



STORMWATER CONTROL PLAN INSTRUCTIONS

How to complete and submit a Stormwater Control Plan for Multi-Phase 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 \(Guidelines\)](#). To determine if a right-of-way project must comply with the *Guidelines* refer to the SFPUC memo: [Application of the Stormwater Design Guidelines Requirements to the Public Right-Of-Way](#).

The SCP submittal is separate from other documentation submitted through the DPW Street Improvement Permit approval process. 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**.
- DPW will not issue any Street Improvement Permits until the SFPUC approves the Final SCP, unless otherwise specified by the project's Development 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: Redevelopment Phasing Map(s)
- Appendix B: Calculation Spreadsheets or Modeling Output
- Appendix C: Supporting Documentation
- Appendix D: Construction Document Drawings (Excerpts related to stormwater management)

SCP SUBMITTAL TIMELINE

The SFPUC staff review SCPs based on the **Typical Redevelopment Project Review Process Diagram** (p 2).

Pre-Application Meeting: Coordinate with SFPUC to schedule a meeting early during the planning and team building process. Early coordination will minimize design challenges and project schedule delays.

Preliminary SCP: Submit when plans are at 35% CD design level, unless otherwise specified by the applicant's individual Development Agreement.

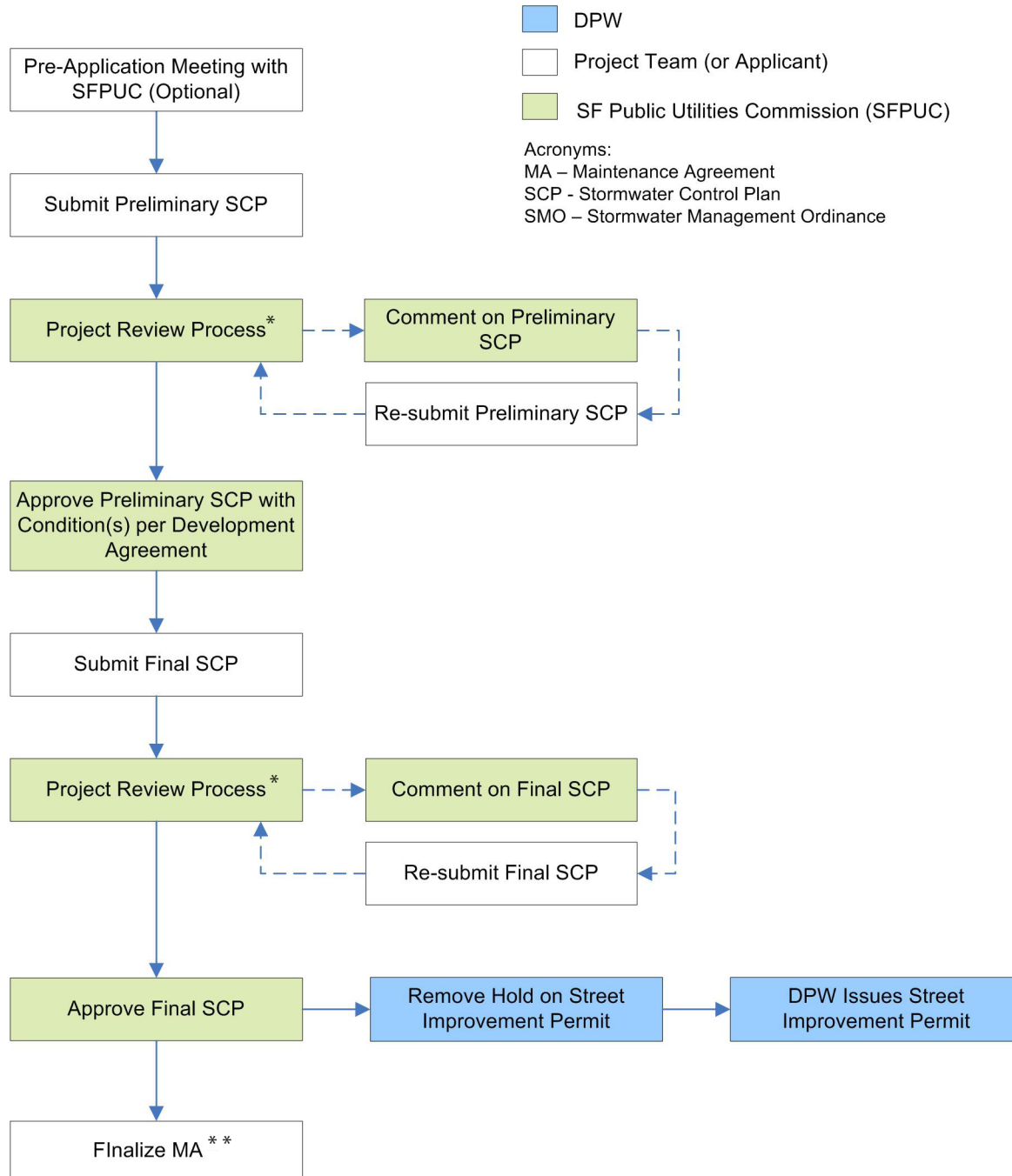
- Project schedules should reflect possible need for more than one Preliminary SCP submittal prior to approval.
- Submittal timeline varies and should reflect document review procedures outlined in the project sub-division code or Development Agreements.

Final SCP: Submit prior to issuance of DPW Street Improvement Permit, unless otherwise specified by the applicant's individual Development Agreement.

- Attached plans should reflect design level per the applicant's individual Development Agreement requirements (e.g. 100% CDs).
- Project schedules should reflect possible need for more than one Final SCP submittal prior to approval.
- Submittal timeline varies and should reflect document review procedures outlined in the project sub-division code or Development Agreements.

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TYPICAL MULTI-PHASE SCP PROJECT REVIEW PROCESS



* Review Process may vary per individual Development Agreement requirements.

**Process varies depending on project's individual Maintenance Agreement.



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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 (MULTI-PHASE PROJECTS)

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.
- Discuss the plan for overall redevelopment phasing and how stormwater compliance will be met at each phase of the project. Clearly explain how the current SCP fits into overall redevelopment plan. Discuss how the stormwater management approach will result in the required performance.
- Summarize the opportunities and constraints for stormwater management, including any site conditions checked in the Project Description of the Project Information Form.
- Include a summary of the process used to select each proposed stormwater control Best Management Practice (BMP) based on site conditions.

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 versus 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)



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SECTION 3: CALCULATION SUMMARY AND TABLE (CONTINUED)

Provide a Stormwater Control Performance Summary Table. This table should clearly show that the proposed SCP 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 each individual drainage management area **and** for this SCP phase
 - ACHIEVED peak flow rate and volume for this SCP phase vs. overall redevelopment area.
- **Separate Sewer Areas:**
 - REQUIRED total treatment volume (cf) to meet the performance requirement
 - ACHIEVED treatment volume for each individual drainage management area **and** for this SCP phase
 - ACHIEVED peak flow rate and volume for this SCP phase vs. overall redevelopment area.

SECTION 4: STORMWATER MANAGEMENT PLAN (SMP)

NOTE: The [Stormwater Management Plan \(SMP\)](#) must be a **black and white document.**

Include a SMP as a new drawing using an 11x17 format that coordinates with the attached Construction Document drawings (unless submitted to the DPW Task Force with corresponding Street Improvement Permit CD set).

- 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 view.
- 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 watersheds are proposed, 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)



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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 components).
- 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).

- For applicable projects, coordinate with SFPUC regarding sample BMP Maintenance Schedule Templates.
- 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 may be 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 per the Development Agreement (coordinate with the SFPUC).

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).

- Coordinate with the SFPUC regarding sample BMP Inspection Checklist Templates.
- 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 per the Development Agreement (coordinate with the SFPUC).



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APPENDIX A: REDEVELOPMENT PHASING MAP

Overall Phasing Plan Map: As appropriate, include the following map to illustrate overall project Phasing Plan:

- Clearly delineate the entire redevelopment boundary, with each Major Phase and Sub-Phase delineated and labeled.
- Clearly delineate and label this SCP's project boundary.
- Indicate which areas have already been developed and/or have previously submitted an SCP for each Major-Phase and Sub-Phase.

APPENDIX B: CALCULATIONS OR MODELING OUTPUT

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

- Relevant stormwater calculations per the [Accepted Hydrologic Calculation Methods](#) memorandum, including but not limited to:
 - The SFPUC BMP Sizing Calculator(s) for [Separate Sewer Areas](#)
 - Hydrologic model with input and output (e.g. SWMM, Pondpack, etc.)
 - Supplemental calculations (as needed) (e.g. Hydraulic and/or Hydrology sizing spreadsheet(s))
- 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

APPENDIX C: 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
- Soil infiltration test results and test methodology
- Soil test results (e.g. Soil Management Plan)
- 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.



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APPENDIX C: SUPPORTING DOCUMENTATION (CONTINUED)

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

- Project specifications excerpts (as applicable). Include specific pages from the Project Manual (e.g. specifications) that relate to stormwater control BMP materials or components, including:
 - BMP materials, such as: clean open-graded aggregates, bioretention soils, permeable paving, etc.
- BMP proprietary product sizing and/or specifications

APPENDIX D: 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.
- **Surface Improvement/Streetscape Plan(s):** General ROW improvements (e.g. plan and profile drawings).
- **Utility Plan(s):** Proposed overall drainage system including connections to the combined or separate sewer system.
- **Grading Plan(s):** Proposed grading with clearly labeled site contours, spot elevations, site slopes.
- **Storm Drain Plan(s):** Drawings of proposed storm drain system with connection to BMPs clearly drawn.
- **Site Layout/Materials Plan(s):** Proposed layout of overall project site and location of materials related to stormwater control BMPs (e.g. permeable paving, landscaping, etc.)
- **Planting Plan(s):** Proposed BMP Planting Plan and BMP Plant Lists including species and quantities of all trees, plants and seed mixes.
- **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
 - Stormwater planters
 - Planting details specific to stormwater control BMPs
 - Rainwater harvesting system, tank section, and components
 - Schematic line diagrams showing stormwater system configuration and flow direction.
 - Other details related to stormwater systems that are required to meet the stormwater performance requirements

NOTE: Construction Document Drawings are not required at Appendix D if the SCP is submitted at the same time the corresponding Street or Public Improvement Plans are submitted to DPW.



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MAINTENANCE AGREEMENT INFORMATION

Coordinate with the SFPUC regarding maintenance agreements and responsibilities as required for specific redevelopment projects or as specified by the applicants Individual Development Agreements.

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@sfgwater.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.

NOTE: The SCP Preparation Checklists are currently designed for parcel projects and will soon be updated to reflect the multi-phase project procedures.