# STORMWATER CONTROL PLAN INSTRUCTIONS

**How to complete and submit a Stormwater Control Plan for Parcel projects.**

## SCP SUBMITTAL REQUIREMENTS

Projects that disturb 5,000 square feet or more of ground surface are required to submit a Stormwater Control Plan (SCP) in compliance with the San Francisco Stormwater Management Ordinance and *San Francisco Stormwater Design Guidelines (Guidelines)*. The SCP submittal is separate from any documentation submitted to the Department of Building Inspection (DBI) for a Site or Building Permit. Please refer to the Typical SCP Project Review Process Diagram on page 2.

- The SCP review process consists of two review stages: **Preliminary SCP** and **Final SCP**.
- Prior to submittal of a Preliminary SCP, project teams are encouraged to discuss the proposed stormwater management approach with project review staff at a **pre-application meeting**.
- DBI will not issue a Site or Building Permit until the SFPUC approves the **Preliminary SCP.**
- DBI will not issue a Certificate of Final Completion (CFC) until the SFPUC approves the **Final SCP** and the property owner signs, submits and records the **Maintenance Agreement**.

A complete **Stormwater Control Plan** should include the following per the SCP **Table of Contents**:

Section 1: Project Information Form
Section 2: Project Narrative
Section 3: Calculation Summary and Table
Section 4: Stormwater Management Plan(s)
Section 5: Source Control
Section 6: BMP Maintenance Schedule
Section 7: BMP Inspection Checklist
Appendix A: Calculation Spreadsheets or Modeling Output
Appendix B: Supporting Documentation
Appendix C: Construction Document Drawings (Excerpts related to stormwater management)
Appendix D: Draft Maintenance Agreement Template

## SCP SUBMITTAL TIMELINE

The SFPUC staff review SCPs based on the **Typical Project Review Process Diagram** (page 2). **If your project elects to go straight to a DBI Building Permit, coordinate with the SFPUC to determine the review and approval process.**

**Pre-Application Meeting:** Coordinate with SFPUC to schedule a meeting early during the planning and team building process. Early coordination will minimize design issues when Site Permits are filed.

**Preliminary SCP:** Submit prior to or concurrent with a DBI Site or Building Permit submittal.

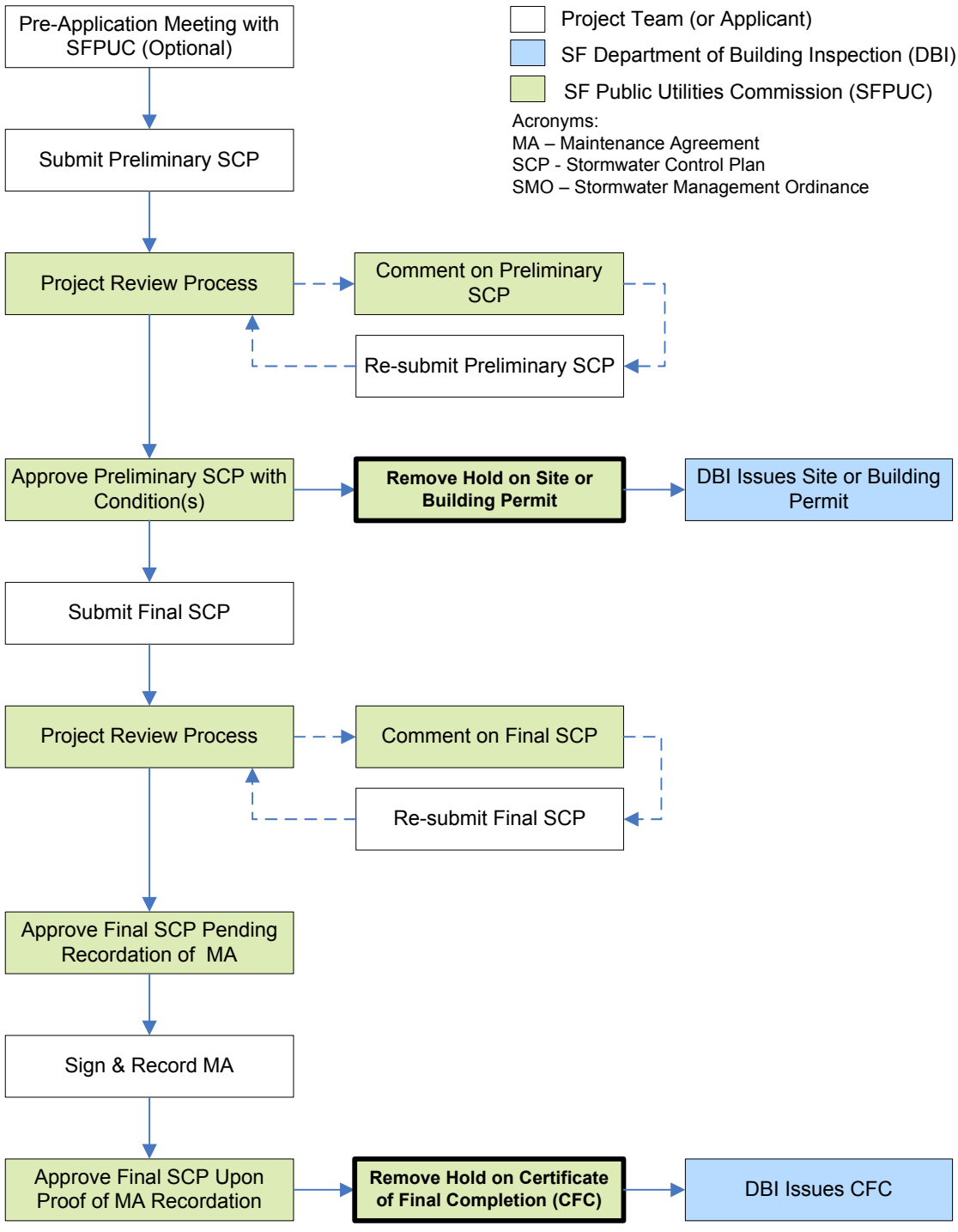
- Attached plans should reflect design level typical of a Site Permit (e.g. 100% DD).
- Project schedules should reflect possible need for more than one Preliminary SCP submittal prior to approval.

**Final SCP:** Submit initial SCP concurrent with the DBI Addenda process and proir to foundation or vertical construction.

- Attached plans should reflect design level typical of a building permit (e.g. 100% CDs).
- Project schedules should reflect possible need for more than one Final SCP submittal prior to approval.

# STORMWATER CONTROL PLAN INSTRUCTIONS

## TYPICAL SCP PROJECT REVIEW PROCESS



# STORMWATER CONTROL PLAN INSTRUCTIONS

## SCP INSTRUCTIONS

**A complete SCP must include the following sections in sequential order. Refer to www.sfwater.org/sdg for all supporting materials (active hyperlinks to each document are also included throughout this section).**

## SECTION 1: PROJECT INFORMATION FORM

Include the completed Project Information Form at the front of the Stormwater Control Plan (SCP).

- The SCP Table of Contents must be accurately completed and reflect the contents of the SCP.
- The completed Project Information Form must be submitted with both Preliminary and Final SCPs.
- **Preliminary SCP submittal**: The Statement of Certification must include the preparer's name and license number or unsigned stamp.
- **Final SCP submittal**: The Statement of Certification must include the preparer's name and license number with a signed and dated stamp.
- Justify all items that have been omitted from the SCP submittal in the Submittal Checklist.

## SECTION 2: PROJECT NARRATIVE

Include a concise narrative describing the proposed project. At a minimum, the Project Narrative must:

- Summarize the EXISTING conditions and PROPOSED development project.
- Summarize the opportunities and constraints for stormwater management, including any site conditions checked in the Project Description of the Project Information Form.
- Discuss the proposed stormwater management approach for achieving the required performance measure(s). Include a summary of the process used to select each proposed stormwater control Best Management Practice (BMP).
- If the project will be phased, discuss the plan for phasing and how stormwater compliance will be met at each phase of the project.

## SECTION 3: CALCULATION SUMMARY AND TABLE

**Provide a written Calculation Summary.** This narrative should clearly describe the stormwater control BMP performance calculation methods and assumptions.

- Provide a written summary of the selected stormwater modeling calculation method(s), assumed design criteria, and data sources.
- For rainwater harvesting and storage proposals, summarize the estimated water budget (i.e. on-site sources verses on-site demands), the cistern operation, and the maximum draw down period. Describe how rainwater harvesting approach is incorporated into the overall development phasing plan.

*(cont. on the following page)*

# STORMWATER CONTROL PLAN INSTRUCTIONS

## SECTION 3: CALCULATION SUMMARY AND TABLE (CONTINUED)

**Provide a Stormwater Control Performance Summary Table.** This table should clearly show that the proposed overall design meets the performance requirements of the *Guidelines*. The table should summarize the stormwater runoff calculation results overall and for each individual BMP, such as:

- **Combined Sewer Areas:**
  - EXISTING peak flow rate (cfs) and total volume (cf)
  - REQUIRED peak flow rate and total volume reduction to meet the performance requirement
  - ACHIEVED peak flow rate and volume for the entire site ***and*** for each individual drainage area
- **Separate Sewer Areas:**
  - REQUIRED total treatment volume (cf) to meet the performance requirement
  - ACHIEVED treatment volume for the site as a whole ***and*** for each individual drainage area

## SECTION 4: STORMWATER MANAGEMENT PLAN (SMP)

**NOTE: A Stormwater Management Plan (SMP) must be a black and white document, as it will be recorded with the Maintenance Agreement.**

Include a SMP as a new drawing using an 11x17 format that coordinates with the attached Construction Document drawings.

- Include title block with project name, address, owner's name and contact information, designer's name and contact, project phase (e.g. 100% DD, 100% CD, etc.), north arrow, and scale.
- Show as a compiled "birds-eye" plan including adjacent sidewalks (e.g. if there is a green roof on the 5th story and a biofiltration planter on the 2nd story, the SMP should show both).
- Show and label each stormwater control BMP with a **distinct hatching type** and **ID number** (e.g. for swales, SW-01, SW-02, etc.). Use the same BMP ID number in the Maintenance Schedule and Inspection Checklist.
- Clearly label and **delineate all drainage management area boundaries** (e.g. DMA-01, etc.) for the entire site. A DMA should show the contributing area for each BMP, including the BMP area itself (if above ground), and label the size of each drainage area (square feet or acres).
- If multiple sewer connections are proposed and multiple CSS BMP Sizing Calculators are used, clearly label and **delineate each sub-watershed area** (eg. SubW-01, etc.).
- Clearly show the overflow routing to the sewer system and emergency relief routing.
- Clearly show and label the general piping layout including each downspout, connections to and from BMPs including overflow relief piping, underdrains, and connections to the combined system CSS with flow direction arrows. Coordinate with the Civil and Plumbing CD's.
- Clearly show the adjacent roads, properties and any contributing overland flow from outside the project area.
- Delineate and label all pervious and impervious surface types for the proposed development conditions.
- Provide an **Area Summary Table** that is broken up into surface areas: Sub Watersheds, DMA's, conventional impervious, conventional pervious and BMP areas. Present the data so that all areas can be summed and easily cross referenced with the Calculation Spreadsheet(s).

*(cont. on the following page)*

# STORMWATER CONTROL PLAN INSTRUCTIONS

## SECTION 4: SMP (CONTINUED)

- Provide a **typical detail** or **section** for each BMP type (Note: If rainwater harvesting is used, provide cistern section with all inlets, outlets, and associated componenets).
- Where relevant, show and label all stormwater control BMP setbacks as described in the *Guidelines*, BMP Fact Sheets, "Introduction" (especially when infiltration-based BMPs are proposed).
- **For Final SCP Submittal:** Include the electronic stamp of an engineer or landscape architect licensed in the State of California.

## SECTION 5: SOURCE CONTROL

Complete the Source Control Template provided in the Technical Report Templates or provide equivalent.

- List each potential source of polluted runoff and the associated pollutants of concern, and describe proposed source control measures and appropriate BMPs.
- Refer to the *Guidelines,* BMP Fact Sheets for resources on required source control measures.

## SECTION 6: BMP MAINTENANCE SCHEDULE

Complete the BMP Maintenance Schedule provided in the Technical Report Templates or provide a custom BMP Maintenance Schedule for enhanced maintenance requirements (e.g. vegetated roof or a proprietary BMP system).

- Refer to the Typical Maintenance Activities in the *Guidelines,* BMP Fact Sheets for recommended activities and frequency.
- Edit the recommended activities provided in the *Guidelines* to reflect the specific proposed design.
- The Owner is responsible for securing maintenance funding for all BMPs constructed in compliance with the *Guidelines*. However, a description of the funding mechanism and annual maintenance cost is not required.

**NOTE: The Final BMP Maintenance Schedule(s) will be recorded with the Maintenance Agreement. Refer to the Maintenance Agreement Recordation Process memo.**

## SECTION 7: BMP INSPECTION CHECKLIST

Complete the BMP Inspection Checklist Template provided in the Technical Report Templates or provide a custom Inspection Checklist for enhanced inspection requirements (e.g. vegetated roof or a proprietary BMP system).

- Refer to the Typical Inspection Activities in the *Guidelines,* BMP Fact Sheets for recommended activities and frequency.
- Edit the recommended activities provided in the *Guidelines* to reflect the specific proposed design.
- This Checklist will be used by the Owner or the Owner's Representative for the annual self-certification inspection. For more information refer to the Inspection and Enforcement chapter of the *Guidelines.*

**NOTE: The Final BMP Inspection Checklist(s) will be recorded with the Maintenance Agreement. Refer to the Maintenance Agreement Recordation Process memo.**

# STORMWATER CONTROL PLAN INSTRUCTIONS

## APPENDIX A: CALCULATION SPREADSHEETS OR MODELING OUTPUT

Calculation spreadsheets or modeling output should demonstrate that the *Guidelines* performance measures have been met by providing:

- Relevant stormwater calculations per the Accepted Hydrologic Calculation Methods memo, including but not limited to:
  - The SFPUC BMP Sizing Calculator(s) for Combined Sewer Areas and/or Separate Sewer Areas
  - Hydrologic model with input and output (e.g. SWMM, Pondpack, etc.)
  - Hydraulic and/or Hydrology sizing spreadsheet(s)
  - Orifice sizing calculations
- Documentation of design criteria and assumptions
- Stormwater Control BMP Performance Table for each stormwater control BMP including: BMP type, BMP ID number, and contributing drainage management area (DMA's) (in square feet or acres)
- Water budget calculations (if applicable), including:
  - Non-Potable Demand Calculations, and
  - Rainwater Harvesting Calculations (**NOTE: If rainwater harvesting is proposed for irrigation, coordinate with the SFPUC staff prior to SCP submittal regarding allowed calculations.**)

## APPENDIX B: SUPPORTING DOCUMENTATION

As appropriate, include additional site-specific documentation to support the stormwater management design and assumptions. Only attach the pages relevant to compliance with the *Guidelines* and clearly identify relevant information for ease of review. **Please do not attach full specifications, geotechnical reports, or manuals**.

**Both Preliminary SCPs** and **Final SCPs** are required to include the following supporting documentation:

- Proposed BMP proprietary product information (e.g. cut sheets - one or two pages)
- Soils data, boring logs, soil type description, and/or groundwater elevation data
- If the proposed infiltration-based BMPs do not meet the setback requirements outlined in the *Guidelines*' **BMP Fact Sheets** (pages 4 & 5), **include signed letters from the geotechnical and/or structural engineer** stating that they have reviewed and approved the proposed design.

**Only Final SCPs** are required to include the following additional supporting documentation (If available, projects are also encouraged to include these in Preliminary SCPs):

- Percolation test pit logs or soils test results
- Project specifications excerpts. Include specific pages from the project specifications that relate to stormwater control BMP materials or components, including:
  - BMP materials, such as: aggregates, soils, green roof media, permeable paving, etc.
- BMP proprietary product sizing and/or specifications

# STORMWATER CONTROL PLAN INSTRUCTIONS

## APPENDIX C: CONSTRUCTION DOCUMENT DRAWING EXCERPTS

Attach Construction Document drawings that adequately depict the existing and proposed conditions and are **relevant** to compliance with the *Guidelines*. Please include the minimal number of sheets reproduced from the most recent set of construction drawings to clearly present the proposed stormwater management BMPs. All drawings should include a project title block with submittal description (e.g. 100% DD,100% CD, etc.). **NOTE: For FINAl SCP, provide a digital stamp on all plans; wet stamp or signature NOT required.**

Relevant plans may include, as needed:

- **Cover Sheet:** Include the design drawing set Cover Sheet for reference.
- **Existing Conditions Plan (or Site Survey):** A clearly labeled site and topographic survey.
- **Site Plan:** Proposed layout of overall project site.
- **Materials Plan(s):** Proposed location of materials related to stormwater control BMPs (e.g. permeable paving, landscaping, etc.).
- **Grading Plan(s):** (may be combined with Drainage Plan): Proposed grading with clearly labeled site contours, spot elevations, site slopes.
- **Sidewalk Improvement Plan(s):** As needed when stormwater BMPs are proposed in sidewalk ROW, per DPW permit requirements.
- **Drainage Plan(s)/ Utility Plan(s):** Proposed overall drainage system including connections to the combined or separate sewer system.
- **Landscape Plan(s):** Proposed BMP Planting Plan and BMP Plant Lists including species and quantities of all trees, plants and seed mixes.
- **Architectural Plan(s):** Include if these plans show elements related to stormwater control BMPs (e.g. green roof).
- **Plumbing Plan(s):** Proposed plumbing plans showing rainwater harvesting system, interior elevation schematic of RWH system, BMP piping, cisterns, or other BMP appurtenances.
- **Detail Sheet(s):** Include all sheets that contain details related to the proposed stormwater control BMP(s) such as:
  - Stormwater control BMP facilities plans and sections
  - Green roofs or stormwater planters
  - Planting details specific to stormwater control BMPs
  - Rainwater harvesting system, tank section, and components
  - Schematic line diagrams showing stormwater system configuration
  - Other details related to stormwater systems that are required to meet the stormwater performance requirements

# STORMWATER CONTROL PLAN INSTRUCTIONS

## APPENDIX D: DRAFT MAINTENANCE AGREEMENT TEMPLATE

Prior to submittal of the Final SCP, the Project Team must initiate coordination of the Maintenance Agreement with the Owner or Project Proponent using the Maintenance Agreement Template and the Maintenance Agreement Recordation Process memo.

**Determine Maintenance Agreement Template**

- Use the Maintenance Agreement Template for privately funded development projects.
- Alternate Maintenance Agreement templates are available upon request for projects with special circumstances, such as Federal or CCSF funded/owned projects.

**NOTE: All plans and exhibits submitted with the Maintenance Agreement will be recorded and become part of the permanent record for the property.**

## SCP SUBMITTAL FORMAT

Please submit the **Preliminary SCPs** and **Final SCPs** in both of the following formats:

- **One (1) Hardcopy:** Bound 8.5 x 11" document with 11 x 17" plan foldouts. Half-size plans accepted if required for legibility. **NOTE: Full-size plans and stapled reports are not accepted.**
- **One (1) Electronic Copy:** Submit as one collated PDF file. Provide means for SFPUC Project Review staff to download file or submit a CD with the Hardcopy.

Submit all SCPs or direct questions to either the SFPUC or the Port, depending on overseeing jurisdiction:

**Attn.: SCP Project Reviewer**
**c/o Ken Kortkamp**
**SFPUC, Wastewater Enterprise**
**525 Golden Gate Ave, 11th Floor**
**San Francisco, CA 94102**
**stormwaterreview@sfwater.org**

**Attn.: Port Project Reviewer**
**c/o Richard Berman**
**The Port of San Francisco**
**Pier 1**
**San Francisco, CA 94111**
**Richard.Berman@sfport.com**

**NOTE: If the SCP is not submitted in a complete and proper format, the SFPUC reserves the right to not accept the SCP and request that the Project Team resubmit with the appropriate content.**

## SCP PREPARATION CHECKLISTS

**To streamline the SCP review and approval process, these helpful checklists have been prepared for the Project Team's internal use prior to submittal.**

The SCP Preparation Checklists contain:
- Preliminary SCP Preparation Checklist
- Final SCP Preparation Checklist

Remember that each SCP is reviewed on a case-by-case basis and all line items in the Preparation Checklists may not apply to your particular project. A complete and carefully prepared SCP will reduce review time and increase the potential for approval.