County of San Diego

Stormwater Quality Management Plan (SWQMP)

For Priority Development Projects (PDPs)

Use for all PDPs (see Storm Water Intake Form, Part 4)

Priority Development Project

Project Information		Development type ☐ New development ☒ Redevelopment
Project Name	Cottonwood Sand Mining Project	
Project Address	3121 Willow Glen Road, El Cajon, CA 92019	
Assessor's Parcel # (APN)	506-021-19-00, 506-020-52-00, 518-012-13-00, 518-012-14-00, 518-030-05-00, 518-030-06-00 518-030-07-00, 518-030-08-00, 518-030-10-00, 518-030-12-00, 518-030-13-00, 518-030-15-00, 518-030-21-00, 518-030-22-00, 519-010-15-00, 519-010-17-00, 519-010-20-00, 519-010-21-00, 519-010-33-00, 519-010-34-00, 519-010-37-00, and 519-011-03-00	
Permit # / Record ID	PDS2018-MUP-18-023	
Project category (select one)	☐ Commercial	☐ Minor subdivision*
	☒ Industrial	☐ Major subdivision*
	☐ Single family residential lot	☐ Multi-family residential*
	*If residential, is a Homeowners Association (HOA) proposed? ☐ Yes ☐ No	

Project Applicant / Project Proponent		
Name	Cottonwood Cajon ES LLC	
Address	3121 Willow Glen Drive, El Cajon, CA 92019	
Phone	(619) 850-1399	**Email:** brice@bosslergroup.com

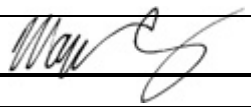
SWQMP Preparer		
Name	Wayne W. Chang	
Company (if applicable)	Chang Consultants	
Address	P.O. Box 9496	
Phone	(858) 692-0760	**Email:** wayne@changconsultants.com
PE Number (if applicable)	46548, Exp. 6/30/2025	

REGISTERED PROFESSIONAL ENGINEER
WAYNE W. CHANG
No. 46548
Exp. 6/30/25
CIVIL
STATE OF CALIFORNIA

Preparer's Certification

I understand that the County of San Diego has adopted minimum requirements for managing urban runoff, including storm water, from land development activities, as described in the County of San Diego BMP Design Manual. The BMP Design Manual is a design manual for compliance with local County of San Diego Watershed Protection Ordinance (Sections 67.801 et seq.) and regional MS4 Permit (California Regional Water Quality Control Board San Diego Region Order No. R9-2013-0001, as amended by Order No. R9-2015-0001 and Order No. R9-2015-0100) requirements for storm water management.

This SWQMP is intended to comply with applicable requirements of the BMP Design Manual. I certify that it has been completed to the best of my ability and accurately reflects the project being proposed and the applicable BMPs proposed to minimize the potentially negative impacts of this project's land development activities on water quality. I understand and acknowledge that the plan check review of this SWQMP by County staff is confined to a review and does not relieve me as the person in charge of overseeing the selection and design of storm water BMPs for this project, of my responsibilities for project design.

Signature  **Date** July 24, 2024

COUNTY ACCEPTED

County of San Diego

Stormwater Quality Management Plan (SWQMP)

For Priority Development Projects (PDPs)

Use for all PDPs (see Storm Water Intake Form, Part 4)

Priority Development Project

SWQMP Approved By:	*Approval Date*:
**** NOTE* Approval does not constitute compliance with regulatory requirements.***	

Scope of SWQMP Submittal (Required)

Select the option that describes the scope of this SWQMP Submittal. Document your selection as indicated.

SWQMP Scope	Required Documentation
☒ ***a. SWQMP addresses the entire project***	No additional documentation.
☐ ***b. SWQMP implements requirements of an earlier master SWQMP submittal***	Include a copy of the previous submittal as **Attachment 4**.
☐ ***c. First of multiple SWQMP submittals***	Identify below the elements addressed in this submittal and in future submittals.

(1) Elements addressed in current submittal (streets, common areas, first project phase, etc.):

(2) Elements to be addressed in future submittal(s) (individual lots, future project phases, etc.):

Submittal Record: List the dates of SWQMP and plan submittals and updates. Briefly describe key changes from previous versions. If responding to plan check comments, note this in the entry and attach the responses as applicable.

No.	Date	Summary of Changes
Preliminary Design / Planning / CEQA		
1	4/18/2023	Initial Submittal
2	5/30/2023	Second Submittal
3	6/20/2023	Third Submittal
No.	6/23/2023	Fourth Submittal
Final Design		
1	Date	Initial Submittal
2	Date	Summary of Change
3	Date	Summary of Change
No.	Date	Summary of Change
Plan Changes		
1	7/24/2024	Initial Submittal Revise approved 6/23/2023 SWQMP based on latest plans.
2	Date	Summary of Change
3	Date	Summary of Change
No.	Date	Summary of Change

PDP SWQMP Submittal Checklist

SWQMP Tables: All of the tables below must be completed.

SWQMP Attachments[1]: Use the checklist below to identify which attachments will be included with this submittal. Attachments with boxes already checked (☒) are required for all projects. The applicability of other attachments will be determined upon completing this form.

☒ Attachment 1: Storm Water Intake Form

☒ Attachment 2: DMA Exhibits and Construction Plan Sheets

☐ Attachment 3: Reserved for Future Use

☐ Attachment 4: Previous SWQMP Submittals

☒ Attachment 5: Existing Site and Drainage Description

☒ Attachment 6: Documentation of DMAs without Structural BMPs

☐ Attachment 7: Documentation of DMAs with Structural Pollutant Control BMPs

☐ Attachment 8: Documentation of DMAs with Structural Hydromodification Management BMPs

☒ Attachment 9: Management of Critical Coarse Sediment Yield Areas

☐ Attachment 10: BMP Installation Verification Form

☐ Attachment 11: BMP Maintenance Agreements and Plans

☐ Attachment 12: Documentation of Alternative Compliance Projects (ACPs)

After completing the remainder of this form, check the applicable SWQMP Attachment boxes to summarize your selections.

[1] All SWQMP Attachments are available at www.sandiego.gov/stormwater under the Development Resources tab, Submittal Templates.

Table 1 – Baseline BMPs for Existing and Proposed Site Features

A. BMPs for Existing Natural Site Features (See Fact Sheet BL-1)

1. Check the boxes below for each existing feature on the site.

2. Select the BMPs to be implemented for each identified feature. Explain why any BMP not selected is infeasible in Table 3.

	Conserve natural features (SD-G)	Provide buffers around waterbodies (SD-H)
☒ Natural waterbodies	☒	☐
☐ Natural storage reservoirs & drainage corridors	☐	---
☒ Natural areas, soils, & vegetation (incl. trees)	☒	---

B. BMPs for Common Impervious Outdoor Site Features (See Fact Sheet BL-2)

1. Check the boxes below for each proposed feature.

*2. Select the BMPs to be implemented for each proposed feature. If neither BMP **SD-B** nor **SD-I** is selected for a feature, explain why both BMPs are infeasible in Table 3.*

	a. Direct runoff to pervious areas (SD-B)	b. Construct surfaces from permeable materials (SD-I)	c. Minimize the size of impervious areas
☒ Streets and roads	☐	☒	☒ *Check this box to confirm that all impervious areas on the site will be minimized where feasible.*
☐ Sidewalks & walkways	☐	☐	
☒ Parking areas & lots	☐	☒	
☒ Driveways	☐	☒	*If this box is not checked, identify the surfaces that cannot be minimized in Table 3, and explain why it is infeasible to do so.*
☐ Patios, decks, & courtyards	☐	☐	
☐ Hardcourt recreation areas	☐	☐	
☐ Other:	☐	☐	

C. ☒ **BMPs for Rooftop Areas:** *Check this box if rooftop areas are proposed and select at least one BMP below.* **(See Fact Sheet BL-3)**

If no BMPs are selected, explain why they are infeasible in Table 3.

1. Direct runoff to pervious areas (SD-B)	2. Install green roofs (SD-C)	3. Install rain barrels (SD-E)
☒	☐	☐

D. ☒ **BMPs for Landscaped Areas:** *Check this box if landscaping is proposed and select at least one BMP below.* **(See Fact Sheet BL-4)**

If no BMPs are selected, explain why they are infeasible in Table 3.

1. Sustainable Landscaping (SD-K)
☒

Note: All features and BMPs must be shown on applicable construction plans. See applicable Fact Sheets in Appendix C of the BMP Design Manual for additional information.

Note: Use Table 3 to explain BMP infeasibility or inapplicability, or to describe features or BMPs not listed in this table. Additional explanation may be required by the County.

Table 2 – Baseline BMPs for Pollutant-generating Sources

☐ If this is a **Small Residential Project**, check this box and skip the rest of this table.

A. Management of Stormwater Discharges

1. Identify all proposed outdoor work areas below (☐ *Check here if none are proposed*)	**2. Which BMPs will be used to prevent materials from contacting rainfall or runoff?** **(See Fact Sheet BL-5)** *(Select all feasible BMPs for each work area[2])*			**3. Where will runoff from the work area be routed?** **(See Fact Sheet BL-6)** *(Select one or more option for each work area)*			
	Overhead covering (rooftops, etc.) (SC-A)	**Separation of flows from adjacent areas (berms, etc.) (SC-B)**	**Wind protection (screens, etc.) (SC-C)**	**Sanitary sewer[3] (SC-D)**	**Containment system (SC-E)**	**Stormwater S-BMP or SSD-BMP[4]**	**Other[5]**
☒ Trash & Refuse Storage	☒	☒	☐	☐	☒	☐	☐
☒ Materials & Equipment Storage	☒	☒	☐	☐	☒	☐	☐
☒ Loading & Unloading	☒	☒	---	☐	☒	☐	☐
☒ Fueling	☒	☒	---	☐	☒	☐	☐
☒ Maintenance & Repair	☒	☒	---	☐	☒	☐	☐
☒ Vehicle & Equipment Cleaning	☒	☒	---	☐	☒	☐	☐
☐ Other:	☐	☐	---	☐	☐	☐	☐

B. Prevention of Non-stormwater Discharges **(See Fact Sheet BL-7)**

Select one option for each feature below:

• **Storm drain inlets and catch basins …**	☒ are not proposed	☐ will be labeled with stenciling or signage to discourage dumping **(SC-F)**
• **Educational BMP Signage …**	☒ are not proposed	☐ will be labeled with educational signage for BMP **(SC-G)**
• **Interior work surfaces, floor drains, & sumps …**	☐ are not proposed	☒ will not discharge directly or indirectly to the MS4 or receiving waters
• **Drain lines (e.g., air conditioning, boiler, etc.) …**	☐ are not proposed	☒ will not discharge directly or indirectly to the MS4 or receiving waters
• **Fire sprinkler test water …**	☒ are not proposed	☐ will not discharge directly or indirectly to the MS4 or receiving waters

Note: All outdoor features and BMPs in this table must be shown on applicable construction plans. See applicable Fact Sheets in Appendix C of the BMP Design Manual for additional information.

Note: Use Table 3 to explain BMP infeasibility or inapplicability, or to describe features or BMPs not listed in this table. Additional explanation may be required by the County.

[2] Each BMP is required where feasible. If none are selected for any feature, explain why they are infeasible in Table 3.

[3] Separate wastewater agency approvals may be required.

[4] Structural Treatment Control BMPs (S-BMPs) and Significant Site Design BMPs (SSD-BMPs) may not receive discharges from work areas that concentrate pollutants in a manner that will impair their functioning. Discharges from the proposed work area must also be included in DCV calculations for the applicable BMP.

[5] Describe other proposed options for managing stormwater discharges in Table 3.

Table 3 – Explanations and Justifications for Table 1 and 2 Baseline BMPs

☒ **Check here if no explanations or justifications for Table 1 or 2 BMPs are required.**

- **Required Justifications**: Provide explanations of BMP inapplicability and/or infeasibility as indicated per Tables 1 and 2.
- **If Requested**: Justify why specific BMPs will not be implemented or will only be partially implemented.
- **Additional Explanation**: Describe any proposed features and/or BMPs not listed in Tables 1 or 2.

BMP-Feature Combination		**Explanation**
Feature	Feature	Explanation
BMP	BMP	
Feature	Feature	Explanation
BMP	BMP	
Feature	Feature	Explanation
BMP	BMP	
Feature	Feature	Explanation
BMP	BMP	
Feature	Feature	Explanation
BMP	BMP	
Feature	Feature	Explanation
BMP	BMP	
Feature	Feature	Explanation
BMP	BMP	

Table 4: DMA Structural Compliance Strategies and Documentation

Part A – Selection and Application Structural Performance Standards

1. Selection of Standards (select one; see BMPDM Section 6.1)

☐ a. Pollutant control + hydromodification ☐ b. Pollutant control only (project is exempt from hydromodification requirements)

2. Application of Structural Performance Standards (select one; see BMPDM Section 1.7)

☐ **New Development Projects:** Standards apply to <u>all impervious surfaces</u>.

☒ **Redevelopment Projects:** Complete the calculations below. Select <u>the</u> applicable scenario based on the results.

a. Existing impervious area (ft²)	b. Impervious area created / replaced (ft²)	c. % Impervious created / replaced [(b/a)*100]
198,774	83,561	42.0(inc. Willow Glen Dr)

☐ *Scenario 1: c is 50% or more*: Performance standards apply to all impervious surfaces (a + b).

☒ *Scenario 2: c is less than 50%*: Performance standards apply only to created or replaced impervious surfaces (b only).

Part B – Compliance Strategies and Required Attachments

1.*Complete and submit each of the applicable attachments on the right.*

Att. 1	Att. 2	Att. 3	Att. 4	Att. 5
Storm Water Intake Form ☒	DMA Exhibits and Construction Plan Sheets ☒	N/A ☐	Previous SWQMP Submittals (see inside cover) ☐	Existing Site and Drainage Description ☒

2. *Indicate each compliance strategy below that will be used for one or more DMAs on the site.*

	Att. 6 DMAs without Structural BMPs	Att. 7 DMAs w/ Structural Pollutant Control BMPs	Att. 8 DMAs w/ Structural Hydromod. BMPs	Att. 9 Critical Coarse Sediment Yield Areas	Att. 10 BMP Installation Verification Form	Att. 11 Maintenance Agreements/ Plans	Att. 12 Alternative Compliance Projects
☒Self-mitigating DMAs (BMPDM Section 5.2.1)	☒			☒			
☐De Minimis DMAs (BMPDM Section 5.2.2)	☐			☐			
☒Self-retaining DMAs (BMPDM Section 5.2.3)	☒			☒	☒		
<u>Structural BMPs (select all that apply)</u>							
☐Pollutant Control BMPs (BMPDM Section 5.4)		☐		☐	☐	☐	
☐Hydromodification Control BMPs (BMPDM Chapter 6)			☐	☐	☐	☐	
☐Alternative Compliance Project (BMPDM Section 1.8)				☐	☐	☐	☐

☒ **Please check this box after you complete this list. Corresponding attachments will be automatically selected on the right.**

- *Attachments 1, 2, and 5 are required for all projects.*

Table 5: Critical Coarse Sediment Yield Area (CCSYA) Requirements

- Identify one applicable compliance pathway for the PDP below.
- Document your selection in **Attachment 9**.

A. Hydromodification Management Exemption (BMPDM Sections 1.6 and 6.1)

☐ **PDP is Exempt from Hydromodification Management Requirements**

Select if hydromodification management exemption was selected in Table 4 Part A.1.

B. Watershed Management Area (WMAA) Mapping (BMPDM Appendix H.1.1.2)

☒ **WMAA mapping demonstrates the following:**

a. <5% of potential onsite CCYSAs will be impacted (built on or obstructed)

b. All potential upstream offsite CCYSAs will be bypassed

C. Resource Protection Ordinance (RPO) Methods (BMPDM Appendix H.1.1.1)

☐ **RPO Scenario 1: PDP is subject to and in compliance with RPO requirements**

a. Project requires one or more discretionary permits (RPO applicability is confirmed during discretionary review)

b. Onsite AND upstream offsite CCSYAs will be avoided and/or bypassed

☐ **RPO Scenario 2: PDP is entirely exempt/not subject to RPO requirements**[6]

a. Project does not require discretionary permits

b. Project will bypass all upstream offsite CCSYAs (no requirements for onsite CCSYAs)

D. No Net Impact Analysis (BMPDM Appendix H.4)

☐ **Project demonstrates no net impact to receiving waters**

[6] Does not include PDPs utilizing exemption(s) via RPO Section 86.604(e)(2)(cc) or 86.604(e)(3).

Table 6 –Minimum Construction Stormwater BMPs

Minimum Required BMPs by Activity Type Select all applicable activities and at least one BMP for each.	References Caltrans[7]	 County of San Diego	
☒ **Erosion Control for Disturbed Slopes** (choose at least 1 per season)			
☒ Vegetation Stabilization Planting[8] (Summer)	SS-2, SS-4		
☒ Hydraulic Stabilization Hydroseeding (Summer)	SS-4		
☒ Bonded Fiber Matrix or Stabilized Fiber Matrix[9] (Winter)	SS-3		
☒ Physical Stabilization Erosion Control Blanket (Winter)	SS-7		
☒ **Erosion control for disturbed flat areas (slope < 5%)**			
☐ County Standard Lot Perimeter Protection Detail	SC-2	PDS 659[10]	
☒ Use of Item A erosion control measures on flat areas	SS-3, SS-4, SS-7		
☐ County Standard Desilting Basin (must treat all site runoff)	SC-2	PDS 660[11]	
☒ Mulch, straw, wood chips, soil application	SS-6, SS-8		
☒ **Energy dissipation (required to control velocity for concentrated runoff or dewatering discharge)**			
☒ Energy Dissipater Outlet Protection	SS-10	RSD D-40[12]	
☒ **Sediment control for all disturbed areas**			
☒ Silt Fence	SC-1		
☒ Fiber Rolls (Straw Wattles)	SC-5		
☒ Gravel & Sand Bags	SC-6, SC-8		
☐ Dewatering Filtration	NS-2		
☐ Storm Drain Inlet Protection	SC-10		
☐ Engineered Desilting Basin (sized for 10-year flow)	SC-2		
☒ **Preventing offsite tracking of sediment**			
☒ Stabilized Construction Entrance	TC-1		
☐ Construction Road Stabilization	TC-2		
☒ Entrance/Exit Tire Wash	TC-3		
☒ Entrance/Exit Inspection & Cleaning Facility	TC-1		
☒ Street Sweeping and Vacuuming	SC-7		
☒ **Materials Management**			
☒ Material Delivery & Storage	WM-1		
☒ Spill Prevention and Control	WM-4		
☒ **Waste Management[13]**			
☒ Waste Management Concrete Waste Management	WM-8		
☒ Solid Waste Management	WM-5		
☒ Sanitary Waste Management	WM-9		
☐ Hazardous Waste Management	WM-6		

[7] See Caltrans 2017 Construction Site Best Management Practices (BMP) Manual available at: https://dot.ca.gov/programs/construction/storm-water-and-water-pollution-control/manuals-and-handbooks
[8] Planting or Hydroseeding may be installed between May 1st and August 15th. Slope irrigation must be in place and operable for slopes >3 feet. Vegetation must be watered and established prior to October 1st. A contingency physical BMP must be implemented by August 15th if vegetation is not established by that date. If landscaping is proposed, erosion control measures must also be used while landscaping is being established. Established vegetation must have a subsurface mat of intertwined mature roots with a uniform vegetative coverage of 70 percent of the natural vegetative coverage or more on all disturbed areas.
[9] All slopes over three feet must have established vegetative cover prior to final permit approval.
[10] County PDS 659. Standard Lot Perimeter Protection Design System (Bldg. Division)
[11] County PDS 660. County Standard Desilting Basin for Disturbed Areas of 1 Acre or Less Bldg. Division
[12] Regional Standard Drawing D-40 – Rip Rap Energy Dissipater (also acceptable for velocity reduction)
[13] Applicants are responsible to apply appropriate BMPs for specific wastes (e.g., BMP WM-8 for concrete).

Table 7 – Explanations and Justifications for Construction Phase BMPs

☒ **Check here if no explanations or justifications for Table 6 BMPs are required.**		
Justifications for Table 6 Temporary Construction Phase BMPs • **Required Justifications**: Justify all construction activity types for which NO BMPs were selected. • **If Requested**: Justify why specific individual BMPs were not selected. • **Additional Explanation**: Describe any proposed features and/or BMPs not listed in Table 6.		
Activity Type / BMP		**Explanation**
Activity Type	Activity Type	Explanation
BMP	BMP	
Activity Type	Activity Type	Explanation
BMP	BMP	
Activity Type	Activity Type	Explanation
BMP	BMP	
Activity Type	Activity Type	Explanation
BMP	BMP	
Activity Type	Activity Type	Explanation
BMP	BMP	
Activity Type	Activity Type	Explanation
BMP	BMP	
Activity Type	Activity Type	Explanation
BMP	BMP	

County of San Diego
Stormwater Quality Management Plan (SWQMP)
Attachment 1: Storm Water Intake Form for All Permit Applications

This form establishes Stormwater Quality Management Plan (SWQMP) requirements for Development Projects per Sections 67.809 and 67.811 of the County of San Diego Watershed Protection Ordinance (WPO). See ***Storm Water Intake Form Instructions*** for additional guidance and explanation of terms.

Part 1. Project Information	
Project Name:	Cottonwood Sand Mining Project
Record ID (Permit) No(s):	PDS2018-MUP-18-023
Assessor's Parcel No(s):	506-021-19-00, 506-020-52-00, 518-012-13-00, 518-012-14-00, etc.
Street Address (or Intersection):	3121 Willow Glen Road
City, State, Zip:	El Cajon, CA 92019

Part 2. Applicant / Project Proponent Information	
Name:	Brice Bossler
Company:	Cottonwood Cajon ES LLC
Street Address:	3121 Willow Glen Drive
City, State, Zip:	El Cajon, CA 92019
Phone Number	(619) 850-1399
Email:	gbrown@nwinvestmentinc.com

Part 3. Required Information for All Development Projects

Ⓐ	**1. Existing (pre-development) impervious surfaces (ft²)**	**2. Created or replaced impervious surfaces (ft²)**	**3. Total disturbed area (acres or ft²)**
	198,774	83,561	182.58 acres

Ⓑ	☐ Check here and provide a WDID# if this project is subject to the California Construction General Permit (Order No. 2009-0009-DWQ)[1]	**WDID # (if issued)**

For County Use Only	Reviewed By:	Review Date:
☐ Standard SWQMP	☐ PDP SWQMP	☐ Green Streets PDP Exemption SWQMP

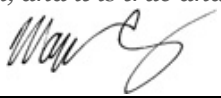
[1] Available at: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html

Part 4. Priority Classification & SWQMP Form Selection

Ⓐ *If your project is the following … (select one)*	Ⓑ *You must complete …*
☐ **Standard Project** ☐ a. Project is East of the Pacific/Salton Sea Divide ☐ b. None of the PDP criteria below applies	➔ **Standard *SWQMP Form***
☒ **Priority Development Project (PDP)** ☐ 1. Project is part of an existing PDP**,** <u>OR</u> ☒ 2. Project does any of the following: ☒ a. Creates or replaces a total of 10,000 ft² or more of impervious surface ☐ b. Creates or replaces a combined total of 5,000 ft² or more of impervious surface within one or more of the following uses: (1) parking lots; (2) streets, roads, highways, freeways, and/or driveways; (3) restaurants; and (4) hillsides ☐ c. Creates or replaces a combined total of 5,000 ft² or more of impervious surface within one or more of the following uses: (1) automotive repair shops; and (2) retail gasoline outlets ☒ d. Discharges directly to an Environmentally Sensitive Area (ESA) AND creates or replaces 2,500 ft² or more of impervious surface ☒ e. Disturbs one or more acres of land (43,560 ft²) and is expected to generate pollutants post-construction ☒ f. Is a <u>redevelopment</u> project that creates or replaces 5,000 ft² or more of impervious surface on a site already having at least 10,000 ft² of impervious surface	➔ **PDP *SWQMP Form***
☐ **Green Streets PDP Exemption[2]**	➔ **Green *Streets PDP Exemption SWQMP Form***

Part 5. Applicant Signature

I have reviewed the information in this form, and it is true and correct to the best of my knowledge.

Applicant / Project Proponent Signature: 

Date: 7/24/2024

- ***Upon completion*** *submit this form to the County.*
- ***If requested****, attach supporting documentation to justify selections made or exemptions claimed.*
- ***If this is a PDP that is part of a larger existing PDP****, you will be required to attach a copy of the existing SWQMP to the newer SWQMP submittal.*

[2] ***Green Streets PDP Exemption Projects*** are those claiming exemption from PDP classification per WPO Section 67.811(b)(2) because they consist exclusively of *either* 1) development of new sidewalks, bike lanes, and/or trails; *or* 2) improvements to existing roads, sidewalks, bike lanes, and/or trails.

2.0 General Requirements

- Attachment 2 consolidates exhibits and plans required for the entire project.
- Complete the table below to indicate which sub-attachments are included with the submittal. Sub-attachments that are not applicable can be excluded from the submittal.
- Unless otherwise stated, features and BMPs identified and described in each corresponding Attachment (6 through 9) must be shown on applicable DMA Exhibits and construction plans submitted for the project.

Sub-attachments	Requirement
☒ **2.1: DMA Exhibits**	All PDPs
☐ **2.2: Individual Structural BMP DMA Mapbook**	PDPs with structural BMPs
☒ **2.3: Construction Plan Sets**	All projects

2.1 DMA Exhibits

- DMA Exhibits must show all DMAs on the project site. Exhibits must include all applicable features identified in applicable SWQMP attachments.
- Exhibits may be prepared individually for the BMPs associated with each applicable SWQMP Attachment (6, 7, 8, and/or 9) or combined into one or more consolidated exhibits.
- Use this checklist to ensure required information is included on each exhibit (copy as needed).

DMA Exhibit ID #:	**1**
A. Features required for all exhibits	
1. Existing Site Features	
☒ Underlying hydrologic soil group (A, B, C, D)	☒ Topography and impervious areas
☒ Approximate depth to groundwater	☒ Existing drainage network, directions, and offsite connections
☒ Natural hydrologic features	
2. Drainage Management Area (DMA) Information	
☒ Proposed drainage network, directions, and offsite connections	☒ DMA boundaries, ID numbers, areas, and type (structural BMP, de minimis, etc.)
3. Proposed Site Changes, Features, and BMPs	
☒ Proposed demolition and grading	☒ Construction BMPs[2]
☒ Group 1, 2, and 3 Features[1]	☒ Baseline source control BMPs
☐ Group 4 Features	☐ Baseline source control BMPs
B. Proposed Features and BMPs Specific to Individual SWQMP Attachments[3]	
☒ Attachment 6	☐ SSD-BMP impervious dispersion areas ☒ SSD-BMP tree wells
☐ Attachment 7	☐ Structural pollutant control BMPs
☐ Attachment 8	☐ Structural hydromodification management BMPs ☐ Point(s) of Compliance (POC) for hydromodification management ☐ Proposed drainage boundary and drainage area to each POC
☒ Attachment 9	☐ Onsite CCSYAs ☐ Bypass of onsite CCSYAs ☒ Bypass of upstream offsite CCSYAs

[1] Group 1-4 features and baseline BMPs from PDP SWQMP Tables 2 and 3.
[2] Minimum Construction Stormwater BMPs from PDP SWQMP Table 7.
[3] Identify the location, ID numbers, type, and size/detail of BMPs.

DMA	Phase	Area, ac	Imp/Semi-Perv Area, sf	Notes
1A	1	0.92	14,213	Impervious area from Willow Glen Drive widening. Four tree wells will treat storm runoff.
1B	1	8.65	8,472	Impervious area from driveway, scale house, scale, and two storage containers. Storm water will be harvested and reused on-site.
1C	1	16.93	13,427	Impervious area from grouted riprap drop structure (1.8% of DMA). Meets requirements per notes below.
1D	1	22.19	8,876	Impervious area from grouted riprap drop structure (0.9% of DMA). Meets requirements per notes below.
1E	1	22.28	2,468 (semi-pervious) 683 (impervious)	Semi-pervious temporary DG road for access from Willow Glen Drive. Self-retaining via SSD, SD-B, impervious area dispersion. Impervious driveway from Willow Glen Drive. Meets requirements per notes below.
2A	2	6.13	0	No impervious area.
2B	2	37.07	13,477 (semi-pervious)	Semi-pervious DG road to extend access from existing DG road from the south project entrance. Self-retaining (SSD, SD-B)
3A	3	49.75	37,891	Impervious area from grouted riprap drop structure (1.8% of DMA). Meets requirements per notes below.
3B	3	18.67	0	No impervious area.
Total	1-3	182.58	15,945 (semi-pervious) 83,561 (impervious)	

THE 182.58 ACRES REPRESENTS THE OVERALL AREA DISTURBED BY THE MINING ACTIVITIES AND THE WILLOW GLEN DRIVE IMPROVEMENTS. DMAS HAVE BEEN DELINEATED OVER THESE DISTURBANCE AREAS. THE OVERALL MINING PHASES COVER 214.4 ACRES AND INCLUDE SURROUNDING BUFFER AREAS ASSOCIATED WITH THE PROJECT THAT WILL NOT BE DISTURBED BY MINING. SEE SHEET 2 FOR DMA 1A DETAILS (WILLOW GLEN DRIVE), SHEET 3 FOR DMA 1B DETAILS (PLANT SITE – INCLUDED ON THIS TABLE FOR REFERENCE), AND SHEET 4 FOR THE POST–MINING (RECLAMATION) AREAS.

DMA SUMMARY TABLE FOR MINING AND WILLOW GLEN DRIVE IMPROVEMENTS

MINING DMA NOTES

THE MINING EXTRACTION IS COVERED BY THE INDUSTRIAL GENERAL PERMIT AND MS4 REQUIREMENTS. THE CONSTRUCTION GENERAL PERMIT MAY APPLY DURING PRE–MINING SITE PREPARATION. DMAs 1C, 1D, 1E, 2A, 2B, 3A, AND 3B COVER THE MINING DISTURBANCE AREAS PER PHASE. SEE SHEET 2 FOR WILLOW GLEN DRIVE, SHEET 3 FOR THE MINE PLANT, AND SHEET 4 FOR THE POST–MINING DMAs. THE PROJECT HAS TWO POCs THAT ARE ALONG THE SWEETWATER RIVER. POC EAST IS WHERE SWEETWATER RIVER MEETS STEELE CANYON ROAD. POC WEST IS WHERE THE SWEETWATER RIVER EXITS THE SITE. THE POCs ARE IDENTICAL FOR PRE– AND POST–PROJECT CONDITIONS. THE POCs ARE ASSOCIATED WITH THEIR UPSTREAM DRAINAGE AREAS TRIBUTARY TO THE SWEETWATER RIVER. THE PRE– AND POST–PROJECT DRAINAGE AREAS AT EACH POC ARE THE SAME.

MINING SELF–MITIGATING AREAS

DMAs 1C, 1D, 1E, 2A, 2B, 3A, AND 3B ARE CLASSIFIED AS SELF–MITIGATING AREAS. THE SELF–MITIGATING REQUIREMENTS ARE MET AS FOLLOWS:

THESE DMAs ARE EITHER 100 OR NEAR 100 PERCENT PERVIOUS. THE DISTURBED AREAS WILL BE REVEGETATED WITH NATIVE, DROUGHT–TOLERANT PLANTS CONSISTING OF RIPARIAN SCRUB, A FOREST REHABILITATION PLANT PALETTE, RIPARIAN FOREST, EMERGENT WETLAND, OR EROSION CONTROL SEED MIX. PLANT SPECIES USED IN THE REVEGETATION EFFORT WILL BE CAPABLE OF SELF–REGENERATION WITHOUT CONTINUED DEPENDENCE ON IRRIGATION, SOIL AMENDMENTS, FERTILIZER, OR PESTICIDES.

THE SOILS WILL BE NATIVE TOPSOILS OR SOILS OBTAINED FROM THE MINING OPERATIONS. THE SOILS MUST BE AMENDED AND AERATED TO PROMOTE WATER RETENTION EQUIVALENT TO NATIVE TOPSOIL. SINCE THE SITE WILL ULTIMATELY PRIMARILY PROVIDE SWEETWATER RIVER RESTORATION, SOIL COMPACTION REQUIREMENTS WILL BE MINIMIZED.

PER THE TABLE ABOVE, THE INCIDENTIAL IMPERVIOUS AREAS ARE LESS THAN 5 PERCENT. STORM RUNOFF FROM THESE AREAS WILL BE ALLOWED TO SHEET FLOW OVER THE NATURAL RECEIVING SURFACE TO PROMOTE DISPERSION,

THE IMPERVIOUS AREAS ARE STANDALONE, ISOLATED AREAS NOT HYDRAULICALLY CONNECTED TO OTHER IMPERVIOUS AREAS.

THERE ARE NO PERMANENT STORM WATER CONTROL BMPs FOR THE MINING AREAS.

THE SELF–MITIGATING AREAS DO NOT CONTRIBUTE RUNOFF TO FLOW CONTROL POCs. THE RUNOFF ENTERS THE SWEETWATER RIVER AND REACHES ONE OF THE TWO POCs SIMILAR TO PRE–PROJECT CONDITIONS, SO RUNOFF IS NOT CONCENTRATED AT NEW LOCATIONS. THE DRAINAGE AREA TRIBUTARY TO THE SWEETWATER RIVER IS MAINTAINED BY THE PROJECT.

MINING SELF–RETAINING AREAS

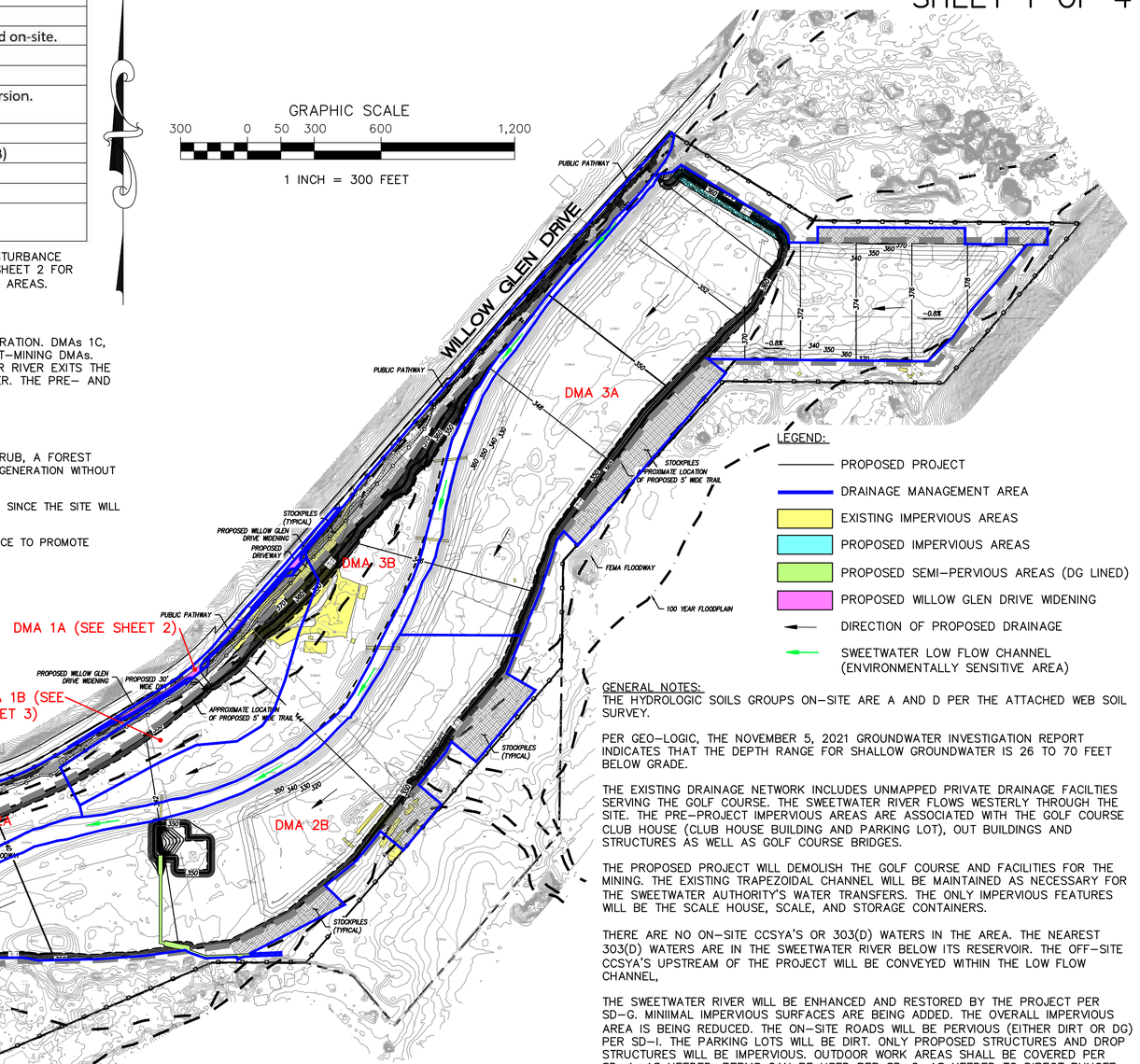
THE DG ROADS ARE SEMI–PERVIOUS SURFACES THAT WILL MEET SSD–BMP DISPERSION REQUIREMENTS PER FACT SHEET SD–B. THERE IS A 12–FOOT WIDE ROAD TO THE SITE FROM THE WESTERLY DRIVEWAY FROM WILLOW GLEN DRIVE. THERE IS ANOTHER MINIMUM 12–FOOT WIDE ROADWAY TO THE SITE AND EXISTING SDG&E TOWER FROM AN EXISTING SOUTHERLY ENTRANCE. THE SOUTHERLY END OF THIS ROAD CONNECTS TO THE NORTHERLY END OF AN EXISTING GRAVEL ROAD. THE ADJACENT DISPERSION AREAS TO BOTH ROADS ARE ENTIRELY PERVIOUS FOR A LARGE DISTANCE. THERE WILL BE NO IMPERVIOUS SURFACE FLOWING TO THE SEMI–PERVIOUS DG ROADS. THE DG ROADS SHALL BE GRADED TO SHEET FLOW OVER THE ADJACENT DISPERSION AREA. THE DISPERSION AREA SHALL BE AT LEAST 10 FEET WIDE AND AT LESS THAN 5 PERCENT SLOPE. THE TOP 11 INCHES OF SOIL IN THE DISPERSION AREA WILL BE AMENDED PER FACT SHEET SD–F.

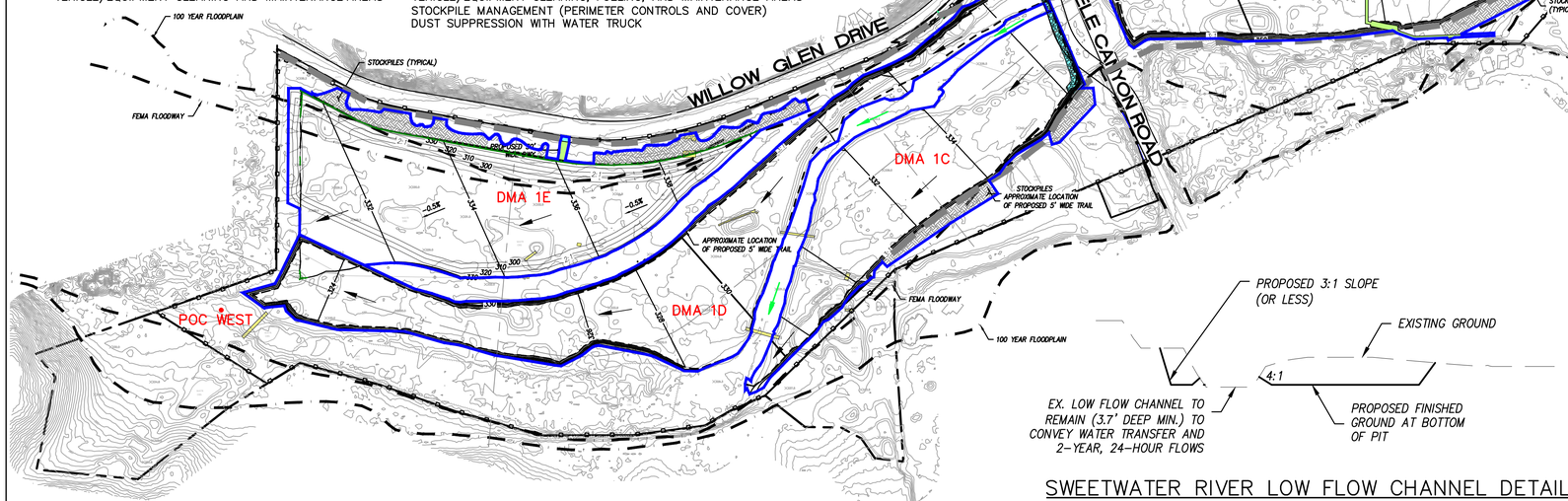
BEST MANAGEMENT PRACTICES

THE MINING EXTRACTION SHOWN ON THIS SHEET WILL BE COVERED BY THE INDUSTRIAL GENERAL PERMIT. DEMOLITION, CLEARING, GRUBBING, AND MINOR GRADING WILL PRECEDE MINING IN SOME AREAS AND WILL BE UNDER THE CONSTRUCTION GENERAL PERMIT. THE FOLLOWING IDENTIFIES CONSTRUCTION AND INDUSTRIAL BMPS THAT CAN BE USED. THE MINING AND CONSTRUCTION BMPS WILL BE SPECIFICALLY ADDRESSED BY THE CONSTRUCTION AND INDUSTRIAL SWPPPS, RESPECTIVELY, AND IMPLEMENTED BY THE CONTRACTOR AND/OR OPERATOR.

CONSTRUCTION BMPS:
- SILT FENCING, FIBER ROLLS, GRAVEL BAGS
- HYDROSEEDING, MULCH, GEOTEXTILES
- STABILIZED CONSTRUCTION ENTRANCE
- ENTRANCE/OUTLET TIRE WASH
- STREET SWEEPING
- DESILTING BASIN
- VEHICLE/EQUIPMENT CLEANING AND MAINTENANCE AREAS

INDUSTRIAL BMPS:
- SILT FENCING, FIBER ROLLS, GRAVEL BAGS
- HYDROSEEDING, MULCH, GEOTEXTILES, LANDSCAPING
- SITE ENTRANCE/EXIT TRACKOUT CONTROLS (RUMBLE STRIP, GRATES, MATS, ETC.)
- ENTRANCE/OUTLET TIRE WASH
- STREET SWEEPING
- DESILTING BASIN
- VEHICLE/EQUIPMENT CLEANING, FUELING, AND MAINTENANCE AREAS
- STOCKPILE MANAGEMENT (PERIMETER CONTROLS AND COVER)
- DUST SUPPRESSION WITH WATER TRUCK





SWEETWATER RIVER LOW FLOW CHANNEL DETAIL
NO SCALE

GENERAL NOTES:

THE HYDROLOGIC SOILS GROUPS ON–SITE ARE A AND D PER THE ATTACHED WEB SOIL SURVEY.

PER GEO–LOGIC, THE NOVEMBER 5, 2021 GROUNDWATER INVESTIGATION REPORT INDICATES THAT THE DEPTH RANGE FOR SHALLOW GROUNDWATER IS 26 TO 70 FEET BELOW GRADE.

THE EXISTING DRAINAGE NETWORK INCLUDES UNMAPPED PRIVATE DRAINAGE FACILTIES SERVING THE GOLF COURSE. THE SWEETWATER RIVER FLOWS WESTERLY THROUGH THE SITE. THE PRE–PROJECT IMPERVIOUS AREAS ARE ASSOCIATED WITH THE GOLF COURSE CLUB HOUSE (CLUB HOUSE BUILDING AND PARKING LOT), OUT BUILDINGS AND STRUCTURES AS WELL AS GOLF COURSE BRIDGES.

THE PROPOSED PROJECT WILL DEMOLISH THE GOLF COURSE AND FACILITIES FOR THE MINING. THE EXISTING TRAPEZOIDAL CHANNEL WILL BE MAINTAINED AS NECESSARY FOR THE SWEETWATER AUTHORITY'S WATER TRANSFERS. THE ONLY IMPERVIOUS FEATURES WILL BE THE SCALE HOUSE, SCALE, AND STORAGE CONTAINERS.

THERE ARE NO ON–SITE CCSYA'S OR 303(D) WATERS IN THE AREA. THE NEAREST 303(D) WATERS ARE IN THE SWEETWATER RIVER BELOW ITS RESERVOIR. THE OFF–SITE CCSYA'S UPSTREAM OF THE PROJECT WILL BE CONVEYED WITHIN THE LOW FLOW CHANNEL,

THE SWEETWATER RIVER WILL BE ENHANCED AND RESTORED BY THE PROJECT PER SD–G. MINIIMAL IMPERVIOUS SURFACES ARE BEING ADDED. THE OVERALL IMPERVIOUS AREA IS BEING REDUCED. THE ON–SITE ROADS WILL BE PERVIOUS (EITHER DIRT OR DG) PER SD–I. THE PARKING LOTS WILL BE DIRT. ONLY PROPOSED STRUCTURES AND DROP STRUCTURES WILL BE IMPERVIOUS. OUTDOOR WORK AREAS SHALL BE COVERED PER SD–A, AS NEEDED. BERMS CAN BE USED PER SD–C, AS NEEDED TO DIRECT RUNOFF FROM DMA 1B TO THE HARVEST AND USE POND.

THE SDG&E PAD SURFACE WILL REMAIN IN ITS CURRENT NATURAL CONDITION. THE PUBLIC PATHWAY LOCATION AND DESIGN WILL BE COORDINATED WITH THE COUNTY DURING A FUTURE EFFORT. THE PROPOSED TEMPORARY CROSSING WILL MERELY BE A 16–FOOT WIDE AREA ACROSS THE EXISTING GROUND SURFACE.

THE PROJECT PROPOSES THAT MINING, RECLAMATION, AND REVEGETATION ACTIVITIES WILL OCCUR ON A ROLLING BASIS ACROSS THE SITE, IN ORDER TO MINIMIZE IMPACTS ON THE SURROUNDING COMMUNITY. THE SWQMP ADDRESSES MS4 REQUIREMENTS. SITE PREPARATION ACTIVITIES FALL UNDER THE CONSTRUCTION GENERAL PERMIT, MINING ACTIVITIES FALL UNDER THE INDUSTRIAL GENERAL PERMIT, RECLAMATION ACTIVITIES FALL UNDER THE CONSTRUCTION GENERAL PERMIT, AND REVEGETATION ACTIVITIES FALL UNDER THIS SWQMP. WHILE SITE PREPARATION ACTIVITIES ONLY FALL WITHIN PHASE 1, EACH SUBSEQUENT PHASE WILL INCLUDE MINING, RECLAMATION, AND REVEGETATION ACTIVITIES. THEREFORE, THE SITE'S CONSTRUCTION GENERAL PERMIT AND INDUSTRIAL GENERAL PERMIT WILL BE AMENDED AS THESE ACTIVITIES PROGRESS ACROSS THE SITE. BEFORE MINING ACTIVITIES COMMENCE IN ANY PHASE, THE PHASE WILL BE PLACED UNDER THE INDUSTRIAL GENERAL PERMIT. ONCE MINING ACTIVITIES CEASE WITHIN A GIVEN AREA, THE PERMITS WILL BE AMENDED TO REMOVE THAT AREA FROM THE INDUSTRIAL GENERAL PERMIT AND PLACE IT UNDER THE CONSTRUCTION GENERAL PERMIT. ONCE RECLAMATION ACTIVITIES ARE COMPLETED WITHIN A GIVEN AREA, THE PERMITS WILL AGAIN BE AMENDED TO REMOVE THAT AREA FROM THE CONSTRUCTION GENERAL PERMIT. THIS PATTERN OF PERMIT AMENDMENTS WILL PROGRESS ACROSS THE SITE AS MINING, AND THEN RECLAMATION, AND THEN REVEGETATION OCCURS ON A ROLLING BASIS.

DMA EXHIBIT 1 (ON–SITE)
MINING PHASES

PLANT FACILITY DMA NOTES
THE PLANT CONSTRUCTION WILL BE COVERED UNDER THE CONSTRUCTION GENERAL PERMIT. THE PLANT DESIGN FOLLOWS THE MS4 PERMIT. DURING OPERATIONS, THE PLANT ACTIVITIES WILL COVERED BY THE INDUSTRIAL GENERAL PERMIT.

THE TWO PCC DRIVEWAY ENTRANCES, SCALE HOUSE, TRUCK SCALE, AND STORAGE CONTAINERS WILL BE IMPERVIOUS (8,472 SF). ALL OTHER SURFACES WILL BE DIRT. SOIL COMPACTION WILL BE PERFORMED FOR THE HAUL ROAD, EMPLOYEE PARKING LOTS, SCALE HOUSE, TRUCK SCALE, STORAGE CONTAINERS, CONVEYOR FOOTINGS, UTILITY SUPPORTS, AND STOCKPILE FEEDERS/EQUIPMENT. THE FINISH GRADE ELEVATIONS ARE ABOVE THE 100-YEAR WATER SURFACE ELEVATIONS WITH AT LEAST 1-FOOT OF FREEBOARD.

HARVEST AND USE WILL BE EMPLOYED AT THE SITE. THE PLANT AREA STORM RUNOFF WILL BE DIRECTED TO A RETENTION BASIN AT THE WESTERLY END OF THE PAD. THE RETENTION BASIN WILL STORE THE 100-YEAR STORM VOLUME:

VOLUME = P x A x C WHERE P IS THE 100-YEAR, 6-HOUR PRECIPITATION = 3.0", A IS THE AREA = 8.65 ACRES, AND C IS THE RUNOFF COEFFICIENT = 0.30 FOR D SOIL AND MOSTLY NATURAL TERRAIN

= (3/12) x 8.65 x 0.30
= 0.65 AC-FT

THE RETENTION BASIN SHOWN HEREON WILL STORE THE 100-YEAR RUNOFF AT A 3-FOOT DEPTH WITH 1-FEET OF FREEBOARD. THE COLLECTED RUNOFF WILL BE USED FOR ON-SITE OPERATIONS. SINCE THE 100-YEAR RAINFALL IS GREATER THAN THE DESIGN CAPTURE VOLUME (SEE BELOW FOR DCV) THE BASIN WILL SATISFY WATER QUALITY HARVEST AND USE REQUIREMENTS FOR DMA 1B. AN EMERGENCY RISER AND PIPE SHALL PROTECT AGAINST OVERFLOW. THE RETENTION BASIN WILL BE REMOVED WHEN THE PLANT FACILITY IS NO LONGER USED. SITE RECLAMATION WILL REGRADE THE PLANT AREA (SEE SHEET 3).

HARVEST AND USE (HU-1) REQUIRES THE DCV TO DRAINED WITHIN 36 HOURS. DCV IS DETERMINED FROM THE EQUATION:

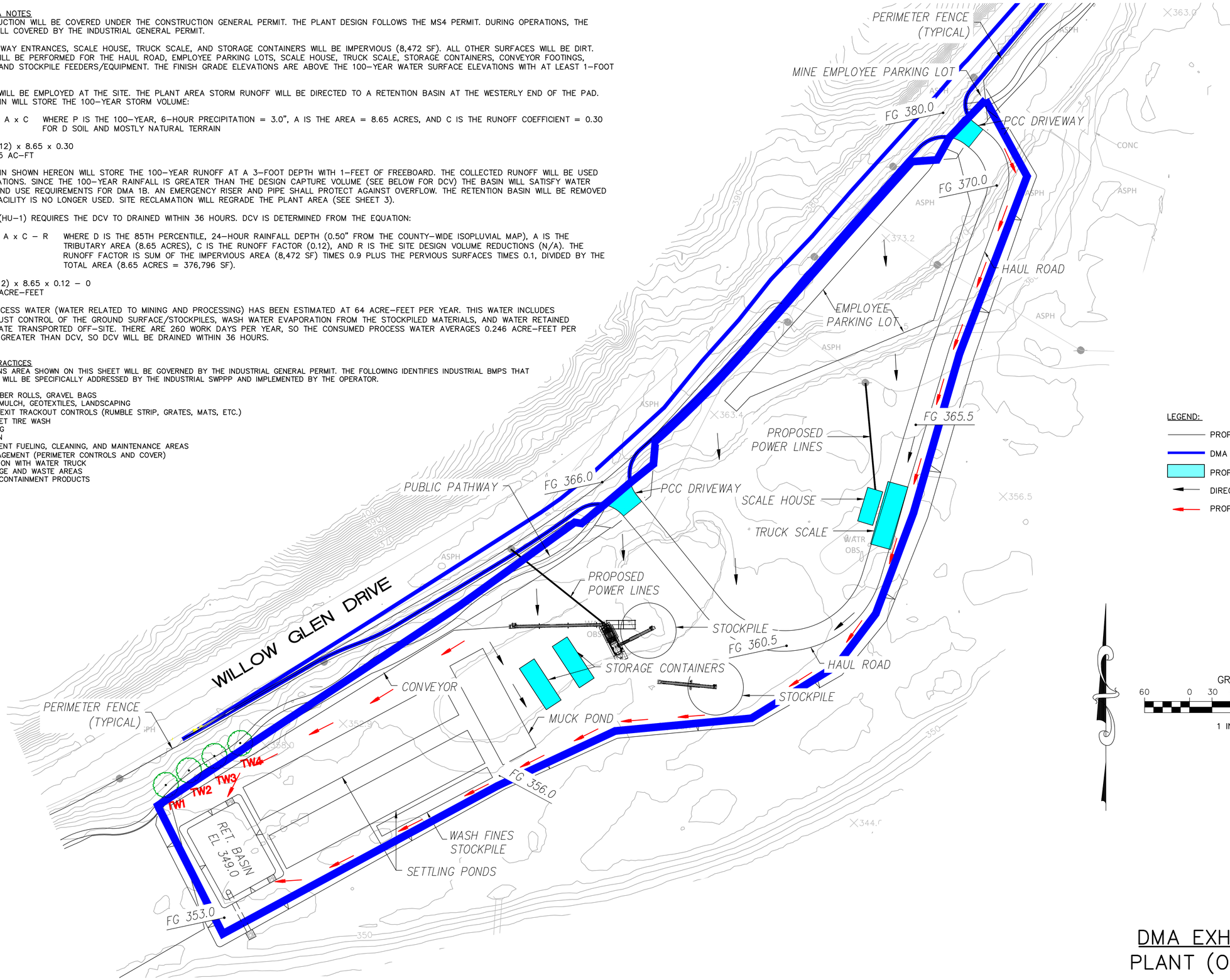
DCV = D/12 x A x C - R WHERE D IS THE 85TH PERCENTILE, 24-HOUR RAINFALL DEPTH (0.50" FROM THE COUNTY-WIDE ISOPLUVIAL MAP), A IS THE TRIBUTARY AREA (8.65 ACRES), C IS THE RUNOFF FACTOR (0.12), AND R IS THE SITE DESIGN VOLUME REDUCTIONS (N/A). THE RUNOFF FACTOR IS SUM OF THE IMPERVIOUS AREA (8,472 SF) TIMES 0.9 PLUS THE PERVIOUS SURFACES TIMES 0.1, DIVIDED BY THE TOTAL AREA (8.65 ACRES = 376,796 SF).

= (0.50/12) x 8.65 x 0.12 - 0
= 0.043 ACRE-FEET

THE CONSUMED PROCESS WATER (WATER RELATED TO MINING AND PROCESSING) HAS BEEN ESTIMATED AT 64 ACRE-FEET PER YEAR. THIS WATER INCLUDES WATER USED FOR DUST CONTROL OF THE GROUND SURFACE/STOCKPILES, WASH WATER EVAPORATION FROM THE STOCKPILED MATERIALS, AND WATER RETAINED WITHIN THE AGGREGATE TRANSPORTED OFF-SITE. THERE ARE 260 WORK DAYS PER YEAR, SO THE CONSUMED PROCESS WATER AVERAGES 0.246 ACRE-FEET PER DAY. THIS IS MUCH GREATER THAN DCV, SO DCV WILL BE DRAINED WITHIN 36 HOURS.

BEST MANAGEMENT PRACTICES
THE PLANT OPERATIONS AREA SHOWN ON THIS SHEET WILL BE GOVERNED BY THE INDUSTRIAL GENERAL PERMIT. THE FOLLOWING IDENTIFIES INDUSTRIAL BMPS THAT CAN BE USED. THESE WILL BE SPECIFICALLY ADDRESSED BY THE INDUSTRIAL SWPPP AND IMPLEMENTED BY THE OPERATOR.

SILT FENCING, FIBER ROLLS, GRAVEL BAGS
HYDROSEEDING, MULCH, GEOTEXTILES, LANDSCAPING
SITE ENTRANCE/EXIT TRACKOUT CONTROLS (RUMBLE STRIP, GRATES, MATS, ETC.)
ENTRANCE/OUTLET TIRE WASH
STREET SWEEPING
RETENTION BASIN
VEHICLE/EQUIPMENT FUELING, CLEANING, AND MAINTENANCE AREAS
STOCKPILE MANAGEMENT (PERIMETER CONTROLS AND COVER)
DUST SUPPRESSION WITH WATER TRUCK
COVERED STORAGE AND WASTE AREAS
SPILL CONTROL CONTAINMENT PRODUCTS



LEGEND:
- PROPOSED PROJECT
- DMA 1B (8.65 AC)
- PROPOSED IMPERVIOUS AREAS (8,472 SF)
- DIRECTION OF PROPOSED DRAINAGE
- PROPOSED EARTHEN SWALE

GRAPHIC SCALE
60 0 30 60 120 240
1 INCH = 60 FEET

DMA EXHIBIT 2 (ON-SITE)
PLANT (OPERATIONS) AREA

DMA	Phase	Area, ac	Impervious Area, sf	Notes
4A	4	29.07	0	No impervious area. Meets requirements per notes below.
4B	4	4.37	0	No impervious area. Meets requirements per notes below.
4C	4	79.48	37,891 13,477 (semi-pervious)	Impervious area from grouted riprap drop structure (1.1% of DMA). Meets requirements per notes below. Semi-pervious DG road to extend access from existing DG road to SDG&E tower. Self-retaining via SSD, SD-B, impervious area dispersion.
4D	4	15.77	13,427	Impervious area from grouted riprap drop structure (0.9% of DMA). Meets requirements per notes below.
4E	4	22.19	8,876	Impervious area from grouted riprap drop structure (0.9% of DMA). Meets requirements per notes below.
4F	4	19.16	0	No impervious area. Meets requirements per notes below.
Total	4	170.04	13,477 (semi-pervious) 60,194 (impervious)	

DMA SUMMARY TABLE FOR POST–MINING RECLAMATION

RECLAMATION DMA NOTES

THE POST–MINING RECLAMATION IS COVERED BY THE CONSTRUCTION GENERAL PERMIT AND MS4 REQUIREMENTS. ALL OR PORTIONS OF DMAs 4B, 4C, 4D, 4E, AND 4F WILL BE GRADED TO THEIR FINAL LANDFORM DURING MINING (SEE SHEET 1 FOR MINING). THE PAD AND ADJACENT SLOPE IN DMA 4A WILL BE CONSTRUCTED DURING RECLAMATION AND IS THE PRIMARY DIFFERENCE FROM THE MINING PLAN. THE RECLAIMED CONDITION WILL HAVE THE SAME TWO POCs ALONG THE SWEETWATER RIVER AS PRE–PROJECT CONDITIONS AND THE MINING PHASES. POC EAST IS WHERE SWEETWATER RIVER MEETS STEELE CANYON ROAD. POC WEST IS WHERE THE SWEETWATER RIVER EXITS THE SITE. THERE ARE ADDITIONAL POCs ASSOCIATED WITH OFF–SITE AREAS THAT DRAIN ONTO THE SITE. THESE POCs AND OFF–SITE DRAINAGE AREAS WILL BE MAINTAINED BY THE PROJECT.

RECLAMATION SELF–MITIGATING AREAS

DMAs 4A, 4B, 4C, 4D, AND 4E ARE CLASSIFIED AS SELF–MITIGATING AREAS. THE SELF–MITIGATING REQUIREMENTS ARE MET AS FOLLOWS:

THESE DMAs ARE EITHER 100 OR NEAR 100 PERCENT PERVIOUS. THE DISTURBED AREAS WILL BE REVEGETATED WITH NATIVE, DROUGHT–TOLERANT PLANTS CONSISTING OF RIPARIAN SCRUB, A FOREST REHABILITATION PLANT PALETTE, RIPARIAN FOREST, EMERGENT WETLAND, OR EROSION CONTROL SEED MIX. PLANT SPECIES USED IN THE REVEGETATION EFFORT WILL BE CAPABLE OF SELF–REGENERATION WITHOUT CONTINUED DEPENDENCE ON IRRIGATION, SOIL AMENDMENTS, FERTILIZER, OR PESTICIDES.

THE SOILS WILL BE NATIVE TOPSOILS OR SOILS OBTAINED FROM THE MINING OPERATIONS. THE SOILS MUST BE AMENDED AND AERATED TO PROMOTE WATER RETENTION EQUIVALENT TO NATIVE TOPSOIL. SINCE THE SITE WILL ULTIMATELY PRIMARILY PROVIDE SWEETWATER RIVER RESTORATION, SOIL COMPACTION REQUIREMENTS WILL BE MINIMIZED. FUTURE DEVELOPMENT OF THE DMA 4A PAD MAY REQUIRE COMPACTION DEPENDING ON THE END USE AND BE SUBJECT TO FUTURE MS4 REQUIREMENTS.

PER THE TABLE ABOVE, THE INCIDENTIAL IMPERVIOUS AREAS ARE LESS THAN 5 PERCENT. STORM RUNOFF FROM THESE AREAS WILL BE ALLOWED TO SHEET FLOW OVER THE NATURAL RECEIVING SURFACE TO PROMOTE DISPERSION,

THE IMPERVIOUS AREAS ARE STANDALONE, ISOLATED AREAS NOT HYDRAULICALLY CONNECTED TO OTHER IMPERVIOUS AREAS.

THERE ARE NO PERMANENT STORM WATER CONTROL BMPs FOR THE MINING AREAS.

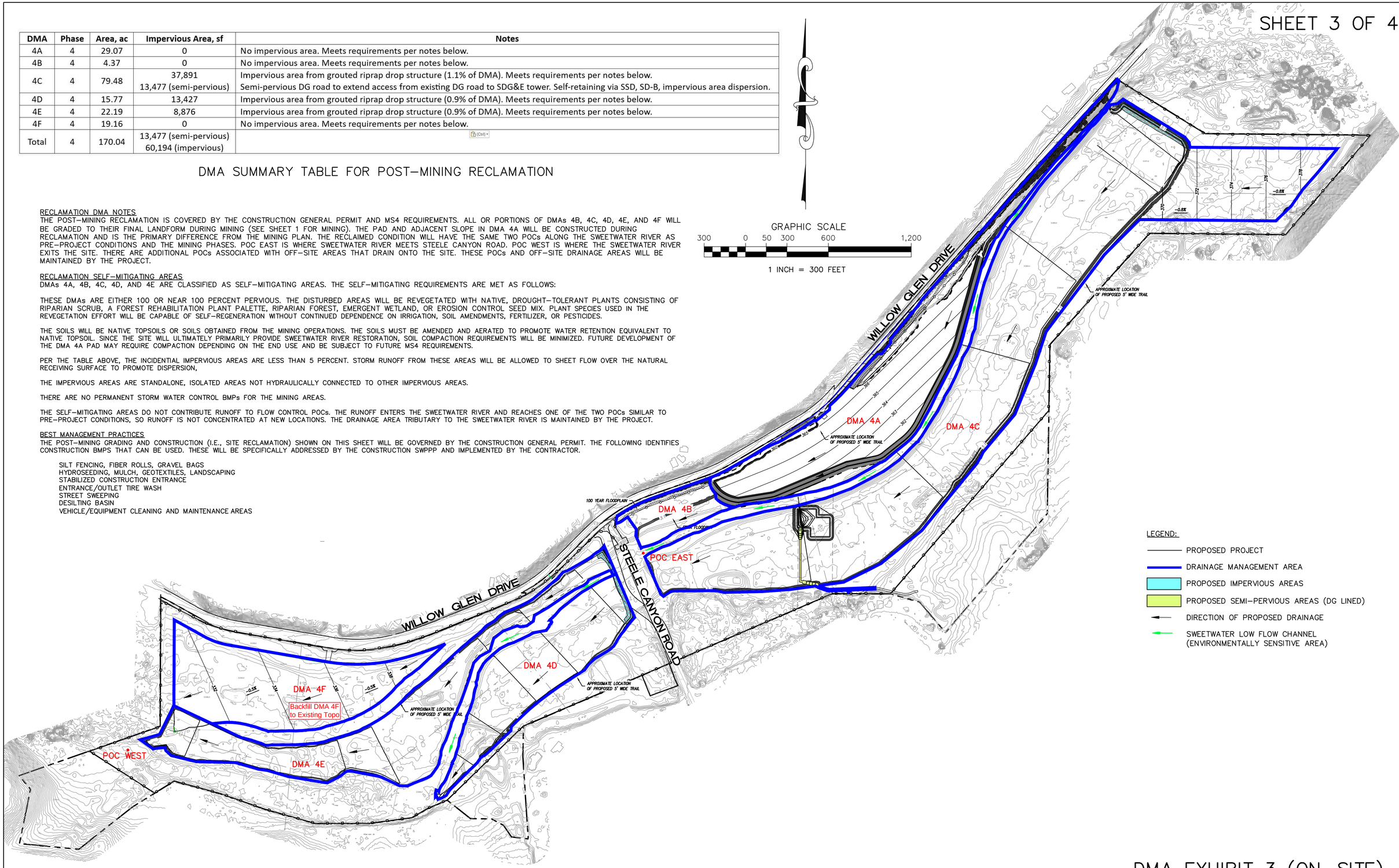
THE SELF–MITIGATING AREAS DO NOT CONTRIBUTE RUNOFF TO FLOW CONTROL POCs. THE RUNOFF ENTERS THE SWEETWATER RIVER AND REACHES ONE OF THE TWO POCs SIMILAR TO PRE–PROJECT CONDITIONS, SO RUNOFF IS NOT CONCENTRATED AT NEW LOCATIONS. THE DRAINAGE AREA TRIBUTARY TO THE SWEETWATER RIVER IS MAINTAINED BY THE PROJECT.

BEST MANAGEMENT PRACTICES

THE POST–MINING GRADING AND CONSTRUCTION (I.E., SITE RECLAMATION) SHOWN ON THIS SHEET WILL BE GOVERNED BY THE CONSTRUCTION GENERAL PERMIT. THE FOLLOWING IDENTIFIES CONSTRUCTION BMPS THAT CAN BE USED. THESE WILL BE SPECIFICALLY ADDRESSED BY THE CONSTRUCTION SWPPP AND IMPLEMENTED BY THE CONTRACTOR.

SILT FENCING, FIBER ROLLS, GRAVEL BAGS
HYDROSEEDING, MULCH, GEOTEXTILES, LANDSCAPING
STABILIZED CONSTRUCTION ENTRANCE
ENTRANCE/OUTLET TIRE WASH
STREET SWEEPING
DESILTING BASIN
VEHICLE/EQUIPMENT CLEANING AND MAINTENANCE AREAS

GRAPHIC SCALE
300 0 50 300 600 1,200
1 INCH = 300 FEET



LEGEND:

- PROPOSED PROJECT
- DRAINAGE MANAGEMENT AREA
- PROPOSED IMPERVIOUS AREAS
- PROPOSED SEMI–PERVIOUS AREAS (DG LINED)
- DIRECTION OF PROPOSED DRAINAGE
- SWEETWATER LOW FLOW CHANNEL (ENVIRONMENTALLY SENSITIVE AREA)

DMA EXHIBIT 3 (ON–SITE)
POST–MINING (RECLAMATION)

LEGEND:

PROPOSED STREET WIDENING (14,213 SF)

DMA 1A BOUNDARY – SWALES WILL DIRECT 1/4 OF 14,213 SF (3,553 SF) TO EACH TREE WELL.

TW1, TW2, TW3, AND TW4 – PROPOSED TREE WELLS (30' MINIMUM MATURE CANOPY DIAMETER TREE IN EACH) PER DETAIL.

DIRECTION OF STREET DRAINAGE (INSTALL ROADSIDE DRAIN TO TREE WELLS)

1. IF NRCS HYDROLOGIC SOIL GROUP "A" OR "B" IS ENCOUNTERED, OR IF THE DESIGN SUBSOIL INFILTRATION RATE IS 0.2 IN/HR OR GREATER; STRUCTURAL SOIL MAY BE PLACED OVER UNCOMPACTED SUBGRADE.

TREE WELL DETAIL

WILLOW GLEN DRIVE DMA NOTES:

THE WILLOW GLEN DRIVE WIDENING IMPROVEMENTS AREA COVERED BY THE CONSTRUCTION GENERAL PERMIT.

THE UNDERLYING HYDROLOGIC SOIL GROUP IS PRIMARILY A WITH A MINOR AMOUNT OF B.

THE APPROXIMATE DEPTH TO GROUNDWATER IS OVER 20 FEET.

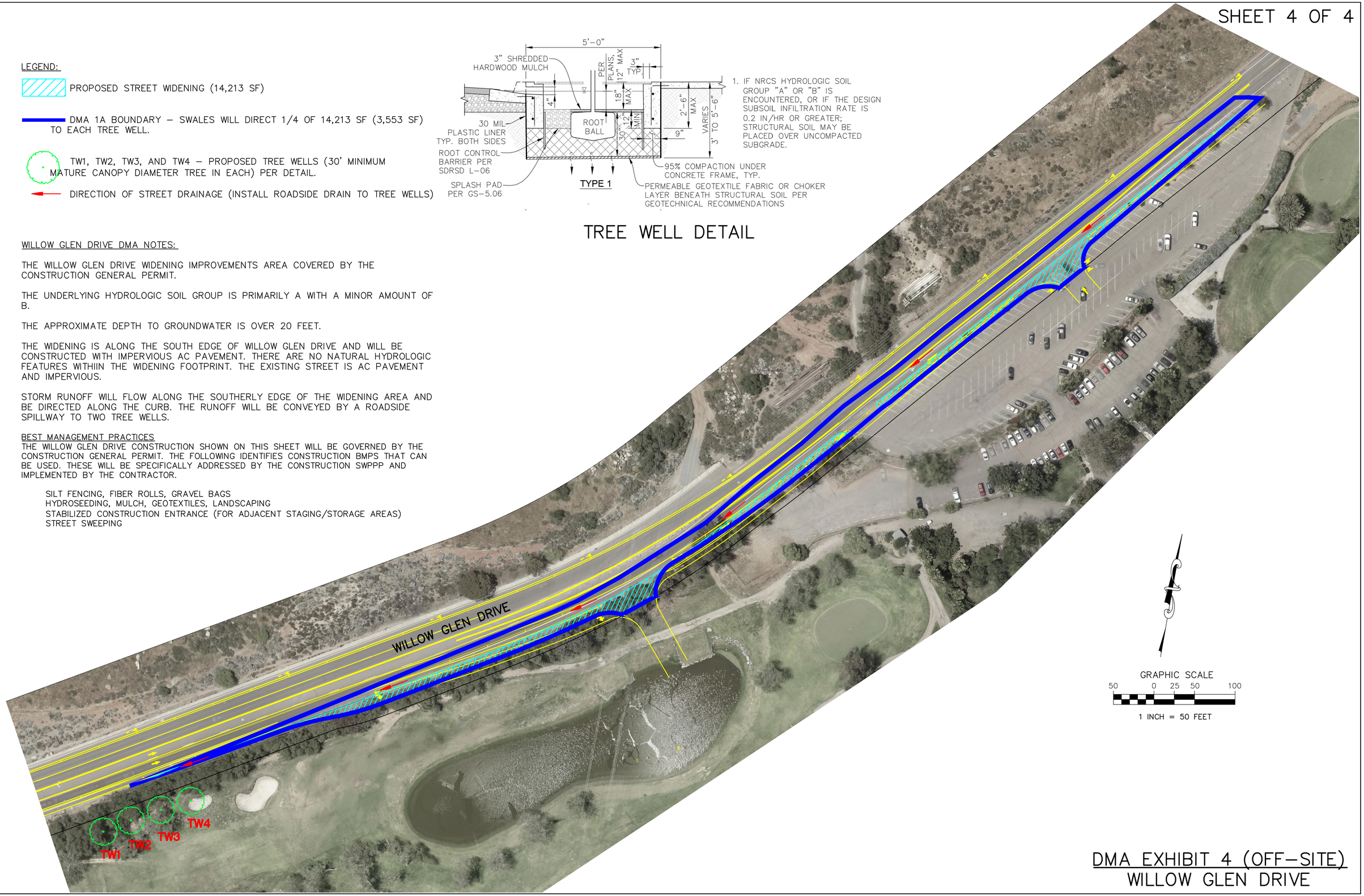
THE WIDENING IS ALONG THE SOUTH EDGE OF WILLOW GLEN DRIVE AND WILL BE CONSTRUCTED WITH IMPERVIOUS AC PAVEMENT. THERE ARE NO NATURAL HYDROLOGIC FEATURES WITHIIN THE WIDENING FOOTPRINT. THE EXISTING STREET IS AC PAVEMENT AND IMPERVIOUS.

STORM RUNOFF WILL FLOW ALONG THE SOUTHERLY EDGE OF THE WIDENING AREA AND BE DIRECTED ALONG THE CURB. THE RUNOFF WILL BE CONVEYED BY A ROADSIDE SPILLWAY TO TWO TREE WELLS.

BEST MANAGEMENT PRACTICES

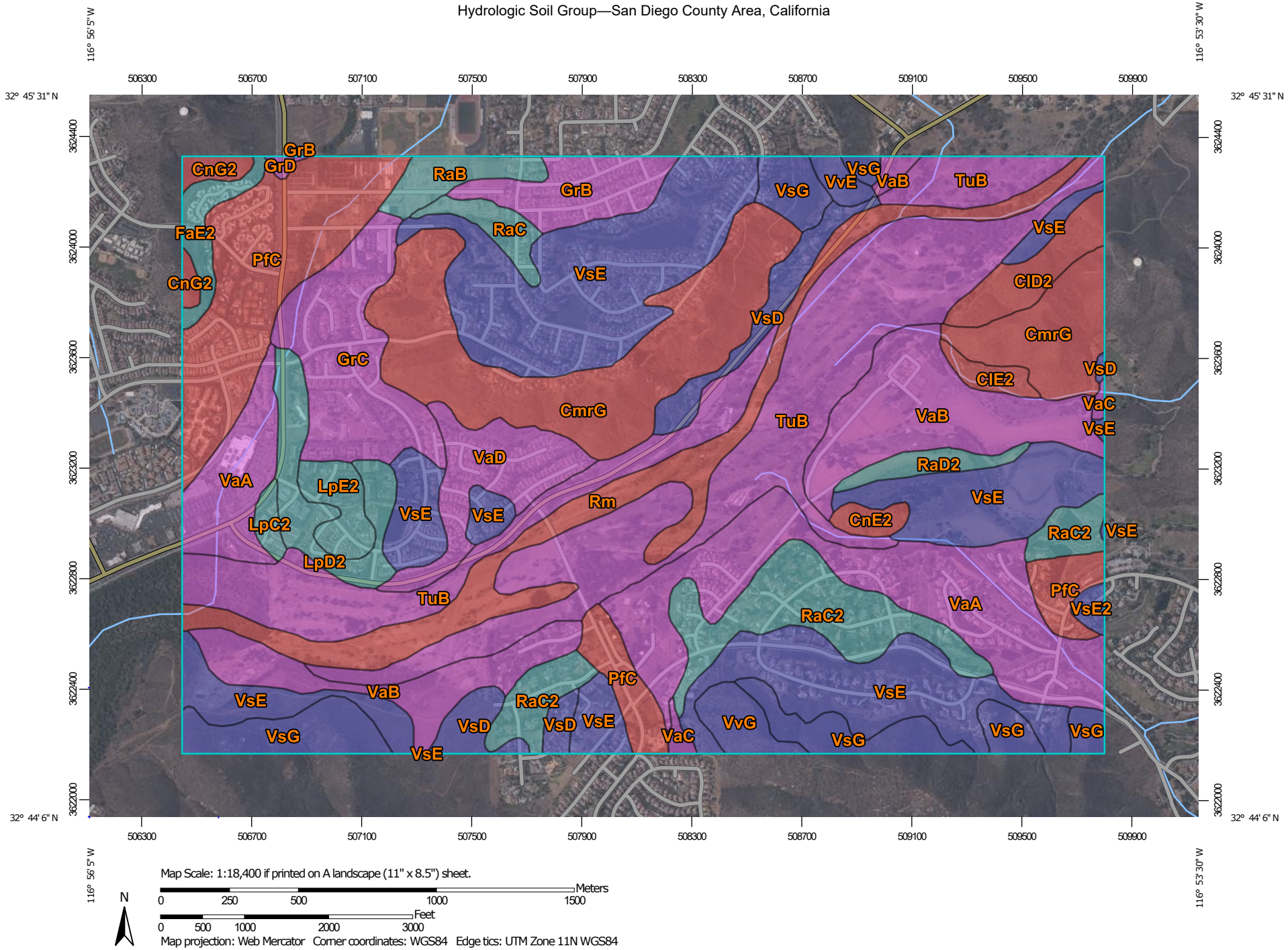
THE WILLOW GLEN DRIVE CONSTRUCTION SHOWN ON THIS SHEET WILL BE GOVERNED BY THE CONSTRUCTION GENERAL PERMIT. THE FOLLOWING IDENTIFIES CONSTRUCTION BMPS THAT CAN BE USED. THESE WILL BE SPECIFICALLY ADDRESSED BY THE CONSTRUCTION SWPPP AND IMPLEMENTED BY THE CONTRACTOR.

SILT FENCING, FIBER ROLLS, GRAVEL BAGS
HYDROSEEDING, MULCH, GEOTEXTILES, LANDSCAPING
STABILIZED CONSTRUCTION ENTRANCE (FOR ADJACENT STAGING/STORAGE AREAS)
STREET SWEEPING



GRAPHIC SCALE
50 0 25 50 100
1 INCH = 50 FEET

DMA EXHIBIT 4 (OFF-SITE)
WILLOW GLEN DRIVE


116° 56' 5" W
116° 53' 30" W
32° 45' 31" N
32° 44' 6" N
506300
506700
507100
507500
507900
508300
508700
509100
509500
509900
3624400
3624000
3623600
3623200
3622800
3622400
3622000
GrB
GrD
CnG2
RaB
GrB
VsG
VvE
VaB
TuB
FaE2
RaC
VsE
PfC
VsE
CnG2
CID2
VsD
CmrG
GrC
VsD
CIE2
CmrG
VaC
TuB
VaB
VsE
VaD
RaD2
VaA
LpE2
Rm
VsE
VsE
VsE
LpC2
CnE2
RaC2
VsE
LpD2
PfC
TuB
VaA
VsE2
RaC2
VaB
PfC
VsE
RaC2
VsE
VsE
VsD
VsD
VsE
VvG
VsG
VsG
VsG
VaC
VsE
Map Scale: 1:18,400 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 250 500 1000 1500
Feet
0 500 1000 2000 3000
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Diego County Area, California
Survey Area Data: Version 15, May 27, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 18, 2018—Aug 22, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.