the site and visually inspects the structural BMPs assigned to them. The inspector reviews the development plans and ensures that the structural BMPs have been installed or constructed in the locations shown on the plans and that they have been constructed in accordance with the configurations and dimensions shown in plan details.

If the structural BMPs have all been constructed in accordance with the development plans, the inspector clears the inspection hold in PTS. If any BMPs have not been built per the approved plans, the inspector notifies the contractor. The contractor must then correct the issue and request an additional inspection once the structural BMP construction has been corrected.

3.2.3 Key Documentation

3.2.3.1 Prior to BMP Verification

In order to properly verify BMP installation, the City must ensure that each inspector has access to the most recent version of the approved development plans. If the building inspector or landscape inspector is performing the BMP verification inspection, the inspector views the copy of the plans retained on site by the contractor. Prior to inspection, the inspector must check PTS to see if there have been any approved construction changes and verify that the plan set retained on site is the latest approved version. If the BMP verification inspection will be performed by a resident engineer, the civil engineering reviewer routes the development plans to DSD's Project

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Submittal and Management Division, who then sends a print copy of the plans to PWD-FED. If the civil engineering reviewer later approves any construction changes, the newly approved plans will also be routed through the same pathway to PWD-FED.

3.2.3.2 After BMP Verification

After verifying installation of structural BMPs, the inspection group that collected the signed DS-563 emails a PDF copy of the form to tcbmp@sandiego.gov to notify the Storm Water Division that construction of structural BMPs is complete.

4.0 Procedures for Capital Improvement Program and Other Public Projects

4.1 CIP and Other Public Project Review and Approval

The Engineering and Capital Projects Branch of PWD is the primary group responsible for reviewing and approving CIP project designs. The Project Implementation Division reviews the initial project information to ensure that the project is properly identified a SDP, a PDP, or Exempt as described by the guidance in the Storm Water Standards Manual. PWD assigns each project to a Senior Engineer from either the Right-of-Way Design Division or the Architectural Engineering & Parks Division.

If the project is a PDP, the Senior Engineer is responsible for ensuring that a SWQMP is developed and that it meets all of the BMP requirements for PDPs specified in the Storm Water Standards Manual. At his or her discretion, the Senior Engineer may also request a project consultation review in which engineering staff from the Storm Water Division review and comment on the SWQMP and development plans. The Senior Engineer also routes the plans to PWD's Field Engineering Division for a constructability review. Since structural BMPs for CIP and other public projects must be maintained by the City for the life of the project, the Senior Engineer sends copies of the plans to the Storm Water Division's Operation and Maintenance Engineering Section and to the asset owner for a maintainability review. Finally, at the 100% design level, the project goes out for a city-wide plan check. For PWD-managed CIP projects, before construction begins on a project, the Standards and Quality Control Section of PWD's Project Implementation Division verifies that the structural BMP information on the development plans and specifications is consistent with the approved SWQMP.

Some City departments other than PWD, such as the Environmental Services Department, the Public Utilities Department, and T&SW are responsible for reviewing their own department's improvement projects. Typically, these projects are road improvements or renovations of existing facilities. In such cases, the department reviews the project to ensure that it

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implements all site design, source control, structural pollutant control, and hydromodification management BMP requirements specified in the Storm Water Standards Manual.

4.2 Verification of Structural BMP Construction/Installation at CIP and Other Public Projects

Resident engineers from PWD's Field Engineering Division are responsible for verifying proper construction or installation of permanent structural BMPs at all CIP projects.

4.2.1 Structural BMP Verification Activities

Resident engineers are responsible for two main activities related to the verification of structural BMP construction:

1. Collection of the Permanent BMP Construction Self-Certification statement
2. Inspecting the BMP(s) to verify construction

4.2.1.1 Collection of Permanent BMP Construction Self-Certification Statement

The contractor or engineer of work is responsible for contacting the resident engineer once the construction of the structural BMPs is complete. While form DS-563 is not used for Capital Improvement Program (CIP) projects, the same certification language from DS-563 is included on a plan sheet for all CIP PDPs. The resident engineer ensures that the engineer of work signs this statement on the plan sheet once all structural BMPs have been constructed.

4.2.1.2 BMP Verification Inspection

The resident engineer visits a site throughout construction and is typically able to observe construction of the structural BMPs. Upon completion of the structural BMPs, the resident engineer inspects all the BMPs to ensure that they have been installed or constructed in the locations shown on the plans and that they have been constructed in accordance with the configurations and dimensions shown in plan details.

If any BMPs have not been built per the approved plans, the inspector notifies the contractor and the Senior Engineer. The contractor must then correct the issue and request an additional inspection once the structural BMP construction has been corrected.

4.2.2 Key Documentation

4.2.2.1 Prior to BMP Verification

In order to properly verify BMP installation, PWD must ensure that resident engineers have access to the most recent version of the approved development plans. The Senior Engineer sends the approved plans to the Field Engineering Division. If there are any construction changes, the Senior Engineer coordinates with the resident engineer to ensure that he or she has the latest approved plan sheets.

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4.2.2.2 After BMP Verification

After the resident engineer has verified BMP installation and collected the Permanent BMP Construction Self-Certification Statement, as-built plans can be approved. The resident engineer then sends the as-built plans, which include the self-certification statement, to the Storm Water Division Operation and Maintenance Engineering Section and to the Inspections Section. The resident engineer also sends a copy of the approved SWQMP to the Storm Water Division Inspection Section. Documents can be emailed to the Inspection Section at tcbmp@sandiego.gov or sent via interoffice mail to “TCBMP Maintenance Verification Program” at MS 1900.



Storm Water Document Routing

