

WATER QUALITY ANALYSIS

FOR

**SAN DIEGO RIVER TRAIL
CARLTON OAKS GOLF COURSE SEGMENT
CITIES OF SAN DIEGO AND SANTEE, CA**

Prepared for

San Diego Association of Governments (SANDAG)

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Prepared by

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PURPOSE

This Water Quality Analysis Report has been prepared to provide an assessment of the compliance of the San Diego River Trail Project, Carlton Oaks Golf Course Segment Project with the California Regional Water Quality Control Board's National Pollution Discharge Elimination System permit (Municipal Separate Storm Sewer Systems (MS4) Permit); the MS4 Permit as amended by Order R9-2015-0001 and R9-2015-0100. The project is located in both the City of San Diego and City of Santee's jurisdiction. Because both cities are co-permittees of the MS4 permit, they have adopted local Storm Water Standards Manuals in compliance with the permit. Specifically, the City of San Diego's 2016 Storm Water Standards and the City of Santee's Storm Water Ordinance and BMP Design Manual.

Based on the City of San Diego and City of Santee's adopted storm water requirements, the San Diego River Trail Project, Carlton Oaks Golf Course Segment qualifies as a Priority Development Project (PDP) Exempt, Category 1 Project.

PROJECT DESCRIPTION

The San Diego Association of Governments (SANDAG) proposes to construct the Carlton Oaks Golf Course Segment of the San Diego River Trail (SDRT) within the cities of San Diego and Santee (the proposed project). The proposed project would consist of a Class I bikeway for the exclusive use of people walking and riding bikes and related physical improvements. It would extend a distance of approximately two miles between Carlton Hills Boulevard and West Hills Parkway through Mast Park, Mast Park West, and the Carlton Oaks Golf Course.

Specifically, the proposed project would extend westward from the Mast Park parking lot, under the Carlton Hills Boulevard bridge, and along the existing dirt trail that continues westward for approximately 0.5 mile through Mast Park West and terminates at the Carlton Oaks Golf Course. West of the terminus of the existing dirt trail, the proposed project would generally be constructed on or adjacent to the existing berm along the southern edge of the golf course for a distance of approximately 1.5 miles before its terminus at the existing sidewalk along West Hills Parkway. In general, the proposed project would include a 10-foot-wide paved bike path with 2-foot-wide pervious shoulders. Near the west end, the proposed project would install a bridge or similar structure to cross Sycamore Creek. Additional physical improvements could include installation of fencing, pedestrian-scaled lighting for safety, slope protection in slope areas south of the existing berm in which erosion is evident, removal and replacement of low flow drainage crossings along Mast Park West, revegetation of slopes, restoration of disturbed areas within the golf course, retaining walls, and other minor improvements.

Construction of the project is estimated to begin in late 2018 and take approximately 12 months to complete. Construction staging is anticipated to occur within the golf course and will avoid sensitive biological resources. Access during construction could be provided from West Hills Parkway; an existing dirt road within a utility easement along the eastern boundary of the golf course accessible from Carlton Oaks Drive; and/or from the parking lot at Mast Park, which could require excavation under the Carlton Hills Boulevard bridge to provide adequate vertical clearance for construction equipment, and along the existing dirt trail in Mast Park West. Some construction access points would require a temporary construction easement or other permission/agreement from property owners before use for construction access.

SECTION 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS

The San Diego River Trail Project, Carlton Oaks Golf Course Segment is within the San Diego River Basin, in the San Diego River (Upper) Segment. The San Diego River (Upper) Segment is not listed on the 2012 version of the 303(d) list of surface water bodies that are polluted (referred to in the law as “water quality limited segments”).

The project proposes a paved, non-motorized trail. Runoff from the project would be directed to adjacent vegetated areas or other non-erodible permeable areas. Following the City of San Diego and City of Santee’s Site Design Best Management Practices, the project would not create an adverse impact to water quality in the San Diego River (Upper) Basin.



Source: Google Earth

Figure 1 – Proposed Project Alignment

CITY OF SAN DIEGO STORM WATER REQUIREMENTS

The proposed project qualifies as exempt from City of San Diego Priority Development Project (PDP) storm water requirements because it consists of a new bike and pedestrian trail that would direct storm water runoff to adjacent vegetated areas or other non-erodible permeable areas. As a result, the project is not required to include pollutant treatment or hydromodification controls. For details on how this determination was made please see Attachments 1 and 4.


Per City of San Diego requirements, PDP exempt projects are still required to comply with site design and source control BMP requirements as described in the City of San Diego Storm Water Standards Manual. The types of site design and source control measures that could be included in the proposed project are shown in Attachments 2 and 3.

CITY OF SANTEE STORM WATER REQUIREMENTS

The proposed project qualifies as exempt from City of Santee PDP storm water requirements because it consists of a new bike and pedestrian trail that would direct storm water runoff to adjacent vegetated areas or other non-erodible permeable areas. As a result, the project is not required to include pollutant treatment or hydromodification controls. For details on how this determination was made please see Attachment 5.

Per City of Santee requirements, PDP exempt projects are still required to comply with site design BMP requirements, source control BMP requirements, and prepare a Standard Development Project Storm Water Quality Management Plan. The types of site design and source control measures that could be included in the proposed project are shown in Attachments 6 and 7.

Prepared under the supervision of:



Samuel Waisbord, RCE 78071

Date: 12/21/2016



Attachment 1

City of San Diego Storm Water Requirements
Applicability Checklist (DS-560)



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

THE CITY OF SAN DIEGO

Storm Water Requirements Applicability Checklist

FORM
DS-560
 FEBRUARY 2016

Project Address: **SAN DIEGO RIVER TRAIL (SDRT) CARLTON OAKS GOLF COURSE SEGMENT**

Project Number (for City Use Only):

SECTION 1. Construction Storm Water BMP Requirements:

All construction sites are required to implement construction BMPs in accordance with the performance standards in the [Storm Water Standards Manual](#). Some sites are additionally required to obtain coverage under the State Construction General Permit (CGP)¹, which is administered by the State Water Resources Control Board.

For all project complete PART A: If project is required to submit a SWPPP or WPCP, continue to PART B.

PART A: Determine Construction Phase Storm Water Requirements.

1. Is the project subject to California's statewide General NPDES permit for Storm Water Discharges Associated with Construction Activities, also known as the State Construction General Permit (CGP)? (Typically projects with land disturbance greater than or equal to 1 acre.)

Yes; SWPPP required, skip questions 2-4 No; next question

2. Does the project propose construction or demolition activity, including but not limited to, clearing, grading, grubbing, excavation, or any other activity that results in ground disturbance and contact with storm water runoff?

Yes; WPCP required, skip 3-4 No; next question

3. Does the project propose routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility? (Projects such as pipeline/utility replacement)

Yes; WPCP required, skip 4 No; next question

4. Does the project only include the following Permit types listed below?

- Electrical Permit, Fire Alarm Permit, Fire Sprinkler Permit, Plumbing Permit, Sign Permit, Mechanical Permit, Spa Permit.
- Individual Right of Way Permits that exclusively include only ONE of the following activities: water service, sewer lateral, or utility service.
- Right of Way Permits with a project footprint less than 150 linear feet that exclusively include only ONE of the following activities: curb ramp, sidewalk and driveway apron replacement, pot holing, curb and gutter replacement, and retaining wall encroachments.

Yes; no document required

Check one of the boxes to the right, and continue to PART B:

If you checked "Yes" for question 1, **a SWPPP is REQUIRED. Continue to PART B**

If you checked "No" for question 1, and checked "Yes" for question 2 or 3, **a WPCP is REQUIRED.** If the project proposes less than 5,000 square feet of ground disturbance AND has less than a 5-foot elevation change over the entire project area, a Minor WPCP may be required instead. **Continue to PART B.**

If you checked "No" for all questions 1-3, and checked "Yes" for question 4 **PART B does not apply and no document is required. Continue to Section 2.**

1. More information on the City's construction BMP requirements as well as CGP requirements can be found at: www.sandiego.gov/stormwater/regulations/index.shtml

PART B: Determine Construction Site Priorit

This prioritization must be completed within this form, noted on the plans, and included in the SWPPP or WPCP. The city reserves the right to adjust the priority of projects both before and after construction. Construction projects are assigned an inspection frequency based on if the project has a “high threat to water quality.” The City has aligned the local definition of “high threat to water quality” to the risk determination approach of the State Construction General Permit (CGP). The CGP determines risk level based on project specific sediment risk and receiving water risk. Additional inspection is required for projects within the Areas of Special Biological Significance (ASBS) watershed. **NOTE:** The construction priority does **NOT** change construction BMP requirements that apply to projects; rather, it determines the frequency of inspections that will be conducted by city staff.

Complete PART B and continued to Section 2

- 1. **ASBS**
a. Projects located in the ASBS watershed.
- 2. **High Priority**
a. Projects 1 acre or more determined to be Risk Level 2 or Risk Level 3 per the Construction General Permit and not located in the ASBS watershed.
b. Projects 1 acre or more determined to be LUP Type 2 or LUP Type 3 per the Construction General Permit and not located in the ASBS watershed.
- 3. **Medium Priority**
a. Projects 1 acre or more but not subject to an ASBS or high priority designation.
b. Projects determined to be Risk Level 1 or LUP Type 1 per the Construction General Permit and not located in the ASBS watershed.
- 4. **Low Priority**
a. Projects requiring a Water Pollution Control Plan but not subject to ASBS, high, or medium priority designation.

SECTION 2. Permanent Storm Water BMP Requirements.

Additional information for determining the requirements is found in the [Storm Water Standards Manual](#).

PART C: Determine if Not Subject to Permanent Storm Water Requirements.

Projects that are considered maintenance, or otherwise not categorized as “new development projects” or “redevelopment projects” according to the [Storm Water Standards Manual](#) are not subject to Permanent Storm Water BMPs.

If “yes” is checked for any number in Part C, proceed to Part F and check “Not Subject to Permanent Storm Water BMP Requirements”.

If “no” is checked for all of the numbers in Part C continue to Part D.

- 1. Does the project only include interior remodels and/or is the project entirely within an existing enclosed structure and does not have the potential to contact storm water? Yes No
- 2. Does the project only include the construction of overhead or underground utilities without creating new impervious surfaces? Yes No
- 3. Does the project fall under routine maintenance? Examples include, but are not limited to: roof or exterior structure surface replacement, resurfacing or reconfiguring surface parking lots or existing roadways without expanding the impervious footprint, and routine replacement of damaged pavement (grinding, overlay, and pothole repair). Yes No

PART D: PDP Exempt Requirements.

PDP Exempt projects are required to implement site design and source control BMPs.

If “yes” was checked for any questions in Part D, continue to Part F and check the box labeled “PDP Exempt.”

If “no” was checked for all questions in Part D, continue to Part E.

1. Does the project ONLY include new or retrofit sidewalks, bicycle lanes, or trails that:
 - Are designed and constructed to direct storm water runoff to adjacent vegetated areas, or other non-erodible permeable areas? Or;
 - Are designed and constructed to be hydraulically disconnected from paved streets and roads? Or;
 - Are designed and constructed with permeable pavements or surfaces in accordance with the Green Streets guidance in the City’s Storm Water Standards manual?

Yes; PDP exempt requirements apply No; next question

2. Does the project ONLY include retrofitting or redeveloping existing paved alleys, streets or roads designed and constructed in accordance with the [Green Streets guidance in the City’s Storm Water Standards Manual?](#)

Yes; PDP exempt requirements apply No; project not exempt. PDP requirements apply

PART E: Determine if Project is a Priority Development Project (PDP).

Projects that match one of the definitions below are subject to additional requirements including preparation of a Storm Water Quality Management Plan (SWQMP).

If “yes” is checked for any number in PART E, continue to PART F.

If “no” is checked for every number in PART E, continue to PART F and check the box labeled “Standard Development Project”.

1. **New Development that creates 10,000 square feet or more of impervious surfaces collectively over the project site.** This includes commercial, industrial, residential, mixed-use, and public development projects on public or private land. Yes No

2. **Redevelopment project that creates and/or replaces 5,000 square feet or more of impervious surfaces on an existing site of 10,000 square feet or more of impervious surfaces.** This includes commercial, industrial, residential, mixed-use, and public development projects on public or private land. Yes No

3. **New development or redevelopment of a restaurant.** Facilities that sell prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC 5812), and where the land development creates and/or replace 5,000 square feet or more of impervious surface. Yes No

4. **New development or redevelopment on a hillside.** The project creates and/or replaces 5,000 square feet or more of impervious surface (collectively over the project site) and where the development will grade on any natural slope that is twenty-five percent or greater. Yes No

5. **New development or redevelopment of a parking lot that creates and/or replaces 5,000 square feet or more of impervious surface (collectively over the project site).** Yes No

6. **New development or redevelopment of streets, roads, highways, freeways, and driveways.** The project creates and/or replaces 5,000 square feet or more of impervious surface (collectively over the project site). Yes No

7. **New development or redevelopment discharging directly to an Environmentally Sensitive Area.** The project creates and/or replaces 2,500 square feet of impervious surface (collectively over project site), and discharges directly to an Environmentally Sensitive Area (ESA). “Discharging directly to” includes flow that is conveyed overland a distance of 200 feet or less from the project to the ESA, or conveyed in a pipe or open channel any distance as an isolated flow from the project to the ESA (i.e. not commingled with flows from adjacent lands). Yes No
8. **New development or redevelopment projects of a retail gasoline outlet (RGO) that create and/or replaces 5,000 square feet of impervious surface.** The development project meets the following criteria: (a) 5,000 square feet or more or (b) has a projected Average Daily Traffic (ADT) of 100 or more vehicles per day. Yes No
9. **New development or redevelopment projects of an automotive repair shops that creates and/or replaces 5,000 square feet or more of impervious surfaces.** Development projects categorized in any one of Standard Industrial Classification (SIC) codes 5013, 5014, 5541, 7532-7534, or 7536-7539. Yes No
10. **Other Pollutant Generating Project.** The project is not covered in the categories above, results in the disturbance of one or more acres of land and is expected to generate pollutants post construction, such as fertilizers and pesticides. This does not include projects creating less than 5,000 sf of impervious surface and where added landscaping does not require regular use of pesticides and fertilizers, such as slope stabilization using native plants. Calculation of the square footage of impervious surface need not include linear pathways that are for infrequent vehicle use, such as emergency maintenance access or bicycle pedestrian use, if they are built with pervious surfaces of if they sheet flow to surrounding pervious surfaces. Yes No

PART F: Select the appropriate category based on the outcomes of PART C through PART E.

1. The project is **NOT SUBJECT TO STORM WATER REQUIREMENTS.**
2. The project is a **STANDARD DEVELOPMENT PROJECT.** Site design and source control BMP requirements apply. See the [Storm Water Standards Manual](#) for guidance.
3. The project is **PDP EXEMPT.** Site design and source control BMP requirements apply. See the [Storm Water Standards Manual](#) for guidance.
4. The project is a **PRIORITY DEVELOPMENT PROJECT.** Site design, source control, and structural pollutant control BMP requirements apply. See the [Storm Water Standards Manual](#) for guidance on determining if project requires a hydromodification plan management

Name of Owner or Agent (Please Print):

Title:

Signature:

Date:

Attachment 2

City of San Diego Source Control BMP Checklist for
Standard Projects (Form I-4)

Appendix A: Submittal Templates

Source Control BMP Checklist for Standard Projects		Form I-4	
All development projects must implement source control BMPs SC-1 through SC-6 and. Refer to Chapter 4 and Appendix E of the BMP Design Manual for information to implement BMPs shown in this checklist.			
Note: All selected BMPs must be shown on the construction plans.			
Source Control Requirement		Applied ⁽¹⁾ ?	
SC-1 Prevention of Illicit Discharges into the MS4	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
SC-2 Storm Drain Stenciling or Signage	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
SC-3 Protect Outdoor Materials Storage Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
SC-4 Protect Materials Stored in Outdoor Work Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
SC-5 Protect Trash Storage Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
SC-6 BMPs based on Potential Sources of Runoff Pollutants			
On-site storm drain inlets	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Interior floor drains and elevator shaft sump pumps	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Interior parking garages	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Need for future indoor & structural pest control	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Landscape/Outdoor Pesticide Use	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Pools, spas, ponds, decorative fountains, and other water features	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Food service	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Refuse areas	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Industrial processes	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Outdoor storage of equipment or materials	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Vehicle/Equipment Repair and Maintenance	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Fuel Dispensing Areas	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Loading Docks	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Fire Sprinkler Test Water	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Miscellaneous Drain or Wash Water	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Plazas, sidewalks, and parking lots	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
SC-6A: Large Trash Generating Facilities	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
SC-6B: Animal Facilities	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
SC-6C: Plant Nurseries and Garden Centers	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
SC-6D: Automotive-related Uses	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Discussion / justification for <u>all</u> "No" answers shown above:			

Attachment 3

City of San Diego Site Design BMP Checklist for Standard
Project (Form I-5)

Appendix A: Submittal Templates

Site Design BMP Checklist for Standard Projects		Form I-5	
All development projects must implement site design BMPs SD-1 through SD-8. Refer to Chapter 4 and Appendix E of the BMP Design Manual for information to implement BMPs shown in this checklist.			
Note: All selected BMPs must be shown on the construction plans.			
Site Design Requirement		Applied ⁽¹⁾ ?	
SD-1 Maintain Natural Drainage Pathways and Hydrologic Features	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
SD-2 Conserve Natural Areas, Soils, and Vegetation	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
SD-3 Minimize Impervious Area	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
SD-4 Minimize Soil Compaction	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
SD-5 Impervious Area Dispersion	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
SD-6 Runoff Collection	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
SD-7 Landscaping with Native or Drought Tolerant Species	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
SD-8 Harvesting and Using Precipitation	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
Discussion / justification for all "No" answers shown above:			
<p>SD-8 - No feasible way to collect and hold runoff in a way that would be able to be used on the project site. Collection would also disturb natural drainage pathways.</p>			

⁽¹⁾ Answer for each source control and site design category shall be pursuant to the following:

- "Yes" means the project will implement the BMP as described in Chapter 4 and/or Appendix E of the BMP Design Manual. Discussion / justification is not required.
- "No" means the BMP is applicable to the project but it is not feasible to implement. Discussion / justification must be provided.
- "N/A" means the BMP is not applicable at the project site because the project does not include the feature that is addressed by the BMP (e.g., the project has no outdoor materials storage areas). Discussion / justification may be provided.

Attachment 4

City of San Diego Guidance for Qualifying for PDP
Exemption Category 1

J.1. Guidance for Qualifying for PDP Exemption Category 1

PDP Exemption Category 1 is defined in Section 1.4.3. This section provides technical guidance related to this exemption category, including sidewalks, bicycle lanes or paths that are:

1. Designed and constructed to direct storm water runoff to adjacent vegetated areas, or other non-erodible permeable areas (Appendix J.1.1); OR
2. Designed and constructed to be hydraulically disconnected from paved streets or roads (Appendix J.1.2); OR
3. Designed and constructed with permeable pavements or surfaces (Appendix J.1.3).

What does this exemption provide?

Where a project or portion of a project meets the criteria to be considered exempt, then pollutant treatment and hydromodification controls are not required. Additionally, this area should not be included in tabulation of the created, added, or replaced impervious surface.

What are the limitations?

In order to qualify for these exemptions, the exempted projects or areas of a project must meet the applicable criteria in the sections below. PDP exemptions are approved at the discretion of the City Engineer.

J.1.1 Guidance for Directing Storm Water into Vegetated or Non-Erodible Permeable Areas to Meet PDP Exemption Category 1

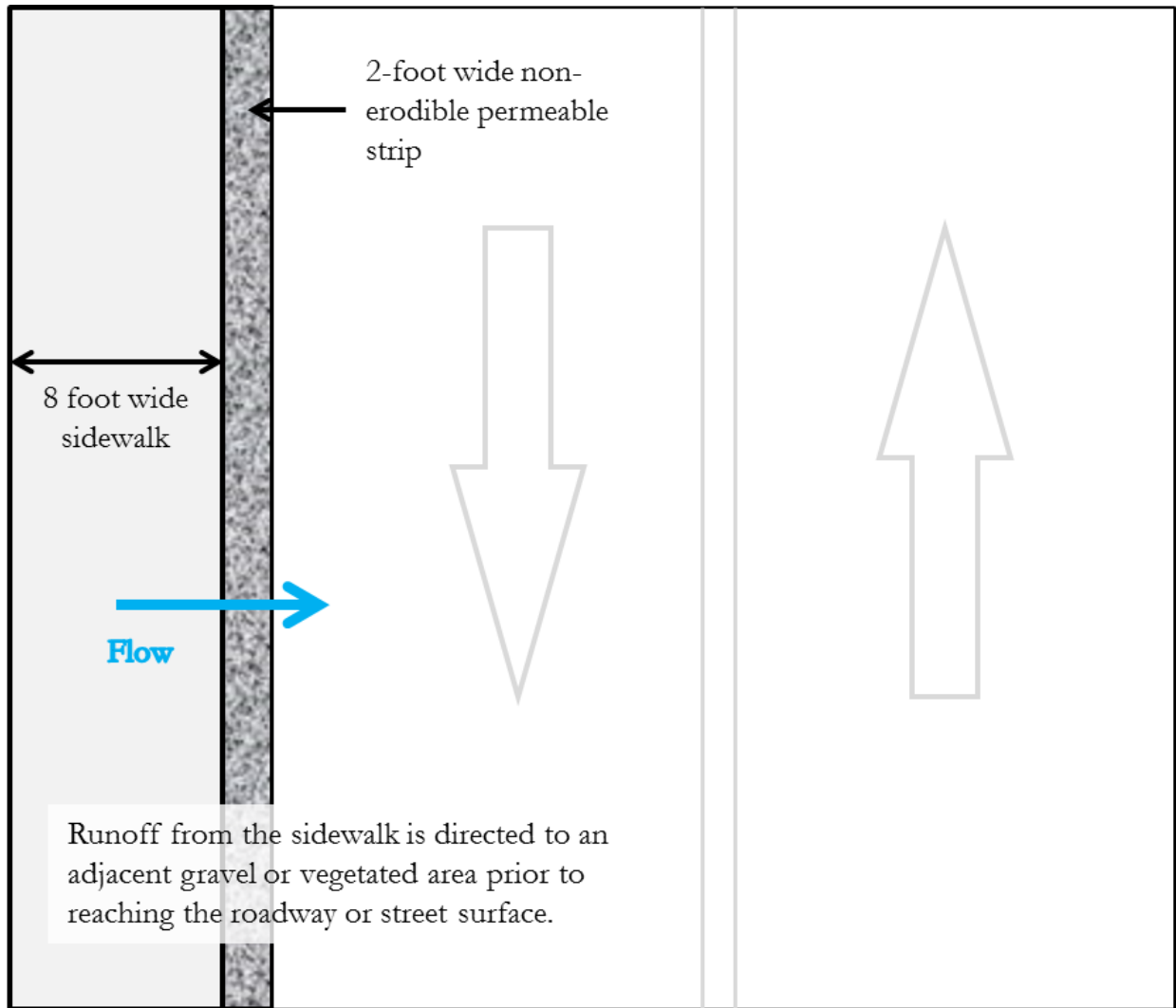
Routing storm water onto vegetated and non-erodible permeable areas can provide an opportunity for infiltration and/or evaporation to occur, particularly in smaller storms. However, the effectiveness of this approach is dependent on the loading ratio (i.e., how much area is routed onto a given permeable area) and whether the surface is resistant to erosion (i.e. shear stress). If loading ratios are too high and/or permeable surfaces are too unstable, this approach can create additional problems relative to erosion and sedimentation.

For the purpose of meeting the criteria of this exemption, one of two options, or equivalent, may be used:

- Satisfy the specifications outlined within the impervious dispersion (SD-5) factsheet, OR
- Route water into an open-graded gravel area greater than or equal to 1 inch diameter (Figure J.1-1), or other surface with similar permeability and resistance to shear stress. For this option, the loading ratio must be less or equal to 5:1 and the contributing path length of the impervious surface must have a maximum length of 20 feet. The sidewalk must be designed with the standard cross slope and the adjacent vegetated/non-erodible permeable area depressed by 2 inches.

The definition of non-erodible permeable surfaces does **NOT** include areas of loose gravel fill, mulch, sand, or soils, which are easily dislodged during sheet flow conditions.

Intent: A vegetated or non-erodible pervious surface must allow water to permeate into the subsurface layers and not be susceptible to erosion at the maximum hydraulic load rates and velocities expected to occur under large storm events, such as the 10-year storm event.



3

Figure J.1-1: Schematic of an all gravel non-erodible permeable area configuration (not to scale)

J.1.2 Guidance for Hydraulic Disconnection to Meet PDP Exemption Category 1

Hydraulic disconnection involves separating the storm water collected from the sidewalk, bicycle lane, and/or trail surface from the runoff collected from an adjacent paved street or roadway. If the surface runoff from the sidewalk, bicycle lane, and/or trail surfaces does not comeingle with street runoff on the ground surface and does not enter the same inlet as the street or roadway runoff, then this area can be considered exempt from PDP requirements. Figure J-2 and Figure J-3 provide examples of how this exemption could be achieved. Water is allowed to comeingle once it is in the storm drain pipe.

Intent: This exemption seeks to isolate the runoff generated from sidewalks, bicycle lanes, and trails that tend to be cleaner (i.e., less floatables and lower contaminant concentrations) as compared to their street and roadway counterparts. The exemption allows surface runoff from these surfaces to discharge untreated, as long as it does not comeingle with street or roadway surface water. In a case when the sidewalk, bicycle lane, or trail is expected to generate runoff with similar contaminant profiles as the adjacent street or roadway, the City Engineer may determine that it is not appropriate to grant this exemption.

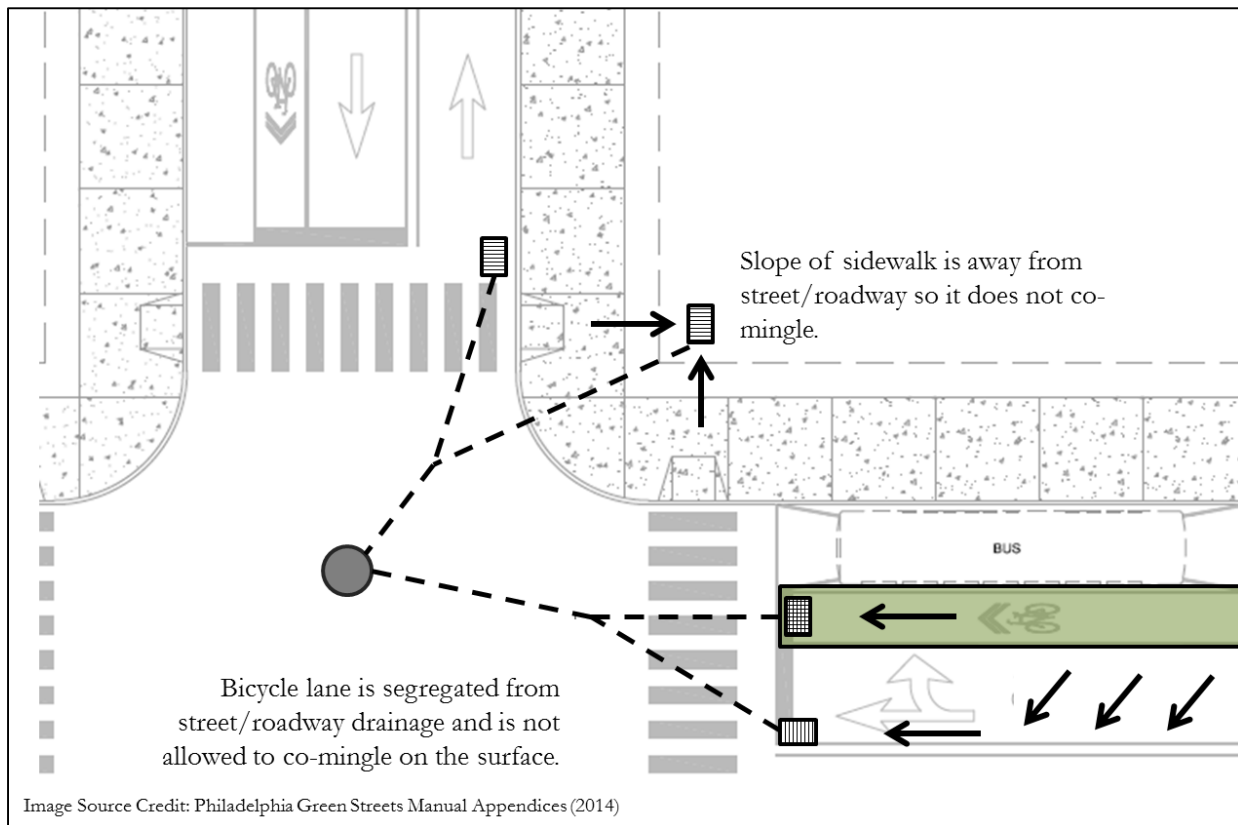


Figure J.1-2: Schematic showing hydraulic disconnection of sidewalks and bicycle lanes in a typical intersection.

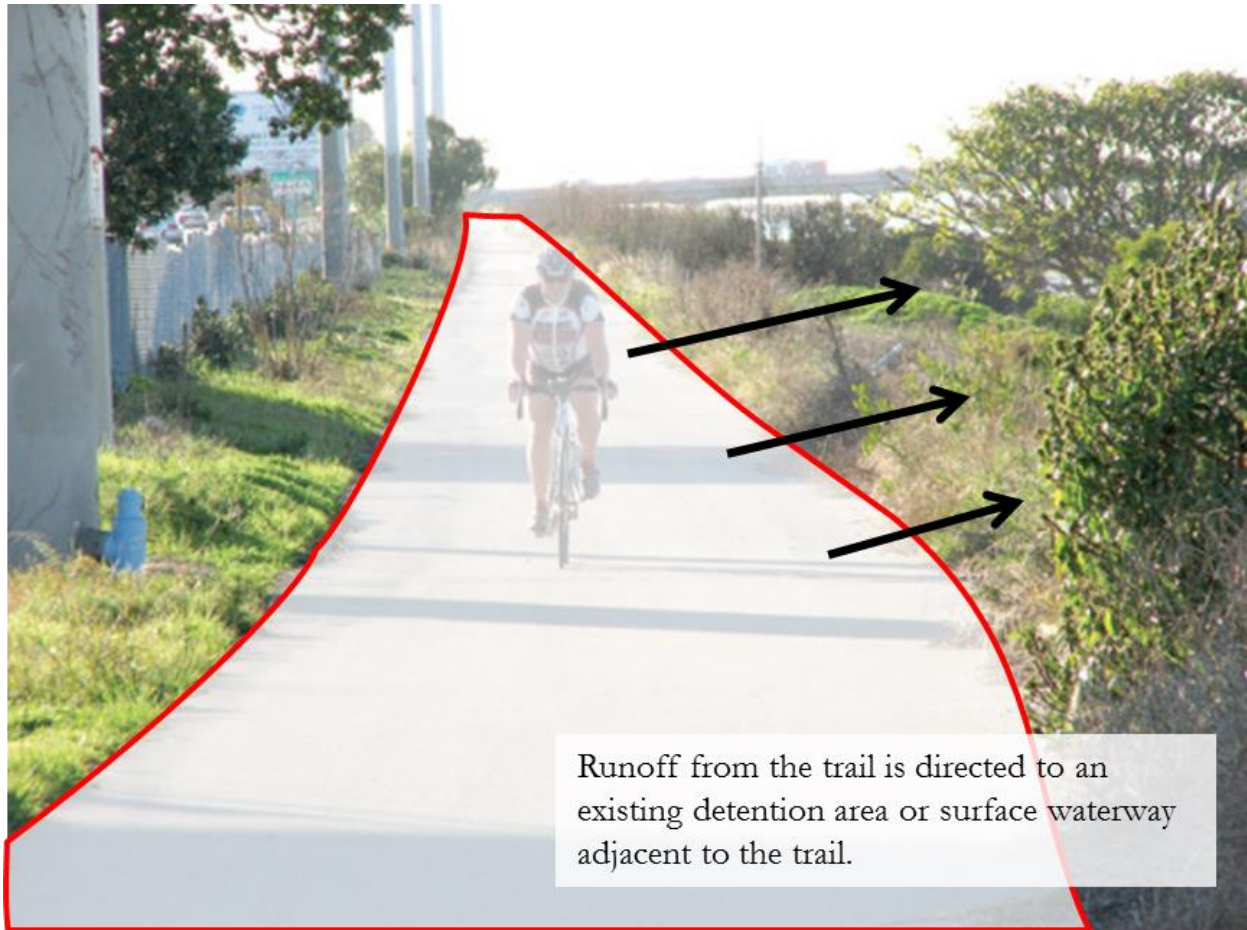


Image Source Credit: http://sdrc.ca.gov/photo_gallery.html

Figure J.1-3: Schematic of a trail where the runoff does not comingle with street or road runoff

Attachment 5

City of Santee Storm Water Intake Form

Storm Water Intake Form for All Permit Applications

Step 2: (continued)

- (c) New and redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface (collectively over the entire project site), and support one or more of the following uses:

Restaurants. This category is defined as a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (Standard Industrial Classification (SIC) code 5812).

- (ii) Hillside development projects. This category includes development on any natural slope that is twenty-five percent or greater.
- (iii) Parking lots. This category is defined as a land area or facility for the temporary parking or storage of motor vehicles used personally, for business, or for commerce.
- (iv) Streets, roads, highways, freeways, and driveways. This category is defined as any paved impervious surface used for the transportation of automobiles, trucks, motorcycles, and other vehicles.

Yes No

- (d) New or redevelopment projects that create and/or replace 2,500 square feet or more of impervious surface (collectively over the entire project site), and discharging directly to an Environmentally Sensitive Area (ESA). "Discharging directly to" includes flow that is conveyed overland a distance of 200 feet or less from the project to the ESA, or conveyed in a pipe or open channel any distance as an isolated flow from the project to the ESA (i.e. not commingled with flows from adjacent lands).

Note: ESAs are 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; and any other equivalent environmentally sensitive areas which have been identified by the Copermitttees. See BMP Design Manual Section 1.4.2 for additional guidance.

Yes No

- (e) New development projects, or redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface, that support one or more of the following uses:

- (i) Automotive repair shops. This category is defined as a facility that is categorized in any one of the following SIC codes: 5013, 5014, 5541, 7532-7534, or 7536-7539.
- (ii) Retail gasoline outlets (RGOs). This category includes RGOs that meet the following criteria: (a) 5,000 square feet or more or (b) a projected Average Daily Traffic (ADT) of 100 or more vehicles per day.

Yes No

- (f) New or redevelopment projects that result in the disturbance of one or more acres of land and are expected to generate pollutants post construction.

Note: See BMP Design Manual Section 1.4.2 for additional guidance.

Yes No

Does the project meet the definition of one or more of the Priority Development Project categories (a) through (f) listed above?

- Yes – the project is a Priority Development Project (PDP).
- No – the project is not a Priority Development Project (Standard Project).

Further guidance may be found in Chapter 1 and Table 1-2 of the BMP Design Manual.

Storm Water Intake Form for All Permit Applications

Step 2: (continued)

The following is for redevelopment PDPs only:

The area of existing (pre-project) impervious area at the project site is: _____ ft² (A)

The total proposed newly created or replaced impervious area is: _____ ft² (B)

Percent impervious surface created or replaced (B/A)*100: _____ %

The percent impervious surface created or replaced is (select one based on the above calculation):

less than or equal to fifty percent (50%) – **only newly created or replaced impervious areas are considered a PDP and subject to storm water requirements.**

OR

greater than fifty percent (50%) – **the entire project site is considered a PDP and subject to storm water requirements.**

Step 3: Storm Water Quality Management Plan Requirements

Is the project a Standard Project, Priority Development Project (PDP), or exception to PDP definitions?

To answer this item, complete the Project Type Determination Checklist on Pages 2 and 3 of this form, and see PDP exemption information below. *For further guidance, see Section 1.4 of the BMP Design Manual in its entirety.*

Standard Project: Standard Project requirements apply, including Standard Project SWQMP. **Complete Standard Project SWQMP.**

PDP: Standard and PDP requirements apply, including PDP SWQMP. **Go to Step 5 and Prepare a PDP SWQMP**

PDP Exemption: **Go to Step 4.**

Step 4: Exemption to PDP definitions

Is the project exempt from PDP definitions based on:

Projects that are only new or retrofit paved sidewalks, bicycle lanes, or trails that meet the following criteria:

(i) Designed and constructed to direct storm water runoff to adjacent vegetated areas, or other non-erodible permeable areas; OR

(ii) Designed and constructed to be hydraulically disconnected from paved streets or roads [i.e., runoff from the new improvement does not drain directly onto paved streets or roads]; OR

(iii) Designed and constructed with permeable pavements or surfaces in accordance with County of San Diego Guidance on Green Infrastructure;

If the project is exempt per the above condition, then SDP requirements apply, AND any additional requirements specific to the type of project. Note: City concurrence with any exemption is required. **Go to Step 7 and Prepare a SDP SWQMP.**

Storm Water Intake Form for All Permit Applications

Step 4: (continued)

If the project is claiming exemption under another condition, provide discussion / justification that demonstrates that the project is NOT a development project (i.e.: interior remodel only) and provide backup documentation if applicable. *Reference Section 1.3 of the BMP Design Manual.* Note: City concurrence with any exemption is required.

This project is considered to meet PDP Exemptions since the proposed trail includes bicycle lanes that direct runoff towards landscaped areas and is completely disconnected from any roadways.

Go to Step 7 and Prepare SDP SWQMP.

Step 5: Hydromodification Control (PDPs only)

Do hydromodification control requirements apply?

- Yes – Structural BMPs required for pollutant control (see Chapter 5), AND hydromodification control (see Chapter 6). **Go to Step 6.**
- No – Structural BMPs required for pollutant control. EXEMPT from hydromodification control (see Chapter 1.6)*. **Go to Step 7 and Prepare PDP SWQMP.**

* Justification for hydromodification exemption is required. Documentation must include drainage maps, photos, citations, and written explanation. This documentation will be included within the PDP SWQMP, Attachment 2.

Step 6: Critical Coarse Sediment (PDPs only)

Does protection of critical coarse sediment yield areas apply based on review of the WMAA Potential Critical Coarse Sediment Yield Area Map? See Section 6.2 of the BMP Design Manual for guidance.

- Yes – Management measures are required for the avoidance or protection of critical coarse sediment yield areas (see Chapter 6). **Go to Step 7 and Prepare PDP SWQMP.**
- No – Management measures are not required.* **Go to Step 7 and Prepare PDP SWQMP**

* If no management measures are required, provide brief discussion / justification demonstrating non-applicability.

[Click here to enter text.](#)

Storm Water Intake Form for All Permit Applications

Step 7: Certification

Applicant Certification: I have read and understand that the City of Santee has adopted minimum requirements for managing urban runoff, including storm water, from construction and land development activities, as described in the BMP Design Manual. **I certify that this intake form has been completed to the best of my ability and accurately reflects the project being proposed. I also understand that non-compliance with the City's Storm Water Ordinance and/or Grading Ordinance may result in enforcement by the City, including fines, cease and desist orders, or other actions as determined by the City's Enforcement Response Plan.**

Signature of Applicant: _____

Date: _____

Printed Name: _____

Attachment 6

City of Santee Source Control BMP Checklist (Form I-4)

Source Control BMP Checklist for All Development Projects (Standard Projects and PDPs)	Form I-4
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Project Identification

Project Name: **San Diego River Trail - Carlton Oaks Golf Course Segment** Date: **11/03/2016**

Project Address:

Permit Application Number:

Source Control BMPs

All development projects must implement source control BMPs SC-1 through SC-6 where applicable and feasible. See Chapter 4 and Appendix E of the manual for information to implement source control BMPs shown in this checklist.

Answer each category below pursuant to the following.

- "Yes" means the project will implement the source control BMP as described in Chapter 4 and/or Appendix E of the manual. Discussion / justification is not required.
- "No" means the BMP is applicable to the project but it is not feasible to implement. Discussion / justification must be provided.
- "N/A" means the BMP is not applicable at the project site because the project does not include the feature that is addressed by the BMP (e.g., the project has no outdoor materials storage areas). Discussion / justification may be provided.

Source Control Requirement	Applied?		
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SC-1 Prevention of Illicit Discharges into the MS4	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Discussion / justification if SC-1 not implemented:

SC-2 Storm Drain Stenciling or Signage	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
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Discussion / justification if SC-2 not implemented:

SC-3 Protect Outdoor Materials Storage Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Discussion / justification if SC-3 not implemented:

SC-4 Protect Materials Stored in Outdoor Work Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Discussion / justification if SC-4 not implemented:

Form I-4 Page 2 of 2			
Source Control Requirement	Applied?		
SC-5 Protect Trash Storage Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Discussion / justification if SC-5 not implemented:			
SC-6 Additional BMPs Based on Potential Sources of Runoff Pollutants (must answer for each source listed below)			
<input type="checkbox"/> Onsite storm drain inlets	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Interior floor drains and elevator shaft sump pumps	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Interior parking garages	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Need for future indoor & structural pest control	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Landscape/outdoor pesticide use	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
<input type="checkbox"/> Pools, spas, ponds, decorative fountains, and other water features	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Food service	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Refuse areas	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Industrial processes	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Outdoor storage of equipment or materials	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
<input type="checkbox"/> Vehicle and equipment cleaning	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
<input type="checkbox"/> Vehicle/equipment repair and maintenance	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Fuel dispensing areas	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Loading docks	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Fire sprinkler test water	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Miscellaneous drain or wash water	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Plazas, sidewalks, and parking lots	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Discussion / justification if SC-6 not implemented. Clearly identify which sources of runoff pollutants are discussed. Justification must be provided for <u>all</u> "No" answers shown above.			

Attachment 7

City of Santee Site Design BMP Checklist (Form I-5)

Site Design BMP Checklist for All Development Projects (Standard Projects and PDPs)	Form I-5
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Project Identification

Project Name **San Diego River Trail (SDRT) - Carlton Oaks Golf Course Segment**

Permit Application Number

Site Design BMPs

All development projects must implement site design BMPs SD-1 through SD-8 where applicable and feasible. See Chapter 4 and Appendix E of the manual for information to implement site design BMPs shown in this checklist.

Answer each category below pursuant to the following.

- "Yes" means the project will implement the site design BMP as described in Chapter 4 and/or Appendix E of the manual. Discussion / justification is not required.
- "No" means the BMP is applicable to the project but it is not feasible to implement. Discussion / justification must be provided.
- "N/A" means the BMP is not applicable at the project site because the project does not include the feature that is addressed by the BMP (e.g., the project site has no existing natural areas to conserve). Discussion / justification may be provided.

Site Design Requirement	Applied?		
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SD-1 Maintain Natural Drainage Pathways and Hydrologic Features	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Discussion / justification if SD-1 not implemented:

SD-2 Conserve Natural Areas, Soils, and Vegetation	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Discussion / justification if SD-2 not implemented:

SD-3 Minimize Impervious Area	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Discussion / justification if SD-3 not implemented:

SD-4 Minimize Soil Compaction	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Discussion / justification if SD-4 not implemented:

Site Design Requirement	Applied?		
SD-5 Impervious Area Dispersion	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Discussion / justification if SD-5 not implemented:			
SD-6 Runoff Collection	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Discussion / justification if SD-6 not implemented:			
SD-7 Landscaping with Native or Drought Tolerant Species	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Discussion / justification if SD-7 not implemented:			
SD-8 Harvesting and Using Precipitation	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
Discussion / justification if SD-8 not implemented: No feasible way to collect and hold runoff in a way that would be able to used on the project site. Collection would also disturb natural drainage pathways.			