Appendix V. PWD SOP-4.5.6: Storm Water Permanent Post-Construction BMP Design

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CITY OF SAN DIEGO, CALIFORNIA **Standard Operating Procedure**	NUMBER SOP-4.5.6	DEPARTMENT **Public Works –**
SUBJECT **Storm Water Permanent Post-Construction BMP Design** Planning, Pre-Design, and Design	PAGE 1 OF X	EFFECTIVE DATE Month/Day/Year
	SUPERCEDES SOP - PAGES	DATED

1.0 PURPOSE:

To implement a procedure and quality assurance/quality control (QA/QC) program that requires and confirms structural best management practices (BMPs) on all Standard and Priority Development Projects (PDP) are designed to remove pollutants in storm water during the planning, pre-design, design, and plan check phases of the Capital Improvement Program (CIP) projects to the Maximum Extent Practical (MEP). The goal of this SOP is to identify the duties and responsibilities of Project Implementation and Design Divisions in complying with the federal, state, and local storm water regulations including but not limited to the training program, grandfathering rule, reporting and tracking of permanent, post-construction storm water BMPs.

2.0 SCOPE:

This procedure applies to Capital Improvement Program (CIP) projects requiring treatment of storm water-related pollution and site runoff prior to discharge to the storm water conveyance system and the receiving waters:

All projects and construction activities are required to implement permanent construction BMPs with exception to the following:

a. Projects that are considered routine maintenance, or are otherwise not categorized as “development projects” or “redevelopment projects” according to the Storm Water Standards Manual.
b. Trenching and resurfacing work associated with utility work; resurfacing existing roadways; new sidewalk construction, pedestrian ramps, or new bike lanes on existing roads; and routine replacement of damaged pavement, such as pothole repair.

This SOP does not include storm water compliance procedures during construction and post-construction as this is further discussed in another SOP.

3.0 BACKGROUND:

Runoff conveyed and discharged by municipal storm water systems has been identified by local, regional, and national research programs as one of the principal causes of water quality problems in urban areas such as the City of San Diego. This runoff may potentially contains a host of pollutants including trash, debris, bacteria, viruses, oil, grease, sediments, nutrients, metals, and toxic chemicals. These contaminants can

adversely affect the beneficial uses of receiving creeks, coastal waters, associated wildlife habitat, and public health.

Additionally, new impervious surfaces often become a source of pollutants associated with development. Pollutants such as automotive fluids, cleaning solvents, hazardous chemicals, sediment, metals, pesticides, oil and grease, and food wastes can be conveyed via impervious surfaces to the receiving storm water conveyance system by urban runoff. Such pollutants often flow untreated through the storm water conveyance system and ultimately into the City's creeks, bays and beaches.

As part of the 1972 Clean Water Act, Sections 307, 318, 402, and 405, Congress established the National Pollutant Discharge Elimination System (NPDES) to regulate the discharge of pollutants from municipal sanitary sewers and industries. The NPDES was expanded in 1987 to incorporate permits for storm water discharges as well.

A storm water conveyance system (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) has been developed to direct storm water into natural, man-made, or partially modified features. This system of drainage is referred to as the Multiple Separate Storm Sewer System (MS4). The MS4 is:

a. Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or designated and approved management agency under section 208 of the CWA that discharges to waters of the United States
b. Designated or used for collecting or conveying storm water
c. Not a combined sewer
d. Not part of the Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.26. Water from rain events within the City of San Diego are carried into the MS4, which then drain into receiving waters such as rivers, reservoirs or bays. The MS4 also directs water into the Pacific Ocean.

Applicable Regulations:

The Municipal Storm Water Permit Order No. R9-2007-0001 (MS4 permit), was issued on January 24, 2007 by the Regional Water Quality Control Board (RWQCB) to the City, the County of San Diego, the Port of San Diego, and 18 other regional copermittees. Per the MS4 permit order, the San Diego Copermittees are required to develop and implement storm water pollution regulations for private and public development projects. These regulations include requirements for Low-Impact Development (LID) design approaches and development of a Hydromodification Management Plan (HMP) to mitigate development-related erosion of receiving creeks and rivers.

4.0 RESPONSIBILITY:

To comply with the Municipal Permit, it is the responsibility of each section in the PI and ROW/AEP Design Divisions to ensure this SOP is followed. The following is a list of the responsibilities for each section in the PI and ROW/AEP Design Divisions beginning with the planning through the plan check phase of the project:

Asset Department (AD) – If Planning Report is to be completed by Asset Department the Asset Department shall include recommendations, costs and schedule for the design and construction of LID and permanent BMP, and development of HMP. The AD shall also include the completed DS-560 or PDP table from SWS and provide the area of disturbance and lot size in the project intake form to assess the scope of design and construction of the LID and permanent BMP.

Planning Report – Conceptual plan should include prelim costs, type and approximate location for any permanent BMP required. A location map shall also be included showing the watershed area (HSA) for the project.

Project Implementation

Preliminary Engineering and Program Coordination (PEPC) is responsible for identifying the permanent BMP requirements and the the projct site priority (priority, standard, or exempt project) after review of the Preliminary Environmental Assessment (PEA) from Environmental Permit Section (EPS). In the pre-design report, the watershed (aka Hydrologic Unit) and sub-watershed (aka Hydrologic Subarea) basins will be identified.

Standards and Quality Control Section (S&QC) assures that the Water Quality Technical Report (WQTR), the BMP Plans, and Specifications are consistent prior to

processing the contract documents for advertising and bidding. S&QC reviews WQTR for completeness and verifies certification by Engineer. Analysis of the project's anticipated pollutants of concern, anticipated pollutants of concern in downstream receiving waters, and conditions of concern, must also be included in the Water Quality Technical Report as part of the project submittal.

GRC/JOC and A/E Consultant Services (GRC/JOC/AE) shall ensure that storm water compliance design requirements are included in any consultant agreements and GRC/JOC and emergency construction contracts including but not limited to preparing a Minor Water Pollution Control Plan, Water Quality Technical Report, source control, LID site design, treatment control BMPs and hydromodification controls (where applicable).

Environmental and Permitting Support (EPS) shall review the request for Preliminary Environmental Assessment request and identify the requirements for Storm Water Compliance including but not limited to LID and BMPs.

Design ROW and AEP Sections

These sections are responsible to design the permanent storm water BMPs for post-construction phases of the project that retain (i.e. intercept, store, infiltrate, evaporate, and evapotranspire) pollutants onsite contained in the volume of storm water runoff produced from a 24-hour 85th percentile storm event (design capture volume).

Projects shall incorporate, where applicable, storm water permanent BMPs into the project design, in the following progression:

a. LID and Site Design
b. BMPs Source Control BMPs
c. Treatment Control BMPs (TCBMP)

In addition, they shall develop or keep a copy of maintenance agreement or mechanism assuring all permanent BMPs will be maintained throughout the "use" of a project site.

5.0 PROCEDURE:

Planning/ Pre-Design

1. Pre-Design shall send a Preliminary Environmental Assessment (PEA) request that includes permanent post-construction storm water requirements to Environmental and Permitting Support (EPS). The PEA shall include the total

disturbance area. Determinations made at this stage of the project can be fairly certain or suggest potential applicability especially if the project description is less defined than needed.

2. The project site priority of Exempt, Standard, or Priority (as listed below) is determined by EPS based on the project scope submitted by the asset department. This preliminary determination is included in the PEA request submitted to the EPS. The PEA shall also include discussion on the Storm Water Compliance Requirements and associated costs for design and construction of construction and permanent BMPs.

    a. **Exempt** - Not a development or redevelopment project and there are no permanent BMP requirements, but other requirements, such as source control BMP measures, still apply.
    b. **Standard** - On-site structural permanent BMP requirements are incorporated into planning and design, regardless of project type or size.
    c. **Priority** - Above standard requirements are incorporated into a WQTR with drainage study and hydrologic analysis and include the mechanism under which ongoing long-term maintenance of all structural BMPs will be conducted.

    Attached are the following checklists and guidelines assist the Project Manager in determining requirements for Storm Water Compliance:

    a. DS-560 Storm Water Requirements Applicability Checklist
    b. Flowchart for determining when the Redevelopment Rule applies
    c. Flowchart for HMP Applicability Checklist
    d. DPD Determination Table 2-1
    e. Water Quality Technical Report Guidelines

3. Once PEA is received, the PDPM shall perform the following:
    a. Include the storm water requirements in the pre-design report,
    b. Update the P6 with the appropriate project code for Perm BMP type in P6 (Exempt, Standard, Priority),
    c. Insert a location map showing the watershed area in the pre-design report.

A Watershed-based Inventory is part of mapping CIP data in the ArcGIS environment. The location map created by the PDPM in CIP tracking will identify the watershed (aka Hydrologic Unit) and sub-watershed (aka Hydrologic Subarea) basins.

4. Initial design consultation or conceptual review is recommended on an as-needed basisfrom the Transportation and Storm Water Department - Storm Water Division (T&SW) to suggest permanent BMPs and identify any environmental constraints around the BMPs that are chosen.

5. The costs and schedule in the project charter shall include the design and construction of permanent BMP's. The pre-design report shall also include discussion on the costs for maintaining permanent BMPs. This may require review and approval of the Asset Owner and T&SW for maintenance purposes.

6. Where applicable, the pre-design report shall address issues regarding alternative compliance and/or offisite mitigation requirements due to site restriction. Sie restrictions may require procurement of easement or land from adjacent properties to install new BMPs.

7. PDPM shall also assess the project for potential additional requirements due to new permit requirements based on the preliminary date of the Notice to Proceed for Construction. Provisions shall be made for additional design work when project is delayed and project needs to comply with new permit requirements. See latest memo signed by City Engineer on Storm Water Permit Applicability for CIP projects.

Design: SAP – G/L

1. Design PM hall review the project the pre-design report, scope of work and verify the requirements for storm water compliance. If needed, consultant can be hired to prepare the design and specifications for LID and Site Design, BMPs Source Control BMPs and TCBMPs including preparation of the Hydrology Study and Water Quality Technical Report (WQTR).

   For standard and priority development projects, a separate cost item for the design of structural BMPs and Water Quality Technical Report (for priority only) shall be included in the consultant services. The consultant shall also inspect and certify that the BMP constructed is acceptable by signing the as-built plans for the BMPs.

2. All standard and priority development projects have long-term maintenance requirements for all TCBMPs per the MS4 permit's Standard Urban Storm Water Mitigation Plan (SUSMP). The project manager will need to have the asset department and maintenance department identify the mechanism for ensuring the treatment controls operational, maintainable and functioning in perpetuity. See attached copies of maintenance agreement.

3. The Design PM shall review the consultant's design and technical specifications and processes these for T&SW and Constructability reviews prior to submitting the project to S&QC for advertising.

8. The Design PM shall review additional design requirements if project is delayed and the scope of work has increased that my require additional permit requirements. See latest memo signed by City Engineer on Storm Water Permit Applicability for CIP projects for any delays to NTP for construction. These applies to any design-build, MACC or CM-AT-Risk projects.
4.

When Caltrans is involved, a Storm Water Data Report (SWDR)…

Minor Water Pollution Control Plan (MWPCP) - For any ground disturbance work including geotechnical work, potholing and coring work, a MWPCP shall be completed and kept in the project files. The following process shall be followed:

a. The Minor WPCP shall be added to all consultant Agreements for proposed soil-disturbance work such as geotechnical borings, street coring and potholing. See below for language:

> ***"4.18 Storm Water Management Discharge Control.*** *Consultant shall comply with all Best Management Practice (BMP) guidelines and pollution elimination requirements found in Chapters 11, 12, 13 and 14 of the City of San Diego Municipal Code, known collectively as the Land Development Code. The Consultant shall prepare, design, and incorporate storm water measures such as a Water Pollution Control Plan or Minor Water Pollution Control Plan (Minor WPCP), in accordance with the City's Storm Water Standards Manual.*

b. For any design-related work in the City ROW, a ROW permit will not be required, however, an approved plan (by the PM) is required to show all soil disturbance locations and include language regarding restoration of the ROW.

c. Consultant shall fill out and sign the Minor WPCP form for CIP projects (see attached form). Consultant shall complete and submit the form with plans showing location of soil disturbance to the PM for review, approval and record keeping (since there will be no RE assigned to any geotechnical /coring work).

   If project is in Environmentally Sensitive Land (ESL) for any geotechnical or soil disturbance work, submit a Bulletin 511 to DSD which is for public projects geotechnical investigation.

d. For City staff performing any of the above, the Project Manager shall complete the Minor WPCP form with plans showing location of soil disturbance and coordinate the work with Field Division. This shall be attached to the memo requesting pavement coring to Field Division.

Transportation & Storm Water Division's Plan Check - The Design PM shall follow the following procedure in T&SW's review of permanent BMPs for Priority Development Projects:

a. Project Consultation Review (highly recommended at 30% or Early Design Phase – Submit the project using the standard project consultation form. When necessary, the Design PM shall address comments made by T&SW and schedule a review meeting with T&SW and design consultant to address issues and finalize the proposed BMP design.

b. 60% and 100% Design Phase (for operations and maintenance review) – Submit the project for review to Chris Gascon using the attached memo. The Design PM shall address comments made by T&SW and schedule a review meeting with T&SW and design consultant to address issues and finalize the proposed BMP design.

Constructability Review – The Design PM shall follow the SOP for Field Division's constructability review process.

QA/QC Review Process – The Design PM shall submit the design plans, technical specifications, estimates and bid proposal to S&QC's review. Separate bid items shall be created for all storm water related work. S&QC shall review the plans, specifications and cost estimates for permanent BMPs to ensure compliance with MS4 permit and WQTR. Regardless of project type, recommendations are included and detailed on plans and specifications.

Construction - Any changes to designs shall be reviewed and approved by PM with final approval from asset owner for funding and TSW for maintenance.

Post-Construction
Design consultant or Engineer of Record shall inspect, approve, and certify that permanent BMPs have been built per plan. A copy of the final as-builts shall be sent to T&SW (Chris Gascon and Juan Magdaraog.

Tracking - A Watershed-based database will inventory all PDP structural BMPs for CIP projects. The following information will be part of the required annual reporting:

a. Priority Development Project location (address and HSA)
b. Descriptions of structural BMP type(s)
c. Date(s) of construction
d. Party responsible for structural BMP maintenance
e. Dates and findings of structural BMP maintenance verifications
f. Corrective actions and/or resolutions, when applicable

Reporting - Jurisdictional Urban Runoff Management Plan requires annual reports be sent to the Regional Water Quality Control Board. The data collected for each project in ArcGIS will provide the RWQCB with the following information:

a. Number of proposed development projects in review

b. Number of Priority Development Projects in review
c. Number of Priority Development Projects approved
d. Number of approved Priority Development Projects exempt from any BMP requirements
e. Number of approved Priority Development Projects allowed alternative compliance

Training – see attached Training Plan. This plan shall be updated periodically to ensure additional trainings on new permit requirements are provided to staff.

6.0 DEFINITIONS:

Clean Water Act Section 303(d) Water Body. An impaired water body in which water quality does not meet applicable water quality standards and/or is not expected to meet water quality standards, even after the application of technology based pollution controls required by the CWA. The discharge of runoff to these water bodies by the Copermittees is significant because these discharges can cause or contribute to violations of applicable water quality standards.

Environmentally Sensitive Areas (ESAs). Areas that include but are not limited to all Clean Water Act Section 303(d) impaired water bodies; areas designated as Areas of Special Biological Significance by the State Water Board and San Diego Water Board; State Water Quality Protected Areas; water bodies designated with the RARE beneficial use by the State Water Board and San Diego Water Board; areas designated as preserves or their equivalent under the Natural Communities Conservation Program within the Cities and County of Orange; and any other equivalent environmentally sensitive areas which have been identified by the Copermittees.

General Storm Water NPDES Permit. Any NPDES Permit issued by the State Water Resources Control Board in accordance with 40 Code of Federal Regulations section 122.28.

Hydromodification Management Plan (HMP). A Plan implemented by the dischargers so that post-project runoff shall not exceed estimated pre-development rates and/or durations, where increased runoff would result in increased potential for erosion or other adverse impacts to beneficial uses.

Illegal Discharge. Any discharge to the Storm Water Conveyance System that is not composed entirely of Storm Water, or is prohibited by federal, state, or local laws, or degrades the quality of Receiving Waters in violation of any Plan Water Quality Objective.

Jurisdictional Urban Runoff Management Plan (JURMP). A written description of the specific jurisdictional urban runoff management measures and programs that each Copermittee implements to comply with the storm water NPDES permit and ensure pollutant discharges are reduced to the MEP and do not cause or contribute to a violation of water quality standards. See Section 5 for reference to the local JURMP adapted for the city of San Diego jurisdiction.

Low Impact Development (LID). An integrated site design methodology that uses small-scale detention and retention (Integrated Management Practices, or IMPs) to mimic naturally occurring (pre-development) site hydrological conditions.

Maximum Extent Practicable [MEP]. The technology-based standard established by Congress in Clean Water Act section 402(p)(3)(B)(iii) that municipal dischargers of Storm Water dischargers must meet. MEP generally emphasizes pollution prevention and source control BMP primarily in combination with treatment methods serving as a backup.

Pre-Development Runoff Conditions. Approximate flow rates and durations that exist or existed onsite before land development occurs. For new development projects, this equates to runoff conditions immediately before project construction. For redevelopment projects, this equates to runoff conditions from the project footprint assuming infiltration characteristics of the underlying soil, and existing grade. Runoff coefficients of concrete or asphalt must not be used. A redevelopment Priority Development Project must use available information pertaining to existing underlying soil type and onsite existing grade to estimate pre-development runoff conditions.

Priority Development Project (PDP). A project subject to SUSMP requirements.

Receiving Waters. Surface bodies of water, which directly or indirectly receive discharges from urban runoff conveyance systems, including naturally occurring wetlands, streams (perennial, intermittent, and ephemeral (exhibiting bed, bank, and ordinary high water mark)), creeks, rivers, reservoirs, lakes, lagoons, estuaries, harbors, bays and the Pacific Ocean.

Redevelopment. The creation and/or replacement of impervious surface on an already developed site. Examples include the expansion of a building footprint, road widening, the addition to or replacement of a structure, and creation or addition of impervious surfaces. Replacement of impervious surfaces includes any activity that is not part of a routine maintenance activity where impervious material(s) are removed, exposing underlying soil during construction. Redevelopment does not include trenching and resurfacing associated with utility work; resurfacing existing roadways; new sidewalk construction, pedestrian ramps, or bike lane on existing roads; and routine replacement of damaged pavement, such as pothole repair.

Site Design BMP. Any project design feature that reduces the creation or severity of potential pollutant sources or reduces the alteration of the project site's natural flow regime.

Source Control BMP. (both structural and non-structural). Land use or site planning practices, or structures that aim to prevent urban runoff pollution by reducing the potential for contamination at the source of pollution. Source control BMPs minimize the contact between pollutants and urban runoff.

Standard Urban Storm Water Mitigation Plan (SUSMP). Refers to various documents prepared in connection with implementation of the storm water NPDES permit mandate to control pollutants from new development and redevelopment. The City's Storm Water Standards Manual significantly conforms to the Model SUSMP and will continue to be used in its present forms until the next required permit update (March 2013).

Storm Water Conveyance System. Those municipal and natural facilities within the City of San Diego by which Storm Water may be conveyed to waters of the United States, including any roads with drainage systems, municipal streets, catch basins, natural and artificial channels, aqueducts, canyons, stream beds, gullies, curbs, gutters, ditches, natural and artificial channels or storm drains.

Treatment Control BMP. Any engineered system designed to remove pollutants by simple gravity settling of particulate pollutants, filtration, biological uptake, media absorption or any other physical, biological, or chemical process.

Watershed. That geographical area which drains to a specified point on a water course, usually a confluence of streams or rivers (also known as drainage area, catchment, or river basin).

7.0 REFERENCES AND/OR RELATED DOCUMENTS:

a. Land Development Manual – Storm Water Standards/BMP Design Manual
b. Land Development Code – Storm Water Management & Discharge Control
c. Project Submittal Requirements – Public Projects
d. MS4 – General Permit
e. Low Impact Design Manual – Storm Water Division
f. Jurisdictional Urban Runoff Management Plan (JURMP) – Storm Water Division

8.0 ATTACHMENTS:

a. DS-560: Storm Water Requirements Applicability Checklist
b. SWS: Fig. 2.1 - Flow Chart for Determining Applicability of Redevelopment Rule
c. SWS: Fig. 4.1 – HMP Applicability Determination
d. SWS: Table 2-1 PDP Determination
e. WQTR Guidelines and Template
f. Minor WPCP Form
g. T&SW's Project Consultation and 60%/100% Design Review templates

9.0 PRIMAVERA ACTIVITIES:

Pre-Design Report

30%, 60% and 100% Design

DS-560 (2 pages)
(double-click the image for pdf)

City of San Diego
Development Services
1222 First Ave., MS-302
San Diego, CA 92101
(619) 446-5000

Storm Water Requirements Applicability Checklist

FORM
DS-560
JANUARY 2011

Project Address:	Project Number *(for City Use Only):*

SECTION 1. Permanent Storm Water BMP Requirements:
Additional information for determining the requirements is found in the Storm Water Standards Manual.

Part A: Determine if Exempt from Permanent Storm Water BMP Requirements.
Projects that are considered maintenance, or are otherwise not categorized as "development projects" or "redevelopment projects" according to the Storm Water Standards manual are not required to install permanent storm water BMPs. **If "Yes" is checked for any line in Part A, proceed to Part C and check the box labeled "Exempt Project." If "No" is checked for all of the lines, continue to Part B.**

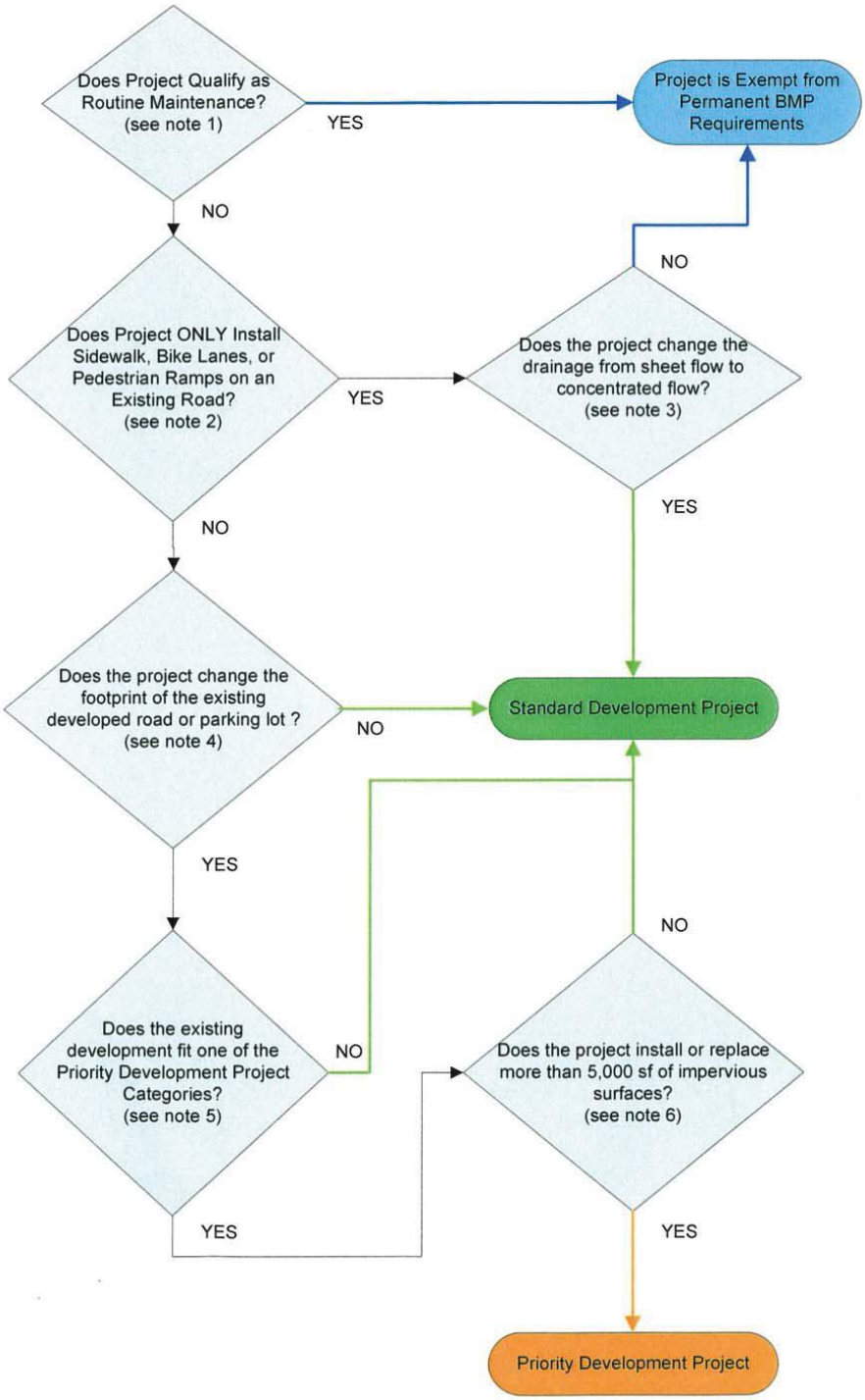
1.	The project is not a Development Project as defined in the Storm Water Standards Manual: for example habitat restoration projects, and construction inside an existing building.	❑ Yes ❑ No
2.	The project is only the construction of underground or overhead linear utilities.	❑ Yes ❑ No
3.	The project qualifies as routine maintenance (replaces or renews existing surface materials because of failed or deteriorating condition). This includes roof replacement, pavement spot repairs and resurfacing treatments such as asphalt overlay or slurry seal, and replacement of damaged pavement.	❑ Yes ❑ No
4.	The project only installs sidewalks, bike lanes, or pedestrian ramps on an existing road, and does not change sheet flow condition to a concentrated flow condition.	❑ Yes ❑ No

Part B: Determine if Subject to Priority Development Project Requirements.
Projects that match one of the definitions below are subject to additional requirements including preparation of a Water Quality Technical Report.
If "Yes" is checked for any line in Part B, proceed to Part C and check the box labeled "Priority Development Project." If "No" is checked for all of the lines, continue to Part C and check the box labeled "Standard Development Project."

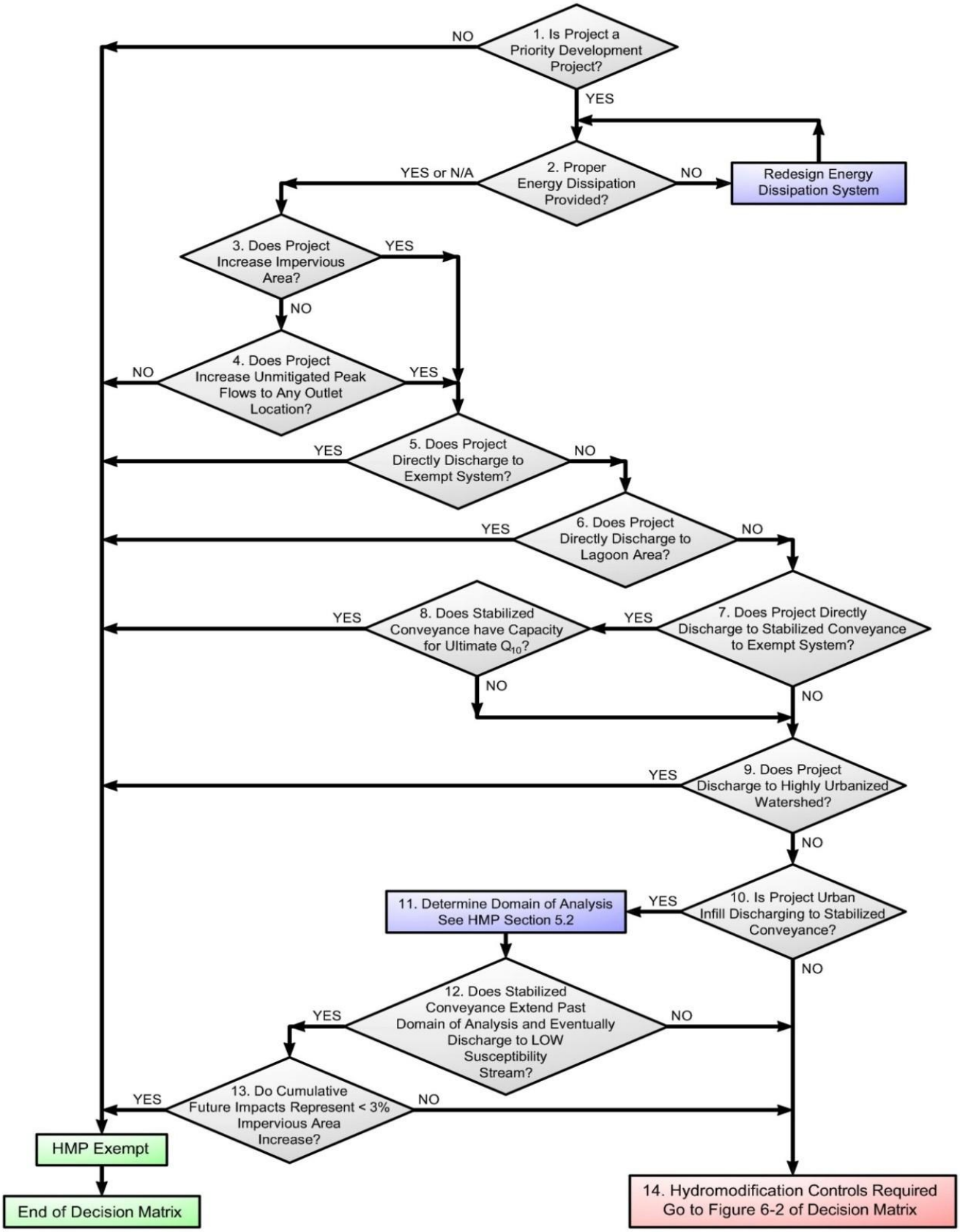
1.	**Residential development of 10 or more units.**	❑ Yes ❑ No
2.	**Commercial development and similar non-residential development greater than one acre.** Hospitals; laboratories and other medical facilities; educational institutions; recreational facilities; municipal facilities; commercial nurseries; multi-apartment buildings; car wash facilities; mini-malls and other business complexes; shopping malls; hotels; office buildings; public warehouses; automotive dealerships; and other light industrial facilities.	❑ Yes ❑ No
3.	**Heavy industrial development greater than one acre.** Manufacturing plants, food processing plants, metal working facilities, printing plants, and fleet storage areas.	❑ Yes ❑ No
4.	**Automotive repair shop.** Facilities categorized in any one of Standard Industrial Classification (SIC) codes 5013, 5014, 5541, 7532-7534, or 7536-7539.	❑ Yes ❑ No
5.	**Restaurant.** Facilities that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC code 5812), and where the land area for development is greater than 5,000 square feet.	❑ Yes ❑ No
6.	**Hillside development greater than 5,000 square feet.** Development that creates 5,000 square feet of impervious surface and is located in an area with known erosive soil conditions and where the development will grade on any natural slope that is twenty-five percent or greater.	❑ Yes ❑ No
7.	**Water Quality Sensitive Area.** Development located within, directly adjacent to, or discharging directly to a Water Quality Sensitive Area (as depicted in Appendix C) in which the project either creates 2,500 square feet of impervious surface on a proposed project site or increases the area of imperviousness of a proposed project site to 10% or more of its naturally occurring condition. "Directly adjacent" is defined as being situated within 200 feet of the Water Quality Sensitive Area. "Discharging directly to" is defined as outflow from a drainage conveyance system that is composed entirely of flows from the subject development or redevelopment site, and not commingled with flows from adjacent lands.	❑ Yes ❑ No
8.	**Parking lot with a minimum area of 5,000 square feet or a minimum of 15 parking spaces** and potential exposure to urban runoff (unless it meets the exclusion for parking lot reconfiguration on line 11).	❑ Yes ❑ No

Printed on recycled paper. Visit our web site at www.sandiego.gov/development-services.
Upon request, this information is available in alternative formats for persons with disabilities.
DS-560 (01-25-11)

DRAFT – Flow Chart for Determining When the Redevelopment Rule Applies



HMP Applicability Checklist



PDP Determination Table 2-1
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Table 2-1. Priority Development Project Determination

Yes	No	Is the project in any of these categories?
❑	❑	**Residential development of 10 or more dwelling units.** Examples: single-family homes, multi-family homes, condominiums, and apartments.
❑	❑	**Commercial development and similar non-residential development greater than one acre.** Examples: hospitals; laboratories and other medical facilities; educational institutions; recreational facilities; municipal facilities; commercial nurseries; multi-apartment buildings; car wash facilities; mini-malls and other business complexes; shopping malls; hotels; office buildings; public warehouses; automotive dealerships; airfields; and other light industrial facilities.
❑	❑	**Heavy industrial development greater than one acre.** Examples: manufacturing plants, food processing plants, metal working facilities, printing plants, and fleet storage areas (bus, truck, etc.).
❑	❑	**Automotive repair shop.** A facility categorized in any one of Standard Industrial Classification (SIC) codes 5013, 5014, 5541, 7532-7534, or 7536-7539.
❑	❑	**Restaurant.** Any facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC code 5812), **and** where the land area for development is greater than 5,000 square feet.
❑	❑	**Hillside development greater than 5,000 square feet.** Any development that creates 5,000 square feet of impervious surface and is located in an area with known erosive soil conditions **and** where the development will grade on any natural slope that is twenty-five percent or greater.
❑	❑	**Water Quality Sensitive Area.** All development located within, directly adjacent to, or discharging directly to a Water Quality Sensitive Area (as depicted in Appendix C) in which the project either creates 2,500 square feet of impervious surface on a proposed project site or increases the area of imperviousness of a proposed project site to 10% or more of its naturally occurring condition. "Directly adjacent" is defined as being situated within 200 feet of the Water Quality Sensitive Area. "Discharging directly to" is defined as outflow from a drainage conveyance system that is composed entirely of flows from the subject development or redevelopment site, and not commingled with flows from adjacent lands.
❑	❑	**Parking lot with a minimum area of 5,000 square feet or a minimum of 15 parking spaces** and potential exposure to urban runoff (unless it meets the exclusion for parking lot reconfiguration on line 11).
❑	❑	**Street, road, highway, or freeway.** Any new paved surface in excess of 5,000 square feet used for the transportation of automobiles, trucks, motorcycles, and other vehicles (unless it meets the exclusion for road reconfiguration on line 11).
❑	❑	**Retail Gasoline Outlet (RGO)** that is: (a) 5,000 square feet or more or (b) have a projected Average Daily Traffic (ADT) of 100 or more vehicles per day.
❑	❑	**Significant Redevelopment;** the project installs and/or replaces 5,000 square feet or more of impervious surface **and** the existing site meets at least one of the categories above. The project is not considered Significant Redevelopment if reconfiguring an existing road or parking lot without a change to the footprint of an existing developed road or parking lot. The existing footprint is defined as the outside curb or the outside edge of pavement when there is no curb.
❑	❑	**Other Pollutant Generating Project.** Any other project not covered in the categories above, that disturbs one acre or more and is not excluded by the criteria below. *Exclusions that apply to line 12 only: Projects creating less than 5,000 sf of impervious surface and where any added landscaping does not require regular use of pesticides and fertilizers, such as a slope stabilization project using native plants, are excluded from this category. Calculation of the square footage of impervious surface need not include linear pathways that are for infrequent vehicle use, such as for emergency or maintenance access or for bicycle or pedestrian use, if they are built with pervious surfaces or if they sheet flow to surrounding pervious surfaces*

WQTR Guidelines (2 pages)
(double-click the image for pdf)

Purpose

To describe the permanent storm water Best Management Practices (BMPs) that will be incorporated in the project to mitigate the impacts of urban runoff due to the development.

Minimum Requirements

- Water Quality Technical Report prepared by Registered Civil Engineer registered in California
- Geologic Investigation Report prepared by a Registered Geotechnical Engineer, Registered Geologist, or Certified Engineering Geologist, registered in California.

Organization & Content

- Table of Contents
- Vicinity Map
- Project Description
  - Narrative of project activities
- Site Map
  - Entire property included on one map (use key map if multi-sheets)
  - Drainage areas and direction of flow
  - Private storm drain system(s)
  - Nearby water bodies and municipal storm drain inlets
  - Location of storm water conveyance systems (ditches, inlets, storm drains, etc.)
  - Location of existing and proposed storm water controls
  - Location of "impervious" areas- paved areas, buildings, covered areas
  - Locations where materials would be directly exposed to storm water
  - Location of building and activity areas (e.g. fueling islands, garages, waste container area, wash racks, hazardous material storage areas, etc.)
  - Areas of potential soil erosion (including areas downstream of project)
  - Location of existing drinking water wells
  - Location of existing vegetation to be preserved
- Pollutants and Conditions of Concern
  - Project located in which Watershed
  - Impaired water bodies downstream of the project and impairment
  - Impacts to hydrologic regime
  - Pollutants based upon land use
  - Drainage Study (may be appendix)
  - Geologic Study (may be appendix)
  - Hydromodification Element (may be appendix)
- Types of BMPs: