APPENDIX L

Stormwater Pollution Prevention Plan

STORM WATER POLLUTION PREVENTION PLAN

Super Creek Quarry
Section 36, T2S, R3E
Desert Hot Springs, California

SWRCB WDID# 7 33I013580

Prepared For:
Whitewater Rock & Supply Co.
58645 Old Highway 60
Whitewater, California 92282

Prepared By:
Stantec Consulting Corporation
290 Conejo Ridge Avenue
Thousand Oaks, California 91361

April 30, 2009

183402036

One Team. Infinite Solutions.

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Section 1.0 SWPPP: Certifications and Approval

1.1 SWPPP Certification by Preparer

Project Name: Super Creek Quarry, Section 36, T2S, R3E, Desert Hot Springs, California, WDID # 7 33I013580

Project Number: Riverside County Mining/Reclamation Plan No. 137 (CA Mine ID #91-33-0003)

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Preparer Signature	April 30, 2009 Date
Christy L. Confar, R.G., R.E.A., Associate Geologist Preparer Name and Title	(805) 230-1266 Telephone Number
Preparer Signature	April 30, 2009 Date
Todd Porter, R.C.E., R.M.E., Senior Engineer Preparer Name and Title	(805) 546-0455 Telephone Number
Preparer Signature	April 30, 2009 Date
Steven C. Brady, C.E.G., C.HG., R.E.A., Principal Hydrogeologist Preparer Name and Title	(805) 230-1266 Telephone Number

REGISTERED PROFESSIONAL ENGINEER
TODD MICHAEL PORTER
No.C052699
12-31-10
CIVIL
STATE OF CALIFORNIA

1.2 Owner Approval and Certification of SWPPP

Owner's (or Authorized Representative)
Approval and Certification of the Storm Water Pollution Prevention Plan

Project Name: Super Creek Quarry, Section 36, T2S, R3E, Desert Hot Springs, California, WDID # 7 33I013580

Project Number: Riverside County Mining/Reclamation Plan No. 137 (CA Mine ID #91-33-0003)

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Owner (or Authorized Representative) Signature	Date
Allan Bankus, Jr., Vice President	(760) 325-2747
Name and Title	Telephone Number

1.3 Annual Compliance Certification

By July 1st of each year, the Owner shall complete an Annual Certification of Compliance stating compliance with the terms and conditions of the Permit and the Storm Water Pollution Prevention Plan (SWPPP). The blank Annual Certification of Compliance Form is included in Attachment A. Completed Annual Certifications of Compliance and Approvals can be found in the following pages.

Section 2.0: SWPPP Amendments

2.1 SWPPP Amendment Certification and Approval

This SWPPP shall be amended:

- Whenever there is a change in operations which may affect the discharge of pollutants to surface waters, groundwater(s), or a municipal separate storm sewer system (MS4); or
- If any condition of the Permits is violated or the general objective of reducing or eliminating pollutants in storm water discharges has not been achieved. If the Regional Water Quality Control Board (RWQCB) determines that a Permit violation has occurred, the SWPPP shall be amended and implemented within 14-calendar days after notification by the RWQCB;
- Annually, prior to the defined rainy season; and
- When deemed necessary by the Owner.

The following items will be included in each amendment:

- Who requested the amendment;
- The location of proposed change;
- The reason for change;
- The original BMP proposed, if any; and
- The new BMP proposed.

The amendments for this SWPPP, along with the Owner's Certification and the Owner approval, can be found in the following pages. Amendments are listed in the Amendment Log in section 2.2.

SWPPP Amendment No. ___

Project Name: Super Creek Quarry, Section 36, T2S, R3E, Desert Hot Springs, California, WDID # 7 33I013580

Project Number: Riverside County Mining/Reclamation Plan No. 137 (CA Mine ID #91-33-0003)

Preparer Certification of the Storm Water Pollution Prevention Plan Amendment

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Preparer Signature	Date
Todd Porter, R.C.E., R.M.E., Senior Engineer	(805) 546-0455
Preparer Name and Title	Telephone Number

Owner (or Owner's Authorized Representative) Approval of the Storm Water Pollution Prevention Plan Amendment

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Owner (or Authorized Representative) Signature	Date
Allan Bankus, Jr., Vice President	(760) 325-2747
Name and Title	Telephone Number

2.2 Amendment Log

Project Name:	Super Creek Quarry, Section 36, T2S, R3E, Desert Hot Springs, California, WDID # 7 33I013580
Project Number:	Riverside County Mining/Reclamation Plan No. 137 (CA Mine ID #91-33-0003)

Amendment No.	Date	Brief Description of Amendment	Prepared By

Section 3.0: Introduction and Project Description

3.1 Introduction and Project Description

The project is an operating quarry and open pit mine in Riverside County located at Assessor's Parcel Number 514-260-012, portion of the west half of Section 36, Township 2 South, Range 3 East, SBBM. The active mine is located approximately 2 miles north of Whitewater's retail site, which is located at 58645 Old Highway 60, Whitewater, California. Access to the active mine area is provided by an existing Bureau of Land Management (BLM) right-of-way dirt haul road. The active mining and reclamation activities are permitted by Bureau of Land Management Plan of Operations and Amended Reclamation Plan No. 137.

The current active mine consists of approximately 23.8 acres, with an additional approximately 27 acres of inactive waste material slopes. Approximately 12 acres along the western boundary of the Site will remain partially undisturbed. An additional 32.4 acres is currently proposed for expansion of mining and waste material slopes, for a total project area of 95.2 acres. Following approval of the expansion plan, the mine is planned to continue operations for an additional 25 years.

The quarried ore is brownish red and gold high-silica gneiss and schist, which is mined as crushed decorative rock named "Palm Springs Gold." This mineral commodity has been mined at the Site almost continuously since the 1950s. A thin layer of overburden materials is present and is composed of sands, silts, and clays.

Mining operations include open pit, hill top, multi-bench and side hill methods. The mining is accomplished with bulldozers, excavators, and front-end loaders. The material is ripped and pushed into a raw stockpile, then transported to one of two portable crushing and dry screening plants using front-end loaders or haul trucks. The raw material is fed through the crusher and screened through a double-deck screen to produce the 3" minus Palm Springs Gold product. The 3" minus product is then processed through a triple-deck screening plant and cone crusher. The final product is transported off-site in haul trucks to Whitewater's retail yard.

All other material produced in the mining process that does not become product is considered waste and is deposited into the designated waste placement areas. The waste material is predominantly comprised of sand sized material, but grain sizes range from small gravel down to silt and clay. There are three waste placement areas associated with the Site; two proposed new waste placement areas designated as the Northwest Waste Placement Stockpile (approximately 8 acres maximum, depending on planned build-out), and the Southwest Waste Placement Area (approximately10 acres), and a third waste placement area, designated as the Eastern Tailings Slope. The Eastern Tailings Slope is inactive and is currently being reclaimed. Portions of the Eastern Tailings Slope existed before the Surface Mining and Reclamation Act (SMARA) of 1975.

A series of 10 to 12 sedimentation basins exist at the base of the eastern tailings slope with sedimentation basin #1 being located at the north end of the slope through sedimentation basin #12 at the south end of the slope. Overflow from each sedimentation basin beginning at basin #1 is successively directed into the following basin, with basin #12 present as the last in the series. Overflow from basin #12 is directed south from basin #12 along the west side of the access road. This discharge leaves the Site at the southeast project boundary where it is anticipated to flow over

the access road and into Super Creek downstream from the project boundary. This is the only current location of storm water discharge from the Site.

3.2 Unique Site Features

This SWPPP addresses three areas of the Site: the active mine area, new waste stockpiles, and inactive (post-SMARA) portions of the eastern tailings slope.

3.2.1 Active Mine Area

Storm water runoff at the active mine area is retained on-site with the quarry pit providing retention. A detention pond for the quarry area also exists along the quarry road at the top of the north end of the inactive eastern tailings slope. Storm water appears to be retained in this location, but does have the potential to overflow into sedimentation basin #1 at the base of the inactive eastern tailings slope during a significant storm event or a series of storm events over a short duration. The overflow appears to follow the dirt road that continues down the slope and connects with the across road at the base of the eastern tailings slope.

3.2.2 New Waste Placement Areas

The new waste placement areas do not currently exist on the Site, but are anticipated to be created as mining operations continue during future expansion. The new waste piles are anticipated to grow incrementaly based on quarrying activities. Final areas of waste placement and anticipated build-out will likely be modified through time depending on future quarry operations.

Storm water will be prevented from flowing over the two new waste stockpiles as they are constructed using grade control berming, a controlled/directional drainage system, and other interim actions/best management practices (BMPs), considered necessary throughout their growth.

Precipitation that intersects the surface of the Northwest Waste Placement Area is anticipated to be directed through channels and other erosion control BMPs into a detention basin at the base of the stockpile. Overflow from the detention basin will be directed through a riser and piping and discharge directly into Super Creek. Overflow through an emergency spillway will be directed into the existing chain of sedimentation basins along the eastern side of the access road parallel to Super Creek.. This stormwater will eventually discharge into Super Creek as previously described.

Precipitation that intersects the surface of the Southwest Waste Placement Area is anticipated to be controlled via drainage terraces with water bars and straw wattles. A riprap dam (or a detention basin, depending on planned build-out) is planned for the base of the stockpile.

It is anticipated that modification of this SWPPPand BMPs may be necessary as each of the new waste piles are created, as additional storm water discharge locations may be identified.

3.2.3 Eastern Tailings Slope

Storm water runoff from the active mine area is kept from flowing onto the inactive eastern tailings slope using a controlled drainage system at the rim along the top the slope. Accordingly, runoff from the eastern tailing pile is primarily the result of direct precipitation. Precipitation that enters the

eastern tailings area downslope from the rim flows as either sheet flow or concentrated flow in rills where it enters the sedimentation basins that are aligned along the base of the slope. Overflow from the sedimentation basins enters Super Creek downstream of the project boundary. Super Creek is an intermittent stream that flows generally to the south with headwaters located just north of the northeastern Site boundary. Super Creek eventually drains into Garnet Wash to the south.

3.3 Site Estimates

The basis for stormwater runoff estimates is included in the Erosion Control Design attachment (Attachment E).

3.4 Project Schedule/Water Pollution Control Schedule

Mining Began: 1950s
Estimated Mining Finish: 2039

- Mining equipment and materials are mobilized onsite and in use as demand for product arises and weather permits
- Haul road is in place and operational
- Erosion and Sedimentation Controls design submitted by Stantec to owner's representative in August 2008 and updated in April 2009
- Continue sediment and erosion control Best Management Practices (BMPs) as outlined in the Erosion Control Plan (Attachment E), with amended practices initiated immediately
- SWPPP annual report due by July 1st each year
- Clear out sedimentation basins by September 15th each year, and as needed during the year
- Rainy season begins October 1st each year
- Rainy season ends March 31st each year
- Sporadic intense rains, typically as short thundershowers, may occur outside the rainy season
- Start final stabilization, re-vegetation, and landscaping in 2034
- Project complete in 2039

3.5 Contact Information/List of Responsible Parties

The Storm Water Pollution Prevention Manager (SWPPM) assigned to this project is Allan Bankus, Jr., Vice President of the Super Creek Quarry (760-325-2747).

The SWPPM shall have primary responsibility and significant authority for the implementation, maintenance, inspection and amendments to the approved SWPPP. The SWPPM will be available at all times throughout the duration of the project. Duties of the SWPPM include but are not limited to:

- Ensuring full compliance with the SWPPP and the Permit;
- Implementing elements of the SWPPP, including but not limited to:

- Implementation of prompt and effective erosion and sediment control measures; and
- Implementing all non-storm water management, and materials and waste management activities such as: monitoring discharges (dewatering, diversion devices); general site clean-up; vehicle and equipment cleaning, fueling and maintenance; spill control; ensuring that no materials other than storm water are discharged in quantities which will have an adverse effect on receiving waters or storm drain systems; etc.;

- Pre-storm inspections;
- Storm event inspections;
- Post-storm inspections;
- Routine inspections as specified in the project's specifications or described in the SWPPP;
- Updates/Amendments to the SWPPP, as needed;
- Preparing annual compliance certification for owner's, or owner's authorized representative, signature;
- Ensuring elimination of unauthorized discharges;
- The SWPPM shall be assigned authority by the Contractor to mobilize crews in order to make immediate repairs to the control measures;
- Coordinate with the Contractor to assure the necessary corrections/repairs are made immediately, and that the project complies with the SWPPP, the Permit and approved plans at all times; and
- Submitting Notices of Discharge and reports of Illicit Connections or Illegal Discharges.

Section 4.0: References

The following documents are made a part of this SWPPP by reference:

- Storm Water Pollution Prevention Plan (SWPPP) Monitoring and Inspection Program, Super Creek Quarry, December 9, 1993;
- Super Creek Quarry Expansion BLM Plan of Operations and Amended Reclamation Plan No. 137 (CA ID #91-33-0003), November 2008;
- Whitewater Rock & Supply Company Business Emergency Plan, December 12, 2002;
- Whitewater Rock & Supply Company Slope Stability Investigation, August 29, 2008;
- Whitewater Rock & Supply Co. 2007-2008 Annual Report for Storm Water Discharges Associated with Industrial Activities;
- State Water Resources Control Board (SWRCB) Water Quality Order No. 97-03-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000001, Waste Discharge Requirements (WDRs) for Discharges of Storm Water Associated with Industrial Activity;
- State Water Resources Control Board (SWRCB) Draft National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000001, Waste Discharge Requirements (WDRs) for Discharges of Storm Water Associated with Industrial Activity, 2005;
- California Stormwater Quality Association BMP Handbook – Industrial and Commercial, 2003;
- Riverside County Stormwater Quality Best Management Practice Design Handbook, July 21, 2006; and
- Rehabilitation of Disturbed Lands in California: A Manual for Decision Making, California Department of Conservation, Office of Mine Reclamation, 2003.

Section 5.0: Body of SWPPP

5.1 Objectives

This SWPPP has five main objectives:

- Identify pollutant sources, including sources of sediment that may affect the quality of storm water discharges associated with mining activity (storm water discharges) from the site;
- Identify non-storm water discharges;
- Identify, construct, implement in accordance with a time schedule, and maintain BMPs to reduce or eliminate pollutants in storm water discharges from the site during mining;
- Develop a maintenance schedule for BMPs to reduce or eliminate pollutants after application of structural BMPs (extend schedule into post-reclamation); and
- For Site activities, identify a sampling and analysis strategy and sampling schedule for discharges that have been discovered through visual monitoring that could be potentially contaminated by pollutants not visually detectable in the runoff.

This SWPPP conforms with the required elements of the General Permit No. CAS000001 issued by the State of California, State Water Resources Control Board (SWRCB). This SWPPP will be modified and amended to reflect amendments to the Permit or changes in mining or operations that may affect the discharge of pollutants from the site to surface waters, groundwater, or a municipal storm sewer system (MS4). The SWPPP will also be amended if it is in violation of any condition of the Permit or has not achieved the general objective of reducing pollutants in storm water discharges. The SWPPP shall be readily available onsite for the duration of the project. The Notice of Intent (NOI) is provided in Attachment B.

5.2 Vicinity Map

The project vicinity map showing the project location, geographic features, and general topography is located in Attachment C. A photo log of the project site is included in Attachment D.

5.3 Pollutant Source Identification and BMP Selection

5.3.1 Inventory of Materials and Activities that May Pollute Storm Water

There are no known toxic materials that have been treated, stored, disposed, spilled, or leaked in significant quantities on the Site before or after November 19, 1988. No blasting or storage of explosives on-site occurs or is planned to occur throughout the life of mining operations. There are no underground storage tanks (USTs) located at the Site. Hazardous materials are used at designated equipment service areas, and the Site maintains a Spill Prevention Control and Countermeasures (SPCC) Plan.

The following is a list of materials that will be used and activities that will be performed that will have the potential to contribute pollutants, other than sediment, to storm water runoff (control practices are identified in the Water Pollution Control Drawings (WPCDs) and/or in Sections 5.3.4 through

5.3.9):

- Diesel Fuel;
- Oils/Lubricants; and
- Waste Oil.

Site activities that have the potential to contribute sediment to storm water discharges include:

- Removing and stockpiling of overburden material;
- Ripping of raw product and stockpiling;
- Crushing and screening of raw product;
- Loading and transportation of 3" minus product in haul trucks;
- Grading of haul road;
- Vehicle traffic; and
- Erosion of waste tailings stockpiles.

Narrative descriptions of BMPs to be used during the project are listed by category in each of the following SWPPP sections.

5.3.2 Existing Control Measures

The following are existing control measures at the Site:

- Drainage at the active mine area is presently self-contained where storm water runoff is directed into the quarry pit for retention via a controlled drainage system;
- Brow ditches are installed above the waste tailings slopes, or the tops of the slopes are graded to prevent ponding of storm water. These features are designed to divert sheet flow away from the tailings slopes and into the quarry pit for retention;
- Precipitation that intersects the inactive eastern waste tailings slope downslope from the rim is directed a series of 10-12 sedimentation basins at the base of the slope;
- Runoff generated along the quarry road at the base of the inactive eastern tailings slope is diverted towards the sedimentation basins and away from Super Creek;
- Excess sediments derived from the eastern waste tailings are directed to sedimentation basins at the base of the slope in accordance with the current reclamation plan;
- Mining equipment that is not in use is not stored at the Site. Equipment not in use is stored at Whitewater's retail area (off-site);
- Mining equipment is regularly maintained and inspected to avoid leaks and spills;

- When equipment maintenance is performed on-site, such as oil changes, the used oil is collected into drip pans, transferred into a mobile equipment service truck then into a waste oil tank, and manifested for off-site disposal by trained and licensed personnel;

- Operating mining equipment, when not in operation, is secured and parked near the crusher;

- Dust suppression activities are used at the Site, including spraying roads, active stockpiles, and active mining areas;

- Potentially polluting materials, such as trash containers, are covered at all times;

- The Site is kept free of litter and debris;

- Materials and equipment received for mining/reclamation purposes are unloaded off-site and inspected before being transported onto the Site. Once on-site, runoff in contact with these materials/equipment is directed into the quarry pit for retention and not into the off-site flow systems;

- Equipment is not stored, cleaned, or maintained near any point at the Site that would allow storm water runoff to enter off-site flow systems;

- Waste materials, such as oils, tires, and batteries, are recycled whenever possible, and not stored on-site; and

- The Site maintains an SPCC plan.

5.3.3 Existing Data Describing the Soil

The Site is composed predominantly of exposed bedrock with minimal soil cover (overburden) and fill (tailings). Bedrock composition is predominantly metamorphic schist and quartz diorite. Fill is composed mostly of silty sand located at the tailings slopes, along roads and equipment pads. The overburden material is composed of younger colluvium overlying bedrock along slope faces, and younger alluvium along the Super Creek stream channel bottom. The colluvium and alluvium deposits are described as silty sand with gravel.

Existing site features that, as a result of past usage, may contribute pollutants to storm water (e.g., toxic materials that are known to have been treated, stored, disposed, spilled, or leaked onto the site) include:

- Generation of fines by mining and processing that could increase sediment load;

- Diesel fuel used to operate the onsite generator and vehicles;

- Oil and grease leakage from vehicles and machinery; and

- A portable toilet.

5.3.4 Erosion Control

Erosion control, also referred to as soil stabilization, consists of source control measures that are designed to prevent soil particles from detaching and becoming transported in storm water runoff. Erosion control BMPs protect the soil surface by covering and/or binding soil particles. This project will incorporate erosion control measures described in Attachment E, and other measures selected by the SWPPP Manager or Owner. This project will implement the following practices for effective temporary and final erosion control during mining and after closure:

- Quarry drainage shall be retained within the quarry pit to the extent practicable, effectively retaining eroded sediments in the active mining area.
- Upper quarry slope erosion will be prevented by installing a "V" ditch above the top of any cut slope greater than 30 feet in height.
- Annual revegetating, if possible, of those quarry slopes that will not be impacted by continuing mining activities will also inhibit erosion.
- Preserve existing vegetation where required and when feasible.
- Implement temporary erosion control measures at regular intervals throughout the defined rainy season to achieve and maintain the disturbed soil area requirements. Implement erosion control prior to the defined rainy season.
- Stabilize non-active areas as soon as feasible after the cessation of mining activities.
- Control erosion in concentrated flow paths by using wattles, waterbars amored with wattles, and a detention basin at the new Northwest Waste Pile Area and, if necessary, the Southwest Waste Pile Area. Description of locations, spacing, and design of these BMP devices are provided in Attachment E.
- Control erosion in the active quarry area using wattles. Description of locations, spacing, and design of the use of wattles is provided in Attachment E.
- Control erosion at the post-SMARA Eastern Waste Slopes by reducing sheet flow velocities using riprap, a perimeter collection channel, and series of detention basins. Description of locations, spacing, and design of these BMPs is provided in Attachment E.
- With input from the project biologist and as appropriate, apply native seed to areas deemed substantially complete by the Owner during the defined rainy season.
- At mine closure, apply permanent erosion control to remaining disturbed soil areas.

Sufficient erosion control materials will be maintained onsite to allow implementation in conformance with Permit requirements and as described in this SWPPP. This includes implementation

requirements for active areas and non-active areas that require deployment before the onset of rain.

Implementation and locations of temporary erosion control BMPs are shown in Attachment E. The BMP Consideration Checklist in Attachment F indicates the BMPs that will be implemented to control erosion on the site; these are:

- EC-1, Planning, Scheduling, and Sequencing;
- EC-1, Monitoring For Rainfall Events;
- EC-2, Preservation of Existing Vegetation;
- EC-4, Revegetate once an area becomes inactive, if possible;
- EC-7, Geotextiles and Mats (reference Attachment E for use);
- EC-9, Earth Dikes and Drainage Swales (reference Attachments E and F);
- EC-10, Velocity Dissipation Devices (reference Attachment E for use);
- EC-11, Slope Drain For Sedimentation Basins (reference Attachment E for use);
- Maintain minimal slopes where possible to reduce sheet flow; and
- Assure Erosion and Sedimentation Control (Attachment E) specifications are followed.

Descriptions, considerations, implementation, inspections, maintenance, and limitations of these BMPs can be downloaded at the California Stormwater Quality Association website (CASQA) at http://www.cabmphandbooks.com/Construction.asp .

5.3.5 Sediment Control

Sediment controls are structural measures that are intended to complement and enhance the selected erosion control measures and reduce sediment discharges from active areas. Sediment controls are designed to intercept and settle out soil particles that have been detached and transported by the force of water. This project will incorporate sediment control measures such as the existing detention basins and other measures selected by the SWPPP Manager or Owner.

Sufficient quantities of temporary sediment control materials will be maintained onsite throughout the duration of the project, to allow implementation of temporary sediment controls in the event of predicted rain, and for rapid response to failures or emergencies, in conformance with other Permit requirements and as described in this SWPPP. This includes implementation requirements for active areas and non-active areas before the onset of rain.

Implementation and locations of temporary sediment control BMPs are described in Attachment E. The BMP Consideration Checklist in Attachment F indicates the BMPs that will be implemented to control sediment on the site; these are:

- SE-1, Silt Fence (reference Attachment E for use)

- SE-2, Sediment Basins (reference Attachment E for modifications to existing sedimentation basins, design, and ongoing use)
- SE-4, Check Dams (reference Attachment E for use)
- SE-5, Fiber Rolls (Straw Wattles) (Reference Attachment E for use)
- SC-40, Erodible Areas (Revegetation after mining is complete in an area, if possible);
- Keep access road graded so that flow stays to the west side away from Super Creek; and
- Assure Erosion and Sedimentation Control (Attachment E) specifications are followed.

Descriptions, considerations, implementation, inspections, maintenance, and limitations of these BMPs can be downloaded at the CASQA website at:

- http://www.cabmphandbooks.com/Construction.asp; and
- http://www.cabmphandbooks.com/Industrial.asp.

5.3.6 Tracking Control

The following BMPs have been selected to reduce sediment tracking from the Site onto private or public roads:

- SE-7, Haul Road Maintenance
- TC-2, Maintain on-site truck circulation roadways and haul road
- TC-2, Grade truck circulation roadways and haul road to minimize flour generation, scrape haul road to move flour to uphill side of road

Nearly all vehicle activity is between the Site and the retail facility located 3.5 miles away, and the sediment generated along the haul road or truck circulation roads does not tend to adhere to vehicle tires. Thus, a tire wash station is not deployed.

Descriptions, considerations, implementation, inspections, maintenance, and limitations of these BMPs can be downloaded at the CASQA website at http://www.cabmphandbooks.com/Construction.asp .

5.3.7 Wind Erosion Control

The following BMPs have been selected to control dust at the Site:

- WE-1, Use of water trucks for wet suppression
- WE-1, Limit site vehicle traffic to 15 mph or less
- WE-1, Stockpiling to minimize surface area of processed ore exposed to wind

Descriptions, considerations, implementation, inspections, maintenance, and limitations of these

BMPs can be downloaded at the CASQA website at http://www.cabmphandbooks.com/Construction.asp .

5.3.8 Non-Storm Water Control

An inventory of activities and potential non-storm water discharges is provided in Section 5.3.1. The BMP Consideration Checklist in Attachment F and the following list indicates the BMPs that have been selected to control non-storm water pollution on the site. Implementation and locations of some non-storm water control BMPs are shown on the WPCDs in Attachment D. These BMPs consist of activities including:

- NS-1, Water Conservation Practices;
- NS-6, Illegal Discharge Detection and Reporting;
- NS-7, Potable Water;
- NS-8, Equipment Cleaning;
- NS-9, Equipment Fueling;
- NS-10, Equipment Maintenance;
- NS-16, Temporary Batch Plants (as applicable to the crusher processing plant); and
- SC-10, Non Storm Water Discharges.

Water is not used in the crushing process. Minor vehicle and equipment maintenance is conducted on-site only when required; maintenance generally occurs off-site at Whitewater's retail facility. When maintenance activities are performed on-site, all waste oil or other hazardous wastes are contained and removed from the Site for off-site disposal.

Descriptions, considerations, implementation, inspections, maintenance, and limitations of these BMPs can be downloaded at the California Stormwater Quality Association website (CASQA) at http://www.cabmphandbooks.com/Construction.asp .

5.3.9 Waste Management and Source Control

An inventory of activities, materials, and wastes is provided in Section 5.3.1. The BMP Consideration Checklist in Attachment F and the following list indicates the BMPs that have been selected to handle materials and control site wastes. These BMPs consist of activities including:

- WM-1, Material Delivery and Storage;
- WM-2, Material Use;

- WM-3, Stockpile Management;
- WM-4, Spill Prevention and Control;
- WM-5, Solid Waste Management;
- WM-6, Hazardous Waste Management;
- WM-7 Contaminated Soil Management;
- WM-9, Sanitary/Septic Waste Management;
- SC-11, Spill, Prevention, Control and Cleanup;
- SC-20, Vehicle and Equipment Fueling;
- SC-22, Vehicle and Equipment Repair;
- SC-30, Outdoor Loading/Unloading;
- SC-31, Outdoor Liquid Container Storage (ASTs);
- SC-32, Outdoor Equipment Operations;
- SC-34, Waste Handling and Disposal; and
- SC-41, Grounds Maintenance.

When maintenance activities are performed on-site, all waste oil or other hazardous wastes are contained and removed from the Site for off-site disposal. Any soils that may become contaminated during project operations will be stockpiled and removed from the Site in accordance with applicable regulations to an approved waste disposal facility.

Descriptions, considerations, implementation, inspections, maintenance, and limitations of these BMPs can be downloaded at the CASQA website at:

- http://www.cabmphandbooks.com/Construction.asp;
- http://www.cabmphandbooks.com/Industrial.asp.

5.4 Water Pollution Control Drawings (WPCDs)

The Water Pollution Control Drawings can be found in Attachment D of the SWPPP. Note also that additional drawings showing erosion and sediment control BMP locations and design are included in Attachment E.

5.5 BMP Maintenance, Inspection, and Repair

Inspections will be conducted as follows:

- Prior to a forecast storm;

- After a rain event that causes runoff from the site or changes to the haul road or truck circulation roads;
- At 24-hour intervals during extended rain events; and
- Monthly during the dry season.

Completed inspection checklists will be kept with the SWPPP. A tracking or follow-up procedure shall follow any inspection that identifies deficiencies in BMPs. A program for Maintenance, Inspection, and Repair of BMPs is shown in Attachment G.

5.6 Post Reclamation Storm Water Management

5.6.1 Post Reclamation Control Practices

The reclamation plan specifies post-mining and reclamation storm water control practices. Once mining is finished, all equipment will be removed. Once the reclamation plan is approved, the Site will be returned back to the BLM.

According to the reclamation plan, drainage will continue to be retained on-site to the extent practical. The natural watershed for the Site directs drainage to Super Creek to the east or to the Whitewater River on the west. The reclamation plan specifies that minimizing off-site drainage flows is a goal of the mining and reclamation activities included in the plan. Additional details on erosion control during and after reclamation are included in the Site's reclamation plan.

5.6.2 Operation/Maintenance after Mine Closure

The post-mining BMPs that are described above will be funded and maintained by Whitewater Rock & Supply Company. The site or facility manager will oversee post-mining BMPs.

Post-mining operations are an integral part of the Mine Reclamation Plan.

5.7 Training

Section 3.5 shows the name of Whitewater's Storm Water Pollution Prevention Manager (SWPPM). This person has received the following training:

- To be acquired

A training log showing formal and informal training of various Site personnel shall be kept and updated accordingly.

5.8 List of Subcontractors

All contractors and subcontractors will be notified of the requirement for storm water management measures during the project. A list of contractors will be maintained and included in the SWPPP. If subcontractors change during the project, the list will be updated accordingly.

Section 6.0: Monitoring Program and Reports

6.1 Site Inspections

The SWPPM will inspect the site prior to a forecast storm, after a rain event that causes runoff from the Site, and at 24-hour intervals during extended rain events. The results of all inspections and assessments will be documented. Copies of the completed inspection checklists will be maintained with the SWPPP. Site inspections conducted for monitoring purposes will be performed using the inspection checklist shown in Attachment H.

The name(s) and contact number(s) of the assigned inspection personnel are listed below:

Inspector: Allan Bankus, Jr. Contact phone: (760) 325-2747

6.2 Non-Compliance Reporting

If a discharge occurs or if the project receives a written notice of non-compliance, Whitewater or its representative will file a written report to the RWQCB within 30 days. Corrective measures will be implemented immediately following the discharge, notice, or order. All discharges will be documented on a Discharge Reporting Log using the example form in Attachment I.

The report to the RWQCB will contain the following items:

- The date, time, location, nature of operation, and type of unauthorized discharge, including the cause or nature of the notice or order;
- The control measures (BMPs) deployed before the discharge event, or prior to receiving notice or order;
- The date of deployment and type of control measures (BMPs) deployed after the discharge event, or after receiving the notice or order, including additional measures installed or planned to reduce or prevent re-occurrence; and
- An implementation and maintenance schedule for any affected BMPs.

6.3 Record Keeping and Reports

Records shall be retained for a minimum of three years for the following items:

- Site inspections
- Compliance certifications
- Discharge reports
- Approved SWPPP document and amendments

6.4 Sampling and Analysis Plan for Sediment

This project does not have the potential to discharge directly to a water body listed as impaired due to Sedimentation/Siltation and/or Turbidity pursuant to Clean Water Act, Section 303(d). Therefore, sampling and analysis for sediment, other than the permit-required parameter, Total Suspended Solids (TSS), is not required.

6.5 Sampling and Analysis Plan for Non-Visible Pollutants

This Sampling and Analysis Plan (SAP) for Non-Visible Pollutants describes the sampling and analysis strategy and schedule for monitoring non-visible pollutants in storm water discharges from the project site and off-site activities directly related to the project, in accordance with the requirements of Section B of the General Permit.

6.5.1 Scope of Monitoring Activities

There are no non-visible pollutants, wastes or activities, as identified in Section 5.3.1, that are potential sources of non-visible pollutants to storm water discharges from the project. The bedrock at the Site, and thus the composition of the waste material, is predominantly metamorphic schist and granitic rock, which are physically and chemically stable materials. Therefore, significant alteration of storm water runoff chemistry is not anticipated from contact with Site bedrock or waste materials.

While diesel and oils are used, they are classified in SWPPPs as a “visible pollutants”. To minimize confusion with existing SWPPP practices and procedures, diesel and oil are not included as non-visible pollutants here, even though they can exist at dissolved concentrations that are not visible to the unaided human eye. Storage, use, and operational locations of the diesel and oil are shown on the WPCDs in Attachment D.

The following existing site features or future site features, as identified in Section 5.3.3, are potential sources of non-visible pollutants to storm water discharges from the project. Locations of existing site features where non-visible pollutants may exist are shown on the WPCDs in Attachment D.

- The actively mined areas have the potential to generate dust which can increase suspended solids load.
- The roads are potential sources of dust that can increase suspended solids load. Additionally, they may contribute non-visible pollutants from vehicle operations.
- Erosion from the inactive eastern tailings slope can increase suspended solids load at the point of discharge after basin #12.
- The diesel tanks, if leaking or if a spill occurred, are potential sources of diesel to storm water runoff.
- The new waste stockpiles will be potential sources of increased suspended solids load.

As shown in the WPCDs (Attachment D), there are no areas of run-on onto the project Site. Therefore, migration of potential off-site pollutants onto the Site via run-on is not anticipated to occur.

Sampling for non-visible pollutants will be conducted when: (1) a breach, leakage, malfunction, or spill is observed; and (2) the leak or spill has not been cleaned up prior to a rain event; and (3) there is the potential for discharge of non-visible pollutants to active runoff.

6.5.2 Monitoring Strategy

Sampling Schedule

Samples for the applicable non-visible pollutant(s) and a sufficiently large uncontaminated background sample shall be collected during the first two hours of discharge from rain events that result in a sufficient discharge for sample collection. Samples shall be collected during daylight hours (sunrise to sunset) and shall be collected regardless of the time of year, status of the site, or day of the week.

In conformance with the U.S. Environmental Protection Agency definition, a minimum of 72 hours of dry weather will be used to distinguish between separate rain events.

Collection of discharge samples for non-visible pollutant monitoring will be triggered when any of the following conditions are observed during the required inspections conducted before or during rain events:

- Materials or wastes containing potential non-visible pollutants that are not stored under watertight conditions. Watertight conditions are defined as (1) storage in a watertight container, (2) storage under a watertight roof or within a building, or (3) protected by temporary cover and containment that prevents storm water contact and runoff from the storage area;
- Materials or wastes containing potential non-visible pollutants that are stored under watertight conditions, but (1) a breach, malfunction, leakage, or spill is observed, (2) the leak or spill is not cleaned up prior to the rain event, and (3) there is the potential for discharge of non-visible pollutants to surface waters or a storm sewer system;
- An operational activity, including but not limited to those in Section 6.5.1, with the potential to contribute non-visible pollutants (1) was occurring during or within 24 hours prior to the rain event, (2) applicable BMPs were observed to be breached, malfunctioning, or improperly implemented, and (3) there is the potential for discharge of non-visible pollutants to surface waters or a storm sewer system;
- Soil amendments that have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil have been applied, and there is the potential for discharge of non-visible pollutants to surface waters or a storm sewer system; or
- Storm water runoff from an area contaminated by historical usage of the site has been observed to combine with storm water runoff from the site, and there is the potential for discharge of non-visible pollutants to surface waters or a storm sewer system.

Sampling Locations and Rationale

Sampling locations are based on locations of discharge, proximity to planned non-visible pollutant storage, occurrence or use, accessibility for sampling, personnel safety, and other factors in

accordance with the applicable requirements in the Permit. Planned sampling locations are shown on Figure 8 of the WPCDs

Three sampling locations have been identified for the collection of samples of runoff from the current existing configuration of the Site. As the new waste stockpiles are developed, additional sampling locations may need to be identified in connection with these piles.

- **Sample Location #1** – this location corresponds to the only existing location of storm water discharge from the Site to an off-site location. The source of discharge at this location is runoff from the inactive eastern tailings slope, and may potentially contain runoff generated from the active mining area if the detention pond in the road overflows into sedimentation basin #1. Runoff at the discharge location is preceded by the series of 10 -12 sedimentation basins where suspended load should be retained in the sedimentation basins. Discharge after basin #12 flows south along the west side of the unpaved access road until it enters Super Creek south of the Site boundary. A sample can be collected at this location from flowing water beyond the south end of basin #12.

- **Sample Location #2** – this location corresponds to an upstream sample location where runoff is considered to represent background conditions. The analytical results from this sample are used for comparison with the discharge sample (Sample Location #1) to identify potentially elevated parameters in runoff leaving the Site. This location also coincides with the headwaters of Super Creek.
- **Sample Location #3** – this location has been identified as a contingency sample location in the event that discharge is not generated at Sample Location #1, or if Sample Location #1 and/or #2 is/are inaccessible at the time of sampling. Sample Location #3 corresponds to the quarry pit where runoff entering the active mining area is retained, and is therefore considered to be representative of site conditions. It should be noted that samples will ideally be collected from Sampling Location #1 and #2 during each sampling event, but this SWPPP also recognizes that Sample Location #1 and #2 may not always be accessible or safe for sampling personnel. Therefore, Sampling Location #3 is included here as a contingency such that sampling and annual reporting can be completed toward compliance with the general industrial permit.

If an operational activity or storm water inspection conducted 24 hours prior to or during a rain event identifies the presence of a material storage, waste storage, or operations area with spills or the potential for the discharge of non-visible pollutants to surface waters or a storm sewer system that was an unplanned location and has not been identified on the WPCDs, sampling locations will be selected using the same rationale as that used to identify planned locations.

The SWPPM will monitor for a predicted rain event, and if one of the triggering conditions is identified during an inspection before, during, or after a storm event, the SWPPM will ensure that adequate sample collection personnel, supplies, and field test equipment for monitoring non-visible pollutants are available and will be mobilized to collect samples on the site in accordance with the sampling schedule.

6.5.3 Monitoring Preparation

The SWPPM will monitor for a predicted rain event, and if one of the triggering conditions is

identified during an inspection before, during, or after a storm event, the SWPPM will ensure that adequate sample collection personnel, supplies, and field test equipment for monitoring non-visible pollutants are available and will be mobilized to collect samples on the site in accordance with the sampling schedule.

6.5.4 Analytical Constituents

Identification of Non-Visible and Visible Pollutants

Table 600-1 lists the specific sources and types of potential non-visible and visible pollutants on the project site and the applicable water quality indicator constituent(s) for that pollutant.

Table 600-1

Potential Non-Visible and Visible Pollutants and Water Quality Indicator Constituents		
Pollutant Source	**Pollutant**	**Water Quality Indicator Constituent**
Diesel and waste oil ASTs, vehicles	Diesel and Oil	Oil & Grease
Soil, Sediment and Dust	Small Particles	Total Suspended Solids

Note: Additional parameters as required by the general industrial permit are also included as water quality indicator constituents including pH and specific conductance.

6.5.5 Sample Collection and Handling

Sample Collection Procedures

Samples of surface water discharge will be collected at the designated sampling locations shown on the WPCDs for observed breaches, malfunctions, leakages, spills, operational areas, and historical site usage areas that triggered the sampling event.

Grab samples will be collected and preserved in accordance with the methods identified in Table 600-2, “Sample Collection, Preservation and Analysis for Monitoring Non-Visible and Visible Pollutants,” provided in Section 6.5.6. Only personnel trained in proper water quality sampling will collect samples.

Samples will be collected by placing a separate lab-provided sample container directly into a stream of water down gradient and within close proximity to the potential non-visible pollutant discharge location. If no specific potential discharge location is known, samples will be limited to the locations shown in the WPCDs (Attachment D). This separate lab-provided sample container will be used to collect water, which will be transferred to lab-provided sample bottles for laboratory analysis. The up gradient and background samples shall be collected first prior to collecting the down gradient to minimize cross-contamination. The sampling personnel will collect the water up gradient of where they are standing. Once the separate lab-provided sample container is filled, the water sample will be poured directly into sample bottles provided by the laboratory for the analyte(s) being monitored.

To maintain sample integrity and prevent cross-contamination, sampling collection personnel will:

- Wear a clean pair of surgical gloves prior to the collection and handling of each sample at each

location;

- Maintain sample bottle integrity by not allowing it to come into contact with any material other than the water sample;
- Discard sample bottles or sample lids that have been dropped onto the ground prior to sample collection;
- Keep the cooler lid closed except for adding samples once samples are placed inside;
- Avoid sampling near a running vehicle where exhaust fumes may impact the sample;
- Do not touch the exposed end of a sampling tube, if applicable;
- Avoid allowing rainwater to drip from rain gear or other surfaces into sample bottles;
- Do not eat, smoke, or drink during sample collection;
- Do not sneeze or cough in the direction of an open sample bottle;
- Minimize the exposure of the samples to direct sunlight, as sunlight may cause biochemical transformation of the sample to take place;
- Decontaminate sampling equipment prior to sample collection using a TSP-soapy water wash, potable water rinse, and final rinse with distilled water; and
- Dispose of decontamination water/soaps appropriately; i.e., not discharge to the storm drain system or receiving water or ground surface at the site.

Sample Handling Procedures

Immediately following collection, sample bottles for laboratory analytical testing will be capped, labeled, documented on a Chain-of-Custody form provided by the analytical laboratory, sealed in a re-sealable storage bag, placed in an ice-chilled cooler, at as near to 4 degrees Celsius as practicable, and delivered within 24 hours to the following California state-certified laboratory:

Laboratory Name:	E.S. Babcock & Sons
Address:	6100 Quail Valley Court Riverside, CA 92507
Telephone Number:	951-653-3351, 951-653-1662 FAX

Sample Documentation Procedures

All original data documented on sample bottle identification labels, Chain-of-Custody forms, Sampling Activity Logs, and Inspection Checklists will be recorded using waterproof ink. These will be considered accountable documents. If an error is made on an accountable document, the individual will make corrections by lining through the error using a single line and entering the correct information. The erroneous information will not be obliterated. All corrections will be initialed and

dated. A copy of the Sampling Activity Log is provided in Attachment J.

Sampling and field analysis activities will be documented using the following:

- Sample Bottle Identification Labels: Sampling personnel will attach an identification label to each sample bottle. At a minimum, the following information will be recorded on the label, as appropriate:
    - Project name
    - Project or account number
    - Unique sample identification number and location
        - [Permit Number]-[Eight digit sample collection date]-[Location]
            - *Example:* 86M04-20081031-Runoff4 for a sample taken in association with this mining operation permit #86M-04 at runoff location number 4 on October 31, 2008
        - Quality assurance/quality control (QA/QC) samples shall be identified similarly using a unique sample number or designation
            - *Example:* 86M04-20081031-DUP1
    - Collection date/time (No time applied to QA/QC sample label)
    - Analysis constituent (e.g., oil & grease, specific conductance, pH, TSS)

- Sampling Activity Logs: A log of sampling events will identify:
    - Sampling date
    - Separate times when samples collected (to nearest minute, incl. QA/QC)
    - Unique sample identification number and location
    - Analysis constituent
    - Name(s) of sampling personnel
    - Weather conditions (including precipitation amount; est. if necessary)
    - Field analysis results
    - Other pertinent data

- Chain-of-Custody (COC) forms: All samples to be analyzed by a laboratory will be accompanied by a COC form provided by the laboratory. Only the sample collectors will sign the COC form over to the lab. COC procedures will be strictly adhered to for QA/QC purposes.

- Storm Water Quality Inspection Checklists: When applicable, the storm water inspector will document on the checklist that samples for non-visible pollutants were taken during a rain event.

6.5.6 Sample Analysis

Samples will be analyzed for the applicable constituents using the analytical methods identified in Table 600-2, “Sample Collection, Preservation and Analysis for Monitoring Non-Visible and Visible Pollutants” in this section and is also included in Attachment K.

Table 600-2
Sample Collection, Preservation and Analysis for Monitoring Non-Visible and Visible Pollutants

Constituent	Analytical Method	Minimum Sample Volume	Sample Bottle	Sample Preservation	Reporting Limit	Maximum Holding Time
Oil & Grease	EPA Method `1664A	1 x 1 L	Glass	Store at 4ºC, H_2SO_4	5.0 mg/L	28 days
Specific Conductance	SM 2510B	1 x 1 L	Polyethylene or Glass	Store at 4ºC	1.0 µmhos/cm	28 days
pH	EPA Method 150.1	1 x 100 mL	Polyethylene	Store at 4ºC	unitless	Immediate
Total Suspended Solids (non- filterable)	EPA Method 160.2/SM 2540	1 x 1 L	Polyethylene	Store at 4ºC	5 mg/L	7 days

Notes:
L = liter
mL = milliliter
EPA = U.S. Environmental Protection Agency
H_2SO_4 = Sulfuric acid, preservative
µmhos/cm = micromhos per centimeter

6.5.7 Quality Assurance/Quality Control

For an initial verification of laboratory or field analysis, duplicate samples will be collected at a rate of 10 percent or 1 duplicate per sampling event, whichever is greater. This will result in one duplicate for each round of sampling, unless more than five ad hoc samples are collected as identified in Section 6.5.2. The duplicate sample will be collected, handled, and analyzed using the same protocols as primary samples. A duplicate sample will be collected at the selected location (randomize between events) immediately after the primary sample has been collected. Duplicates will be collected where site impacts are likely, not on the background sample. Duplicate samples will not influence any evaluations or conclusions; however, they will be used as a check on laboratory quality assurance.

6.5.8 Data Management and Reporting

A copy of all water quality analytical results and QA/QC data will be included in the onsite SWPPP within 5 days of sampling (for field analyses) and within 30 days (for laboratory analyses). Lab reports and COCs will be reviewed for consistency between lab methods, sample identifications, dates, and times for both primary samples and QA/QC samples. All data, including COC forms and Sampling Activity Logs, will be kept with the SWPPP.

6.5.9 Data Evaluation

An evaluation of the water quality sample analytical results, including figures with sample locations, the water quality analytical results, and the QA/QC data, will be included in the onsite SWPPP. Should the runoff/down gradient sample show an increased level of the tested analyte relative to the background sample, the BMPs, site conditions, and surrounding influences will be assessed to determine the probable cause for the increase. As determined by the site and data evaluation, appropriate BMPs will be repaired or modified to mitigate discharges of non-visual pollutant concentrations. Any revisions to the BMPs will be recorded as an amendment to the SWPPP.

6.5.10 Change of Conditions

Whenever SWPPP monitoring, pursuant to Section B of the General Permit, indicates a change in site conditions that might affect the appropriateness of sampling locations or introduce additional non-visible pollutants of concern, testing protocols will be revised accordingly. All such revisions will be recorded as amendments to the SWPPP.

ATTACHMENT A

ANNUAL CERTIFICATION OF COMPLIANCE FORM

ANNUAL CERTIFICATION OF COMPLIANCE FORM

Project Name: Super Creek Quarry, Section 36, T2S, R3E, Desert Hot Springs, California, WDID # 7 33I013580

Project Number: Riverside County Mining/Reclamation Plan No. 137 (CA Mine ID #91-33-0003)

Description of Work: Mining

Work Now in Progress: _____

Work Planned for Next 12 Months: _____

_____

Preparer Certification of the
Storm Water Pollution Prevention Plan Amendment

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

_____ _____
Owner/Developer/Contractor's Signature Date

_____ _____
Preparer's Name and Title Telephone Number

ATTACHMENT B

NOTICE OF INTENT (NOI)

WDID # 7 33I013580

State of California
State Water Resources Control Board

002728-12-2-95

NOTICE OF INTENT

ITEM 2

TO COMPLY WITH THE TERMS OF THE
GENERAL PERMIT TO DISCHARGE STORM WATER
ASSOCIATED WITH INDUSTRIAL ACTIVITY (WQ ORDER NO. 97-03-DWQ)

SECTION I. NOI STATUS (please check only one box)

A. [X] New Permittee B. [ ] Change of Information - WDID #

SECTION II. FACILITY OPERATOR INFORMATION (See Instructions)

A. NAME Whitewater Rock & Supply Co.	Phone: (760) 325-2747	
Mailing Address: P.O. Box 254		
City: Whitewater		
Contact Person: Al Bankus	State: CA	Zip Code: 92282
B. OPERATOR TYPE: (check one) 1. [X] Private 2. [ ] City 3. [ ] County 4. [ ] State 5. [ ] Federal 6. [ ] Special District 7. [ ] Gov. Combo		

SECTION III. FACILITY SITE INFORMATION

A. FACILITY NAME Super Creek Quarry		Phone: (760) 325-2747
Facility Location: Super Creek		County: Riverside
City: N/A	State: CA	Zip Code: 92282
B. MAILING ADDRESS Whitewater Rock & Supply Co.		
City: P.O. Box 254, Whitewater, CA 92282		
Contact Person: Al Bankus		
C. FACILITY INFORMATION Total Size of Site: 46.1 (check one) Acres [X] Sq. Ft. [ ]		Percent of Site Impervious (including rooftops) Less than one %

D. SIC CODES(S) OF REGULATED ACTIVITY:
1429

E. REGULATED ACTIVITY (describe each SIC code):
Mining, crushing, screening of broken stone at Riverside County permitted Super Creek Quarry site.

SECTION IV. ADDRESS FOR CORRESPONDENCE

[X] Facility Operator Address [ ] Facility Mailing Address [ ] Both

SECTION V. BILLING ADDRESS INFORMATION

SEND BILL TO: [X] Facility Operator (Section II) [ ] Facility (Section III) [ ] Other (enter information below)		
Name:		Phone:
Mailing Address:		
City:	State CA	Zip Code:
Contact Person:		

SECTION VI. RECEIVING WATER INFORMATION

Your facility's storm water discharges flow (check one) [ ] directly OR [X] indirectly to waters of the United States.

Name of receiving water: Super Creek intermittent dry streambed
(river, lake, stream, ocean, etc.)

SECTION VII. IMPLEMENTATION OF PERMIT REQUIREMENTS

A. STORM WATER POLLUTION PREVENTION PLAN (SWPPP) (check one)
[X] A SWPPP has been prepared for this facility and is available for review.
[ ] A SWPPP will be prepared and ready for review by (enter date):

B. MONITORING PROGRAM (check one)
[X] A Monitoring Program has been prepared for this facility and is available for review.
[ ] A Monitoring Program will be prepared and ready for review by (enter date):

C. PERMIT COMPLIANCE RESPONSIBILITY
Has a person been assigned responsibility for:
1. Inspecting the facility throughout the year to identify any potential pollution problems?
2. Collecting storm water samples and having them analyzed?
3. Preparing and submitting an annual report by July 1 of each year?

SECTION VIIII. REGULATORY STATUS (Go to Section IX if not applicable)

A. WASTE DISCHARGE REQUIREMENT ORDER NUMBER: B. NPDES PERMIT CA:

SECTION IX. SITE MAP

I HAVE ENCLOSED A SITE MAP YES [X] A new NOI submitted without site map will be rejected.

SECTION X. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the provisions of the permit, including the development and implemenation of a Storm Water Pollution Prevention Plan and a Monitoring Program Plan, will be complied with."

Printed Name: Al Bankus

Signature: Allen Bankus Date: 12/4/97

Title: Pres

State Water Resources Control Board

Linda S. Adams
Secretary for Environmental Protection

Division of Water Quality
1001 I Street • Sacramento, California 95814 • (916) 341-5538
Mailing Address:P.O. Box 1977 • Sacramento, California • 95812-1977
FAX (916) 341-5543 • Internet Address: http://www.waterboards.ca.gov/stormwtr/index.html
Email Address: stormwater@waterboards.ca.gov

Arnold Schwarzenegger
Governor

Date Processed: 12/23/1997

Whitewater Rock & Supply Co
58645 Old Hwy Rd 60
Whitewater, CA 92282

RECEIPT OF YOUR NOTICE OF INTENT

The State Water Resources Control Board (State Water Board) has received and processed your NOTICE OF INTENT TO COMPLY WITH THE TERMS OF THE GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY. Accordingly, you are required to comply with the permit requirements.

The WDID identification number: **7 33I013580.** Please use this number in any future communications regarding this permit.

FACILITY DESCRIPTION

OPERATOR:	Whitewater Rock & Supply Co
FACILITY:	Whitewater Rock & Supply Co
COUNTY:	Riverside
FACILITY LOCATION:	Super Creek White Water, CA 92282

When the operator changes (i. e. the business was bought or transferred), a new Notice of Intent (NOI), site map, and fee must be submitted by the new operator. As the previous operator, you are required to submit a Notice of Termination (NOT) to the Regional Water Board stating that your facility is not being operated by you and that you no longer need to be covered by the General Permit. Unless notified, you will continue to be invoiced for the annual fee each **January**.

If you have any questions regarding permit requirements, please contact your Regional Water Board at (760) 346-7491. Please visit the storm water web page at www.waterboards.ca.gov/stormwtr/index.html to obtain storm water related information and forms.

Sincerely,

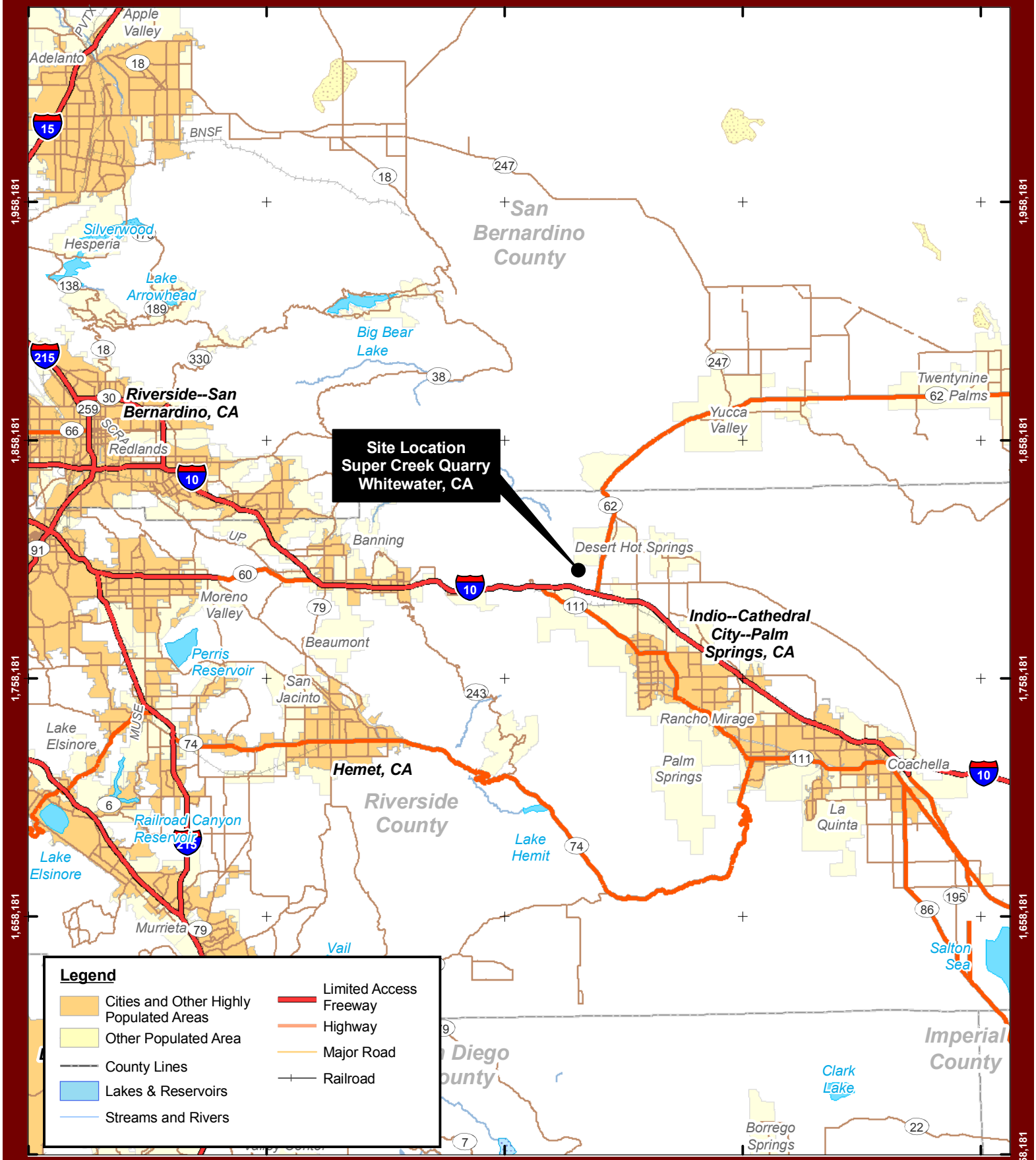
Storm Water Section
Division of Water Quality

California Environmental Protection Agency

ATTACHMENT C

VICINITY MAP

No warranty is made by Stantec as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards.
This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and or information. Coordinates: California State Plane Zone V, NAD83 Datum, Feet



Geographic Information Systems

Randy Edwards/ Stantec

Printed: 4/30/2009 3:41 PM
ArcGIS Project File: Super Creek Quarry - SWPPP - Figure 1 (Site Location Map).mxd

Miles
0 10 20
1 inch equals 10 miles

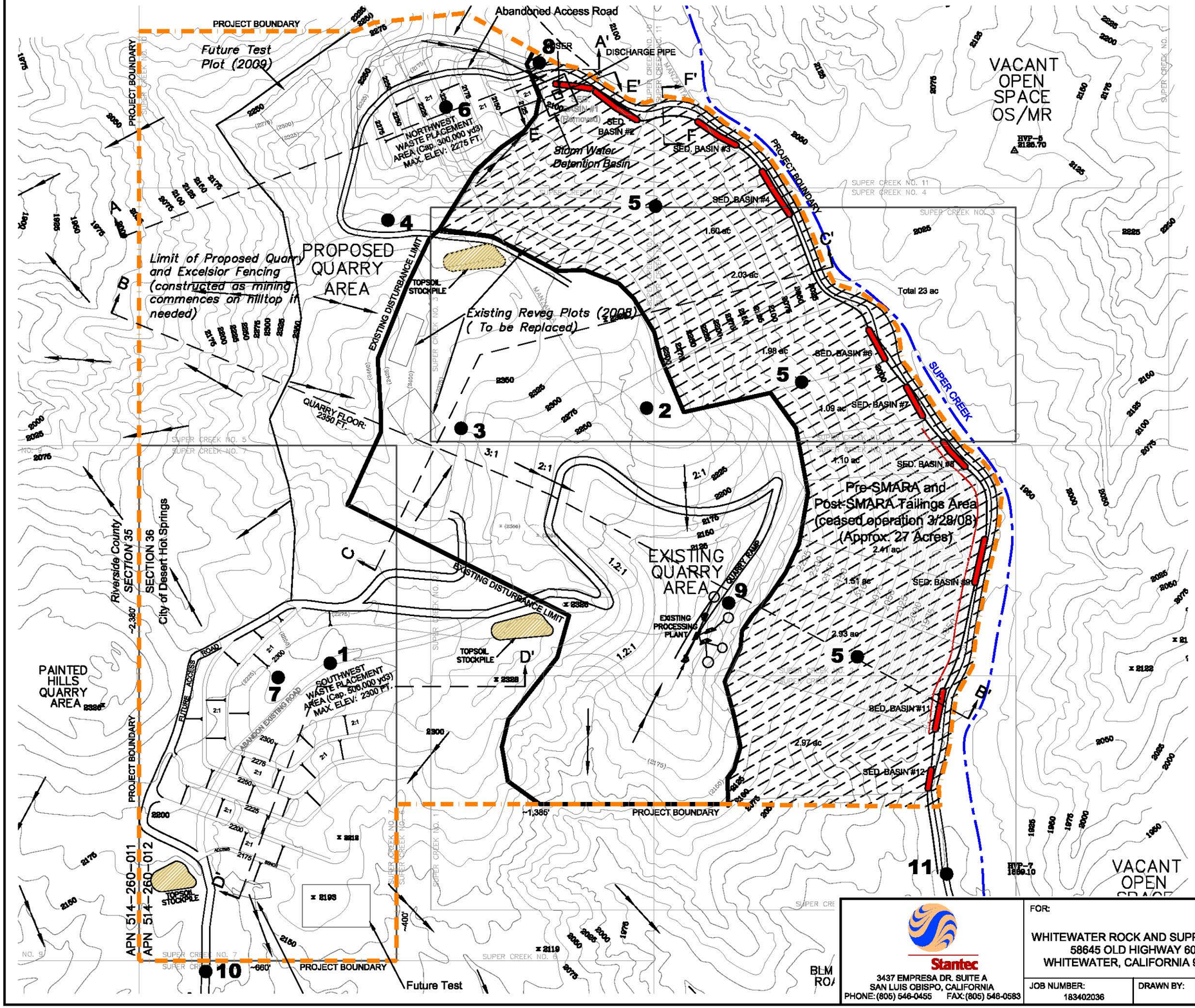
Figure 1
Site Location Map

Whitewater Rock and Supply Co./ Super Creek Quarry / Whitewater, CA / SWPPP

Stantec
290 Conejo Ridge Avenue Suite 200 Thousand Oaks, CA 91361 Phone 805.230.1266 Fax 805.230.1277 www.stantec.com

ATTACHMENT D

WATER POLLUTION CONTROL DRAWINGS



GENERAL FEATURES

- Project Boundary
- Existing Disturbance Limit
- Surface Water Flow Direction
- B — B' Cross Section Location
- Existing Topography Contour
- Existing Sedimentation Basin
- Super Creek Intermittent Stream

SWPPP FEATURES

1 ● - 1,000-gallon diesel AST
- 400-gallon waste oil AST (containing approximately 20 gallons)
- portable toilet

2 ● - 400-gallon diesel AST
- Generator
- Crushers
- 10,000-gallon water AST
- Yellow equipment
- Mobile water truck
- Mobile diesel AST truck

3 ● - Current quarry pit and storm water retention pond with drainage ditches

4 ● - Retention pond along dirt road

5 ● - Eastern tailings slope

6 ● - Proposed Northwest Waste Placement Area

7 ● - Proposed Southwest Waste Placement Area

8 ● - Proposed retention pond

9 ● - New waste pile in former quarry pit

10 ● - Site access road from retail facility

11 ● - Access road from wind farm

N

0 250 500

SCALE 1" = 250 FEET

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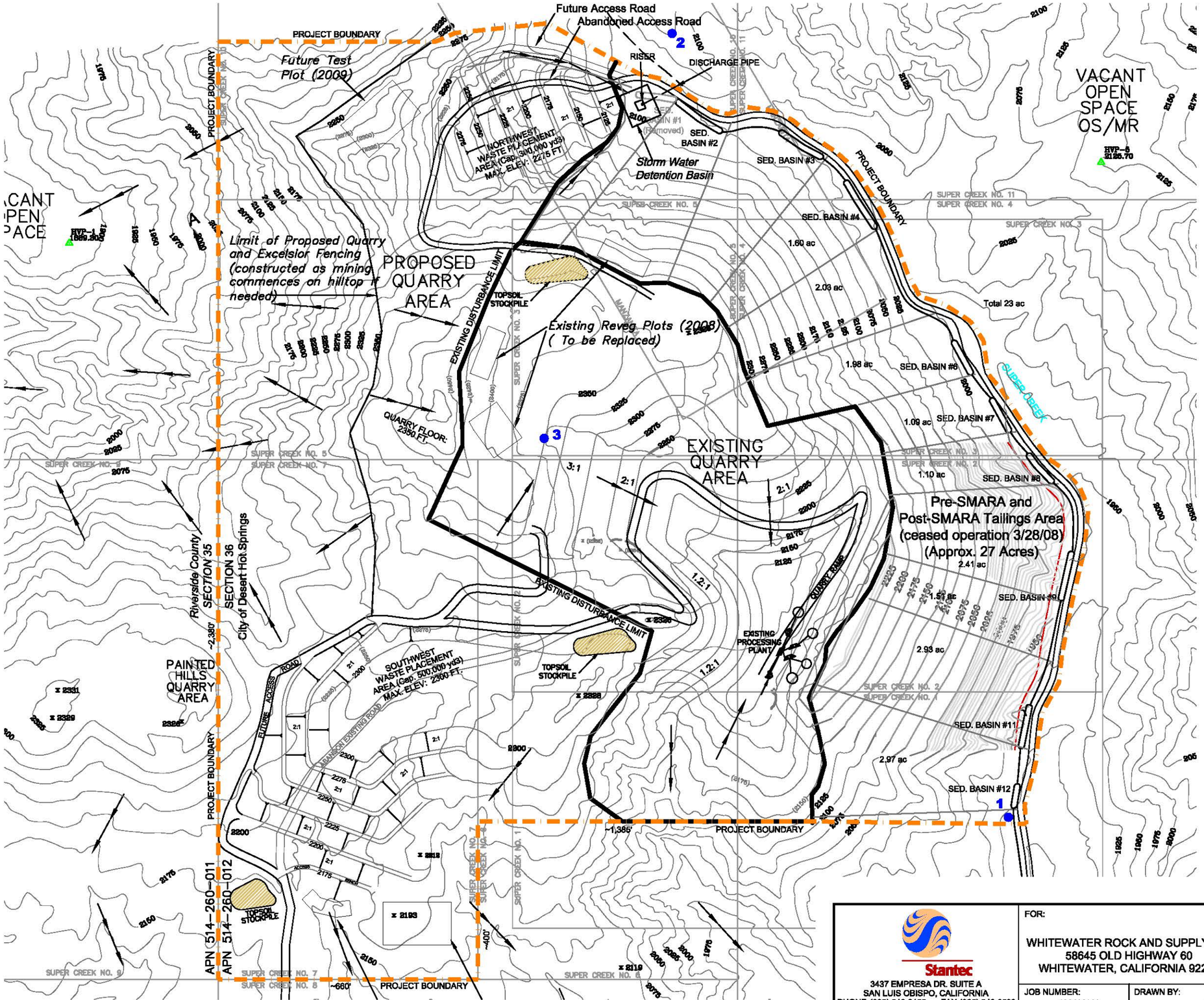
Stantec
3437 EMPRESA DR. SUITE A
SAN LUIS OBISPO, CALIFORNIA
PHONE: (805) 546-0455 FAX: (805) 546-0583

FOR:
WHITEWATER ROCK AND SUPPLY CO.
58645 OLD HIGHWAY 60
WHITEWATER, CALIFORNIA 92282

SITE LAYOUT MAP

FIGURE: 2

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
183402036	SCS	TP	TP	4/30/2009



GENERAL FEATURES

- Storm Water Sample Location
- Project Boundary
- Surface Water Flow Direction

N

0 250 500

SCALE 1" = 250 FEET

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3437 EMPRESA DR. SUITE A
SAN LUIS OBISPO, CALIFORNIA
PHONE: (805) 546-0455 FAX: (805) 546-0583

FOR:
WHITEWATER ROCK AND SUPPLY CO.
58645 OLD HIGHWAY 60
WHITEWATER, CALIFORNIA 92282

STORM WATER SAMPLE LOCATION MAP

FIGURE: 3

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
183402036	SCS	TP	TP	4/30/2009

1. View of 1,000-gallon diesel AST, 400-gallon waste oil AST, and portable toilet (match with Location #1 depicted on Figure 2).

2. Close-up view of 400-gallon waste AST. AST is planned for removal from the Site (match with Location #1 on Figure 2).

Project No. 183402036	**Site Photographs**	Stantec
Whitewater Rock Co. Super Creek Quarry Whitewater, California	**Date Taken: April 21, 2009**	

3. Close-up view of 1,000-gallon diesel AST with containment berm (match with Location #1 on Figure 2).

4. View of 10,000-gallon water tank, 400-gallon diesel tank and generator (match with Location #2 on Figure 2).

Project No. 183402036	**Site Photographs**	Stantec
Whitewater Rock Co. Super Creek Quarry Whitewater, California	**Date Taken: April 21, 2009**	

5. View of crusher processing plant looking southeast with the water tank and generator visible in the left background (match with Location #2 on Figure 2).

6. View of crusher processing plant looking northwest (generator is located to the right out of view) (match with Location #2 on Figure 2).

Project No. 183402036	**Site Photographs**	Stantec
Whitewater Rock Co. Super Creek Quarry Whitewater, California	**Date Taken: April 21, 2009**	

7. View of truck-mounted mobile diesel AST parked along haul road south of crusher processing area (match with Location #2 on Figure 2).

8. View of mobile water truck used for dust suppression parked south of crusher processing area (match with Location #2 on Figure 2).

Project No. 183402036	**Site Photographs**	Stantec
Whitewater Rock Co. Super Creek Quarry Whitewater, California	**Date Taken: April 21, 2009**	

9. View of quarry pit retention pond with drainage ditches (match with Location #3 on Figure 2).

10. View of detention pond along dirt road (match with Location #4 on Figure 2).

Project No. 183402036	**Site Photographs**	Stantec
Whitewater Rock Co. Super Creek Quarry Whitewater, California	**Date Taken: April 21, 2009**	

11. Close-up view of mud cracks at detention pond along dirt road (match with Location #4 on Figure 2).

12. View from detention pond in road looking down to sedimentation basin #1 (match with Location #4 on Figure 2).

Project No. 183402036	**Site Photographs**	Stantec
Whitewater Rock Co. Super Creek Quarry Whitewater, California	**Date Taken: April 21, 2009**	

13. Close-up view of sedimentation basin #1 looking northwest (match with Location #8 vicinity on Figure 2).

14. View new waste pile placed in former quarry pit area (match with Location #9 on Figure 2).

Project No. 183402036	**Site Photographs**	Stantec
Whitewater Rock Co. Super Creek Quarry Whitewater, California	**Date Taken: April 21, 2009**	

15. Headwaters of Super Creek and vicinity of background storm water sampling location (match with Sample Location #2 on Figure 3).

16. Close-up view of background storm water sample location (photo taken standing just beyond the dirt road (match with Sample Location #2 on Figure 3).

Project No. 183402036	**Site Photographs**	Stantec
Whitewater Rock Co. Super Creek Quarry Whitewater, California	**Date Taken: April 21, 2009**	

17. View of storm water discharge location at south end of sedimentation basin #12 and along the west side of the BLM access road (match with Sample Location #1 on Figure 3).

18. Close-up view of quarry pit retention pond contingency sampling location (match with Sample Location #3 on Figure 3).

Project No. 183402036	**Site Photographs**	Stantec
Whitewater Rock Co. Super Creek Quarry Whitewater, California	**Date Taken: April 21, 2009**	

ATTACHMENT E

EROSION AND SEDIMENTATION CONTROLS

Stantec Consulting Corporation
290 Conejo Ridge Avenue
Thousand Oaks CA 91361
Tel: (805) 230-1266
Fax: (805) 230-1277

April 30, 2009

Whitewater Rock & Supply Company
58645 Old Highway 60
Whitewater, California 92282

Attention: **Allan Bankus**

Dear Mr. Bankus:

Reference: **Super Creek Quarry, Amended Erosion Control Designs**

Stantec Consulting Inc. (Stantec) is pleased to provide Whitewater Rock & Supply Company (Whitewater) this revision to the August 29, 2008 Erosion Control Designs for the above referenced facility (Figure 1). The designs apply to both the proposed future waste placement areas and the existing quarry demarcated by Lilburn Corporation's site drawings (Figure 2). This work is required as part of the post-reclamation planning required of the mine by the State of California, Department of Conservation, Office of Mine Reclamation (OMR) under California Code of Regulations Title 14, Section 3503(d). Amendments and revisions to the August 29, 2008 Erosion Control Designs were made in response to comments from the State Mining and Geology Board in their letter dated February 17, 2009. The amendments primarily address erosion and sedimentation controls for the existing eastern waste material slope, supporting design criteria for previously proposed structures, and recommendations for performance evaluation and maintenance of proposed erosion control Best Management Practices (BMPs).

DESIGN CONSIDERATIONS

Site-specific physical factors considered during design of the proposed erosion and sediment control features are identified below and described in the following sections:

- Grain sizes of the material,
- Geomorphology of the sub-basins,
- Material composition in the waste piles, and
- Temporal dynamics of the waste piles' growth.

Waste Pile Grain Size

The median grain size of the quarry waste material appears to correspond to sand, however, the material contains a gradation ranging from small gravel down to silt and clay. When disturbed, the majority of the material is readily eroded or entrained in surface water runoff. Thus, the primary goal of erosion control efforts is to reduce runoff flow velocities on the waste placement areas (piles).

Native Surface Grain Size

The native ground surface is predominantly composed of granitic and metamorphic bedrock. Bedrock will also be the final surface composition of much of the existing quarry area. Because the native surface and final surface will be of the same bedrock material, there is little likelihood that final surface will be subject to significantly greater rates of erosion over time. However, in the short-term, some erosion is assumed potentially significant in the form of fines left by the mining activity.

Geomorphology

As shown on Figure 2, there are four sub-basins in which erosion control is to be applied, the: 1) proposed northwest waste pile; 2) existing quarry area; 3) proposed southwest waste pile; and 4) the post-SMARA regulation (post-1975) portions of the east waste placement area, also referred to as the east slope. Additionally, erosion control is to be applied to the west of peaks intended for future mining. The geomorphology of the sub-basins results in rapid time of concentration (short time-frame from on-set of rainfall to peak runoff), high velocities due to steep gradients, large areas of bare native rock which minimizes infiltration and pre-wetting effects (except in the waste piles themselves), and relatively low flow volumes onto or through the piles due to the sizes of the sub-basins. The waste piles have similar geomorphology to one another, which is substantially different from the existing quarry. Direct precipitation and resulting sheet runoff and concentrated flow across the waste piles can result in minor to moderate erosion, as observable on historic waste surfaces in the area. This runoff will entrain fines as suspended sediment, with increasing capacity as flow velocities increase. Thus, it is overland flow that poses the primary conduit by which material may enter the native drainage channels.

At the existing quarry, the final surface is bedrock. Little infiltration will occur on this surface and a low generation potential for additional sediments will exist once the earliest rains have washed the recently worked surface. Nevertheless, some control of overland flow velocities should be applied.

Material Composition

Specifically, the waste material is predominantly metamorphic schist and granitic rock, which are physically and chemically stable materials. Thus, controls that address physical capture should alleviate potential effects of erosion. Floral success will enhance the ecosystem's ability to filter fines. Additional flora has good potential on the waste piles *where it can be established*, but low potential on the existing quarry bedrock.

Pile Growth and Interim Actions

Lastly, the waste pile(s) will be generated in lifts based on quarrying activities (with the exception of the inactive east waste placement area, which is not to receive more waste and is undergoing reclamation actions). Thus, the active waste pile(s) will grow in lifts. This stepped growth of the waste pile(s) can be used to apply interim actions, such as a sequence of filter material applications. An advantage of this approach is that controls are being applied after new material is deposited.

The top of the hill is planned for excavation. The excavation process will likely cast some rock to the west side of the existing peak.

EROSION CONTROLS

The design herein addresses: 1) runoff onto and over the two proposed waste piles, 2) runoff within the existing quarry area, 3) future mining cast-off and runoff on the west side of the existing quarry area, and 4) runoff and erosion from the inactive eastern waste material slopes. The primary control devices proposed are wattles, water bars, excelsior fencing, detention basins, and rip-rap.

North Quarry Area

To address runoff at the Northwest Waste Pile and the proposed north quarry area, velocity control is the proposed through the use of wattles, waterbars armored with wattles, and a detention basin (see Figure 3, Cross-Section A-A' on Figure 4, and Figure 5). Velocity control devices will break up the area into small micro-drainages, allowing use of smaller control structures, greater infiltration rates, lowered erosion rates, and thus smaller sediment loads.

A series of wattles and waterbars armored with wattles are proposed to reduce flow velocities. These are positioned to shunt water at low flow rates to the sides of the pile. Since the wattles located between the

waterbars are less robust per se than the waterbars armored with wattles, they should be of larger diameter (e.g., 8 inch). The wattles used to armor the waterbars would be 6 inch diameter and placed in the furrow with wood stakes every 5 feet. The ends of the wattles should be lapped uphill of the next wattle outboard of the central axis of the pile. Waterbars should be 1 to 2 foot high mounds along nearly continuous elevations yet having an approximate 100:1 slope, with the high near the pile central axis.

During generation of the pile, wattles should be placed on the sloped face as it builds and wattles or silt fences placed on the transient, near-horizontal surface at 20 to 30 foot vertical intervals of pile growth (Figure 5). The use of wattles or silt fences on the transient surfaces, that subsequently are buried, is intended to minimize interim erosion from both precipitation and wind. These wattles, which will become buried as the waste pile grows, can be 6-inch diameter and staked on 10-foot centers.

Quarrying the peak immediately west of the northwest waste pile may produce cast-off on the west side. To address this cast-off as necessary, and to address west- and northward-bound runoff, “excelsior fencing” is proposed as necessary at about the elevation line of 2,175 feet (Figures 2, 3 and 5). This fencing could be vertically arrayed double wire net excelsior mat with either coconut or other plant fiber content (such as jute or straw). Since excelsior mat is more effective with larger particles, erosion control for small particles will be addressed by placing a 6 inch wattle at the upgradient base of the fencing. In places where flows concentrate, there should be two fences in parallel, each with a wattle at its upgradient base. Additionally, in those locations of most concentrated flow, a third wattle (6-inch) should be placed uphill of the parallel fences.

The proposed fence location appears to be comprised of exposed bedrock. Thus, anchoring of erosion control devices will be a challenge. The excelsior fencing could be staked to the ground using ½ inch diameter rebar. Rebar installation would likely require pre-drilling holes for their insertion into the bedrock. The double net excelsior mat could then be pushed directly on top of the rebar such that the wire meshes on the opposite faces straddle the rebar. The mat would be lashed to the rebar with wire or jute string, creating a fence.

The base of the fence could have its erosion control improved by placement of a 6-inch diameter wattle at its uphill side. The wattle would be held in place using staples that would be affixed to the rebar stakes. This may require bending the stakes or wiring the stake point to the rebar. Wattles not against a fence would require staking as described for the excelsior fence.

To collect flow departing the pile from entering Super Creek directly, a detention basin is proposed (Figures 3 and 5). The detention basin’s inlet should be rip-rap-lined to accommodate the concentrated flow width and sized based on flow velocity. The estimated drainage area is 8.14 acres (354,370 ft^2). Using design recommendations presented in the Riverside County Flood Control District Hydrology Manual, using the 25-year return period design storm for a 1 hour duration, the estimated flow into the basin is calculated at approximately 8.8 cubic foot/second (cfs). The estimated volume of runoff is 0.72 acre-feet. The basin should include a corrugated metal pipe (CMP) riser for dewatering in the event rainfall exceeds the design storm. A rip-rap lined emergency spillway should also be included in the basin design. The basin should have a capacity to contain the design storm to the depth of the riser. A minimum of one foot elevation should separate the riser inlet from the rip-rap lined emergency spillway. For the purposes of this report, the basin should have a footprint area of 500 square feet and a riser depth of 13 feet. Side slopes of 2-feet horizontal to one-foot vertical are recommended. Rip-rap should be placed at all stormwater inlet points into the basin. The 24-inch minimum diameter CMP riser should be adequately supported at the base and fortified with rip-rap to withstand potential impacts from sediment and turbulence. The pipe should discharge beneath the access road and into Super Creek. Rip-rap should be placed at the pipe outlet to prevent scour within the creek channel. Overflow from the emergency spillway should be directed into the existing series of sedimentation basins and channels along the east post SMARA waste slopes. A conceptual design for the basin is presented on Figure 4, Cross-Section E-E'). It should be noted that these details are presented for conceptual purposes and not for construction purposes. All grades and elevations will need to be field verified prior to preparing construction drawings.

Existing Quarry Area

Due to the proposed mined surface shape, there is no ready means to divert upland flow out of the Existing Quarry Area (Figure 2). Additionally, the final surface is anticipated to be bedrock. While short-term sediment load is probable from fines left by the mining activity, once the thin layer of loose fines is eroded, bulk rock will eventually dominate the surface. The native bulk rock is not highly erodible. Thus, the proposed erosion control addresses the earliest precipitation events and is not intended to remain present in the long-term (decades).

Wattles are proposed as the sole means to control erosion within the Existing Quarry Area. While wattles are relatively short lived, they should hold up for the time-frame in which the majority of fine material may erode. Wattle spacing is shown in Figures 2 and 6. Spacing is irregular with higher density where surface gradients are higher. Wattles are to follow along lines of continuous elevation. A few extra short lengths of wattle are recommended in the areas where water will concentrate.

Since the mined surface will be predominantly bedrock, wattles should be fixed using ½ inch-diameter rebar stakes where needed. Their installation may require pre-drilling holes for their insertion into the bedrock. The wattles can not be partially buried, as is done in soil. This could result in water flowing under them between staked locations. One to two rebar rods of maximal length (depending on the curvature in the slope) should be laid on the top of the wattles. These lengths of rebar are intended to provide weight and stiffen the wattles, reducing the chance of water flowing between them and the bedrock. The rebar rods should be attached to the rebar stakes using either baling wire or clamps (such as hose clamps) while downward pressure is applied on the rod.

As the Existing Quarry Area is worked, some cast-off may occur on the west side, beneath the current elevation high above 2,475 feet. To address this potential cast-off, and to address potential westward-bound runoff, excelsior fencing described above is proposed at about the elevation line of 2,275 feet (Figures 2 and 6).

Southwest Waste Pile

To address runoff, velocity control is proposed through the use of wattles, water bars armored with wattles, and a detention basin (Figures 2 and 7). As with the Northwest Waste Pile, velocity control devices will break up the area into small micro-drainages, allowing use of smaller control structures, greater infiltration rates, lowered erosion rates, and thus smaller sediment loads. The same methods as used for the Northwest Waste Pile (described above) should be applied to the Southwest Waste Pile, with the exception of the detention basin design.

Due to the narrower passage for overland flow at the toe of the Southwest Waste Pile, the detention basin design differs from the Northwest Waste Pile. The topographic narrowing below the toe of this pile allows for creation of a detention basin by building a small rip-rap dam. Since retention of stormwater in this detention basin depends on the permeability of the rip-rap, matting should be buried beneath the outermost layer of rip-rap on the upgradient side of the dam to reduce its permeability. The dam will still pass water, though at reduced velocities. To increase the efficiency of the rip-rap in reducing flow through its mass, it should be built with gravel filled in its interstitial spaces.

The drainage area for the southwest waste pile is 10.5 acres (459,054 ft^2). Assuming a worst-case rainfall of 2 inches over 1 hour during a 100-year storm event (NOAA Atlas 2), with 100% runoff flow would be 21.3 cfs. Rip-rap of 14- to 24-inch nominal diameter with anchor rock of 36-inch nominal diameter (at 10% of composition) is proposed.

East Post-SMARA Waste Material Slopes

Active deposition of waste material onto the eastern waste placement area was terminated in March 2008. The waste material slopes can be divided into both pre-SMARA jurisdictional and SMARA regulated sections. The pre-SMARA waste material was deposited prior to the 1975 promulgation of SMARA regulations and is not subject to the current reclamation plan requirements. The erosion control designs discussed herein are aimed at the Post-SMARA portions of the slope. However, it should be noted that the Pre-SMARA areas show evidence of variation in slope, the gradual establishment of flora, and thus, the development of micro-habitats that are conducive to naturally-developed erosion control. Successes observed in the Pre-SMARA areas, where time and natural processes have been allowed to proceed, should be applied to the erosion controls implemented for the Post-SMARA areas.

The eastern waste material slopes are comprised of reject material from the screening process which produces the 3/4-inch and 3/8-inch decorative rock product. The waste material consists of granular rock fragments less than 0.35-inches in diameter, well-graded sand, and 10-15% fines (silt and clay). When wetted, the material forms a crust of fine material at the surface which is moderately hard. In standing water such as a basin, the coarse fraction settles rapidly, leaving a surface horizon of silt and clay which is subject to broad, deep mudcracking upon desiccation.

The slope of the east waste placement areas varies from approximately 1.5 to 1.7:1 (H/V) and achieves heights on average of approximately 300 vertical feet (Figure 4, Cross-Section C-C'). Access by heavy equipment is not considered practicable. Accordingly, erosion and sedimentation controls for the post-SMARA portions of the east slopes will focus primarily on runoff flow velocity reduction via rip-rap and a perimeter collection channel and series of detention basins along the inside edge of the access road at the base of the slope. These basins are designed to capture sedimentation from the slopes and to protect the road and drainage.

Rip-rap ranging in size from less than 0.25 ton to 1.0 ton was previously placed along the base of the eastern waste material slopes where an adequate bench is present between the toe of the slope and the access road along Super Creek (Photographs 1 and 2). Where closely spaced, the rip-rap has reduced runoff velocity sufficiently to allow deposition of entrained sediment which has promoted establishment of native grasses and brush. In some locations, the rip-rap is too widely spaced and not adequately graded to significantly mitigate runoff velocity before entering the basins or the interceptor drainage channel along the inside edge of the access road. Placement of additional rip-rap is proposed where an adequate bench is present and access to heavy equipment is available. Rip-rap sizing requirements are based on shallow-depth runoff velocity calculations provided by the Federal Highway Administration (FHWA, Circular 22) and design recommendations provided in the Riverside County Flood Control District Hydrology Manual. The calculated peak runoff flow velocity near the base of the slope is up to 8.5 feet per second (ft/s). Based on the calculated flow velocity, the design size for the rip-rap is 0.25 tons (D50 approximately 20-24 inches diameter). Larger rip-rap, up to 1.5 X D50 can be used to create a buttress against which smaller rip-rap can be placed on the upslope side to fill small voids. The thickness of the rip-rap layer will vary depending on the estimated accumulation of sediment, but at a minimum should be 2.25 X D50.

The access road along Super Creek is bermed adjacent to the creek and the roadbed is angled inward toward the waste material slope. A drainage channel along the inside of the road intercepts runoff from the slopes and conveys flows downstream through a series of narrow detention basins and along the inside edge of the road to a point where the gradient flattens. The conveyance channel joins Super Creek at the road crossing located approximately 350 feet downstream of the southern quarry project boundary. Observation of the diversion channel and berms indicates that they are currently capable of preventing runoff and entrained sediment from entering Super Creek directly from slope runoff.

For design purposes to evaluate basin sizing, the 25-year return period, 1-hour intensity (25-yr/1-hr) storm event was selected, which exceeds the minimum regulatory standard cited in 14 CCR Section 3706(d). For the site location, the 25-yr/1-hr storm produces 1.21 inches of rain (Riverside County Flood Control

District Hydrology Manual, 1978). Using the 23-acre drainage area which comprises the entire (pre- and post-SMARA) eastern waste material slope and a runoff coefficient of 89%, the calculated runoff from the design storm is approximately 88,702 cubic feet, or 2.04 acre-feet.

The existing sedimentation basins along the Super Creek access road lack the combined capacity to wholly retain the design storm runoff but do provide for detention and sediment deposition. The presence of accumulated sediments and mudcracks in the basins attest to the stormwater detention capability of the basins (Photographs 3 and 4). Based on the current dimensions of the basins and sediment accumulation, the collective capacity of the basins is approximately 25% of the design storm runoff volume at this time.

The ability to enlarge the basins to accommodate the design storm event is limited by the adjacent toe of the waste slope, proximity of Super Creek and the existing fall along the access road and steep side-slopes of the basins. However, some enlargement, where feasible (including removal of existing sediment), could increase the total retention volume of the basins to up to 50% of the design storm runoff. Regular maintenance to maximize the volume of the basins will provide for additional sediment capture. Improvement of the conveyance channel connecting the basins and enhancement/maintenance of the rip-rap stabilized basin inlets and spillways will improve energy dissipation, and reduce flow velocity and scouring.

The capacity of the existing basins can be improved by 1) removing accumulated sediment to achieve a basin depth of 5 feet behind the spillway, where side-slopes allow; 2) raising the spillway height by 1 foot using additional rip-rap, where feasible; 3) extending the length of the basin by maintaining the invert elevation as far upstream as side-slope conditions allow; 4) providing a rip-rap stabilized basin inlet to prevent headward erosion at the upstream edge of the basins; and 5) reducing sediment loading from the side of the basin adjacent to the waste slope by stabilizing active gullies with graded rip-rap.

The conveyance channel connecting the basins can be improved by 1) excavating a uniform swale between 3 and 4 feet wide and 2-feet deep depending on location; 2) lining and stabilizing the channel sides and bottom with D50 = 6- to 8-inch diameter rip-rap; and 3) protecting against erosion of the inside bank of the channel using larger rock where flows impinge upon unconsolidated material. Maintenance and repair of erosion and sedimentation control features is discussed in the following section. A typical cross section of the channel is presented on Figure 4, Cross-Section F-F'.

On the northeastern portion of the post-SMARA waste material slopes, a pilot program has been undertaken by the quarry operator to address erosion and the development of rills and small gullies in the waste material slope. The rills and gullies have been backfilled using native rock material consisting of a biotite-hornblende schist. The rock is excavated and passed though the crusher to produce a 4-inch minus graded material. The crushed rock is slowly released at the top of the waste material slope and allowed to gravity slide down the slope and fill in the existing rills and gullies until the fill height matches the adjacent surface grade of the slope (Photographs 5 and 6).

Backfilling the rills and gullies with graded rock material is intended to breakup concentrated flow and reduce velocity within the gulley to decrease the erosion potential. The fill may also create a relatively stable surface to allow a foothold for vegetation establishment. In addition, two-foot wide terraces have been hand-cut on the southeastern slopes at 25-foot vertical intervals to provide breaks for runoff and "islands" for revegetation and those were then seeded with a native plant seed mix (Figure 2). A one-year test period will allow for performance evaluation of the pilot erosion control method including revegetation during a complete hydrologic cycle. Due to the difficulty of obtaining direct measurements on the slope face, evaluation criteria will include a qualitative assessment of the observable reduction in gullying, decreased sediment loading at the base of the slope, and additional establishment of flora relative to adjacent control areas of the waste piles. If success criteria are met, an expansion of the pilot program to adjacent eroded areas of the waste slopes will be conducted.

Inspection and Maintenance

As expansion of the quarry proceeds, construction of the waste piles described herein will be ongoing. During the construction phase, it is important to conduct monitoring on a regular schedule to ensure that erosion control measures are being installed correctly. Once construction is finished, the performance of erosion control measures must be monitored to ensure their continued effectiveness. Performance standards for erosion control usually address correct installation and maintenance, and are assessed during monitoring. Monitoring of constructed erosion control measures should happen approximately one month before the onset of the rainy season and subsequently in conjunction with storm events. Many erosion control structures, such as a sediment basin or silt fence, require regular maintenance in order to function properly. The erosion control monitor should specifically check for structures that are in need of maintenance or re-construction, blocked structures (such as with debris), under-designed structures, undermined structures, unanticipated surface flows, rilling or gullying on finished slopes, and evidence of deposition in watercourses off-site. If problems are noted, they should immediately be repaired or additional remedial measures implemented.

The erosion control designs recommended herein should be evaluated for deterioration on a quarterly basis, as well as immediately before and after significant storm events. Erosion control features and materials such as wattles, water bars, and excelsior fencing, will deteriorate with time, and have been selected for their ability to do so, as well as for ease of maintenance. These features should be replaced when they have deteriorated to approximately 50% of their original size and/or sediment capture effectiveness.

Maintenance requirements for rip-rap energy dissipation structures, lined channels and sediment basins include:

- Inspect erosion and sedimentation control measures prior to the rainy season, and after each significant rainfall event; when access allows;
- Inspect ditches and berms for washouts. Replace lost rip-rap, damaged channel linings or grade stabilizers as needed;
- Inspect channel linings, embankments, and beds of ditches and berms for erosion and accumulation of debris and sediment;
- Remove debris and sediment, and repair linings and embankments as needed;
- Check basin inlet and spillway structures for damage or obstructions;
- Stabilize erosion damage with additional rip-rap as needed; and
- Seasonally remove accumulated sediment from the basins when accumulation reaches 50% of the designated sediment storage volume of the basin.

Sedimentation basins should have excess sediment removed when the basins reach 50% capacity. Armoring features such as rip-rap-covered areas on slopes or basin linings should be augmented with additional rip-rap sufficient to maintain the protection for the surfaces being armored, per the design criteria established, and overflow features maintained to allow flow from one basin to the next per the design criteria.

The proposed inspection and maintenance procedures described herein, as well as the proposed erosion and sedimentation controls, have been incorporated into the Site's updated Storm Water Pollution Prevention Plan (SWPPP).

RECOMMENDATIONS

Stantec recommends Whitewater retain appropriate professionals to oversee initial construction of the design features and review the final as-built work. Field oversight of construction crews and/or contractors by a professional is typically needed as they may be unfamiliar with the specifics of design features, and site conditions can change between design and field work.

LIMITATIONS

This report was prepared in accordance with generally accepted professional engineering and environmental consulting practices existing at the time of preparation and applicable to the location of the Site. It was prepared for the exclusive use of Whitewater Rock & Supply Company. Any re-use of this report for a different purpose or by others not identified above shall be at the user's sole risk without liability to Stantec. Any opinions expressed and data collected are based on the conditions of the Site existing at the time of the field investigation. No other warranties, expressed or implied are made by Stantec.

If you have any questions regarding this report, please call any of the undersigned.

Respectfully,

STANTEC CONSULTING CORPORATION

REGISTERED PROFESSIONAL ENGINEER TODD MICHAEL PORTER No.C052699 CIVIL STATE OF CALIFORNIA

REGISTERED GEOLOGIST STEPHEN W. LITTLE No 4843 EXP. 05/11 STATE OF CALIFORNIA

PROFESSIONAL GEOLOGIST STEVEN C. BRADY No. 2000 CERTIFIED ENGINEERING GEOLOGIST STATE OF CALIFORNIA

Todd Porter, P.E. Senior Engineer	Steve Little, P.G., C.HG. Senior Geologist	Steven C. Brady, C.E.G., C.HG., R.E.A. Principal Hydrogeologist

Attachments:
- Figure 1. Site Location Map
- Figure 2. Site Layout Map
- Figure 3. Northwest Waste Placement Area
- Figure 4. Cross-Sections A-A' through F-F'
- Figure 5. Detail-Proposed North Quarry Area
- Figure 6. Detail-Existing Quarry Area
- Figure 7. Detail-Proposed Southwest Waste Placement Area
- Site Photographs

cc. Martin Derus, Lilburn Corporation

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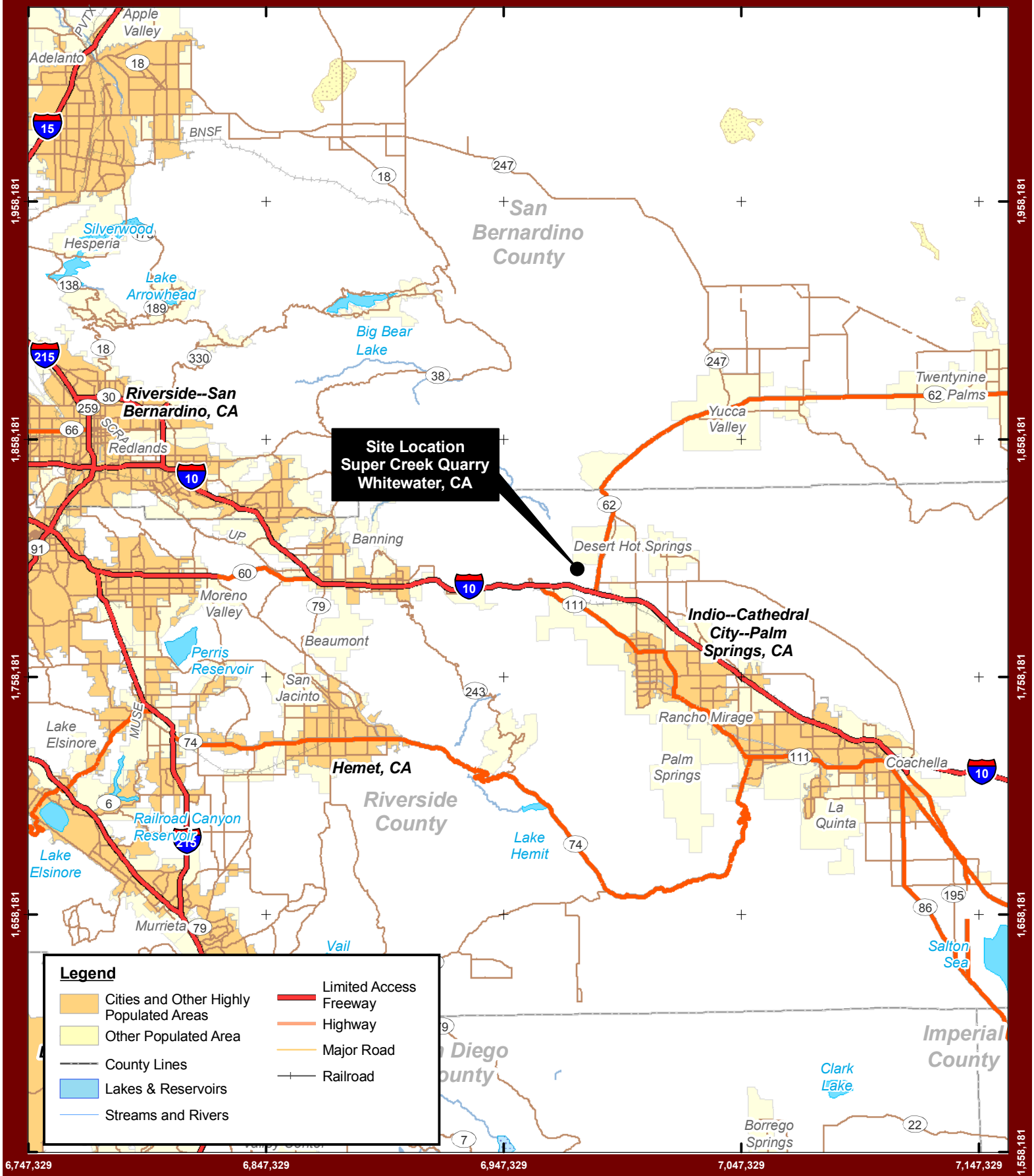

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Geographic Information Systems — Randy Edwards/ Stantec — ArcGIS Project File: Super Creek Quarry - Amended Erosion Control Designs - Figure 1 (Site Location Map).mxd

Miles
0 10 20
1 inch equals 10 miles

Figure 1
Site Location Map

Whitewater Rock and Supply Co./ Super Creek Quarry / Whitewater, CA / Amended Erosion Control Designs

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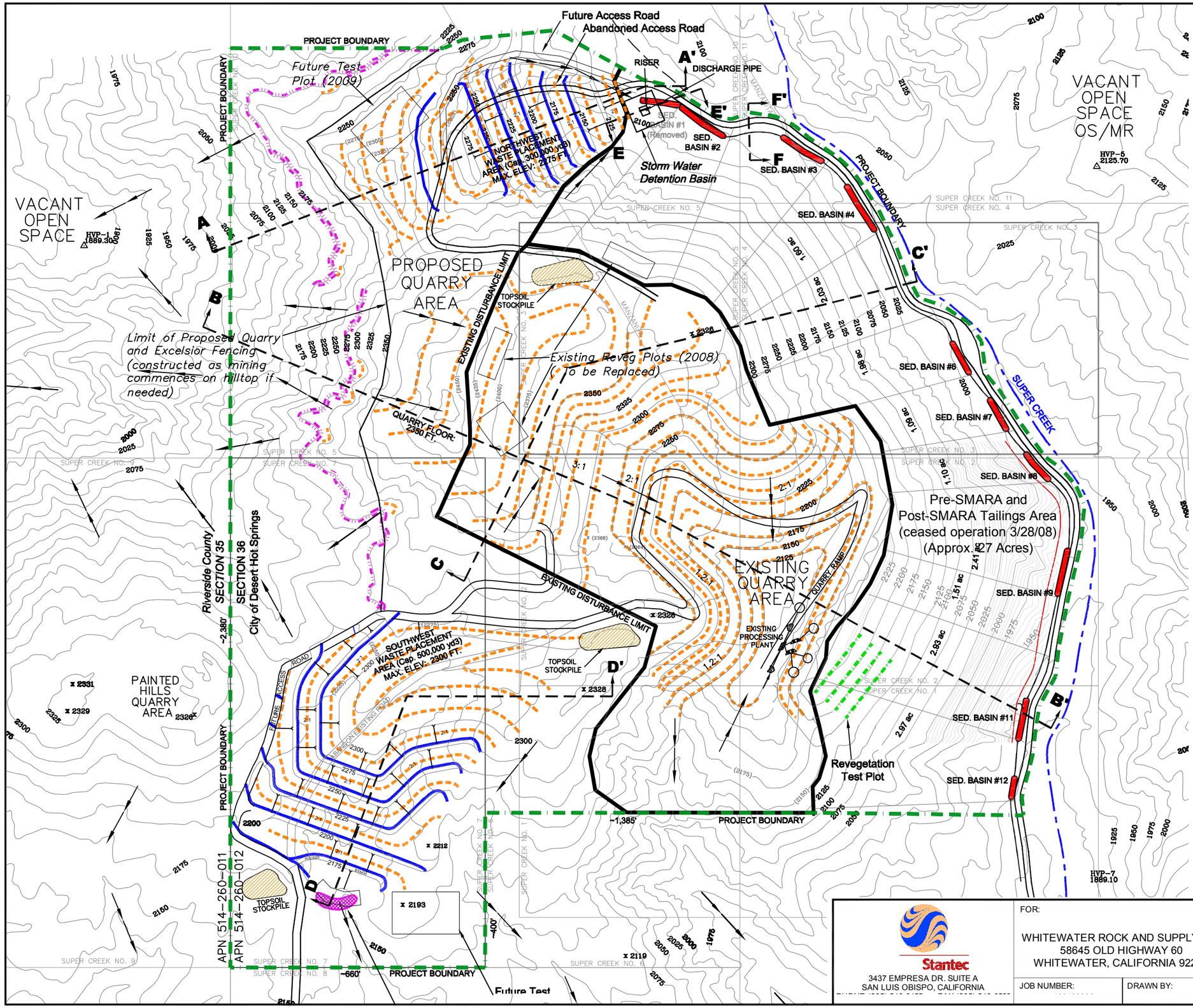

GENERAL FEATURES

- Project Boundary
- Existing Disturbance Limit
- Surface Water Flow Direction
- Cross Section Location
- Existing Topography Contour
- Existing Sedimentation Basin
- Super Creek Intermittent Stream

EROSION CONTROL FEATURES

- Waterbar - grade 100:1 to outside of palcement, with high at center of fill; armor bottom with 6-inch diameter wattles (straw or similar fill) and armor ends with cobble riprap.
- Wattle - 8-inch diameter (straw or similar fill) along line of constant elevation. Bury one-third diameter into slope. Wood stakes every 5 feet.
- Excelsior fencing - two rows at 2175 feet elevation where natural water flow concentrates (one row between areas of conc.), with the rows 10 feet apart and straddling maintenance trail. Wattles (6-inch diameter) on uphill side of each fence.
- Riprap Dam: riprap pile with lowest height at center (8 feet) composed of 12 to 18 inch nominal diameter native rock riprap having 24 to 36 inch riprap anchors (10%) and uphill face covered with matting or geofabric to retain silt and pass water. Uphill toe lined with 8 inch wattle, staked every 5 feet.
- Terrace: Hand dug, 2' wide, planted with Native Seed mix.

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58645 OLD HIGHWAY 60
WHITEWATER, CALIFORNIA 92282

SITE LAYOUT MAP

FIGURE: 2

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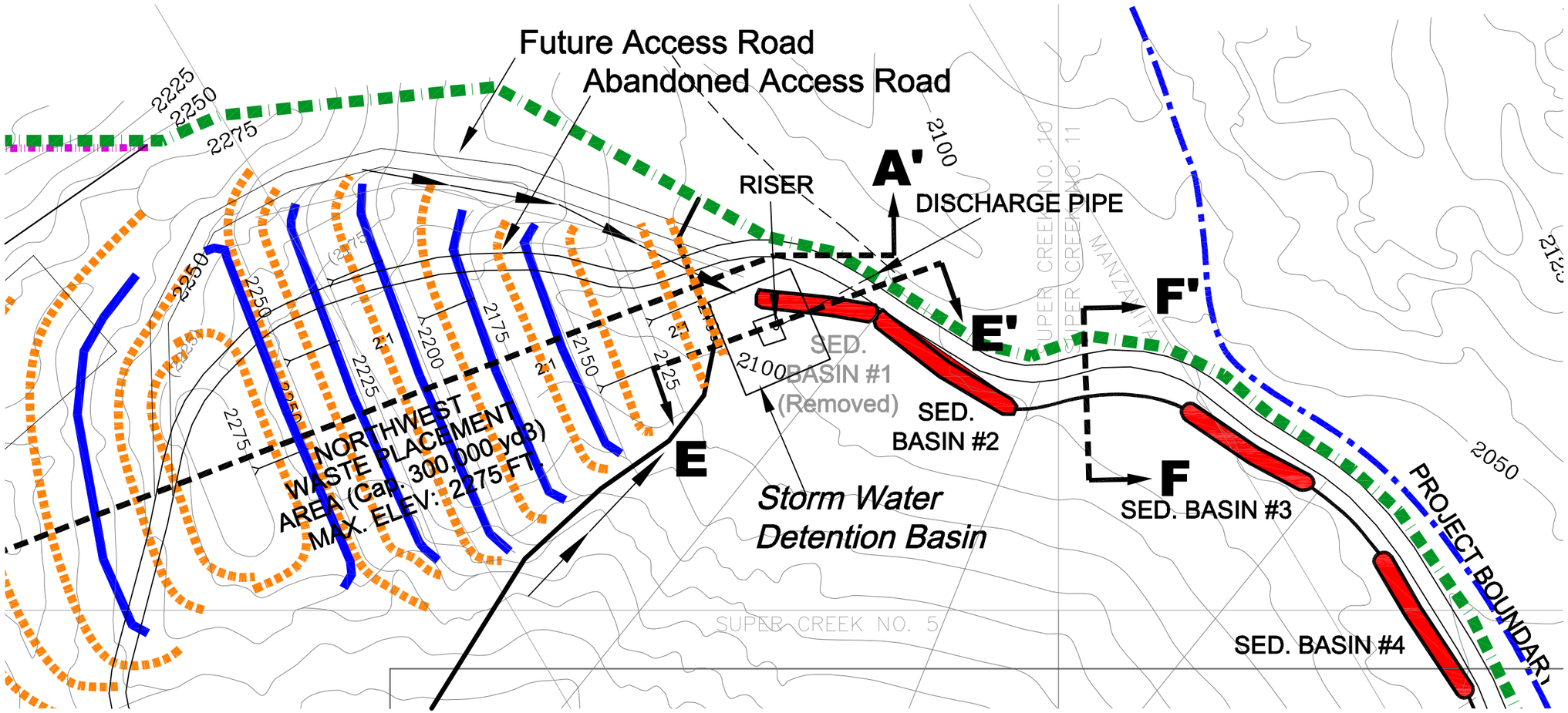

N

0 100 200

SCALE 1" = 100 FEET

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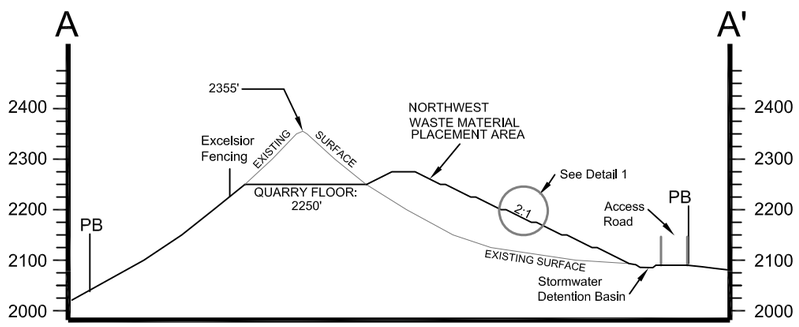
WHITEWATER ROCK AND SUPPLY CO.
58645 OLD HIGHWAY 60
WHITEWATER, CALIFORNIA 92282

NORTHWEST WASTE PLACEMENT AREA

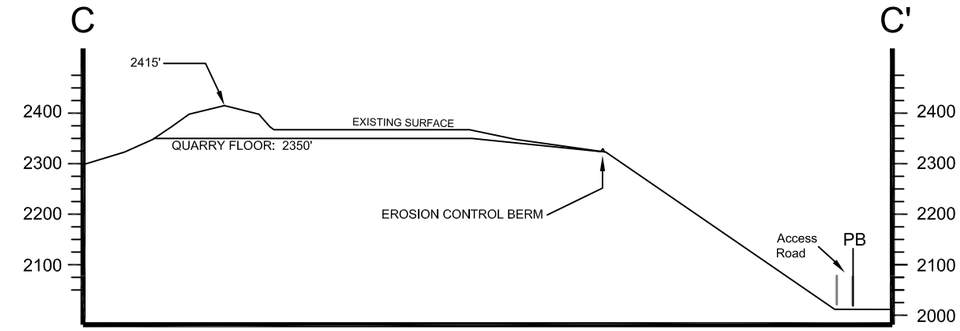
FIGURE: 3

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:



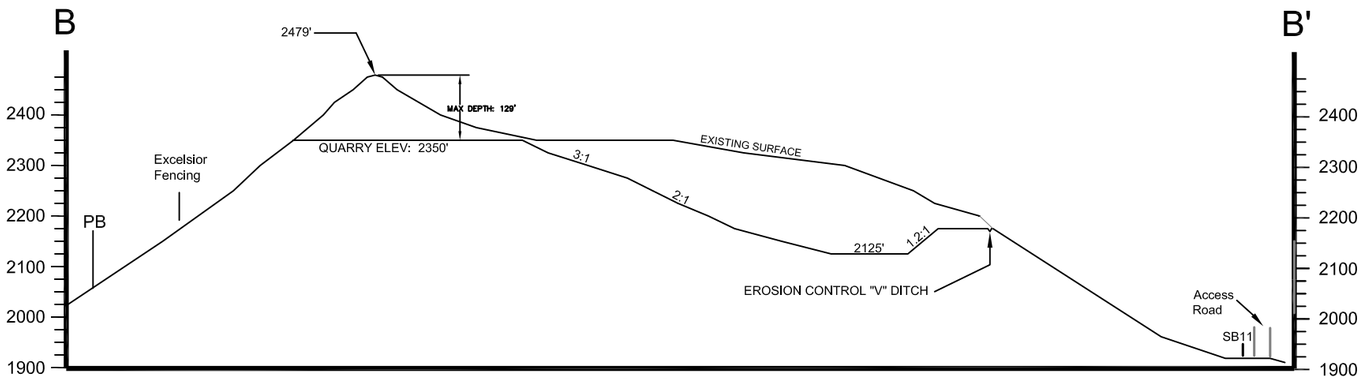
CROSS SECTION A - A'

Scale: 1" = 300'



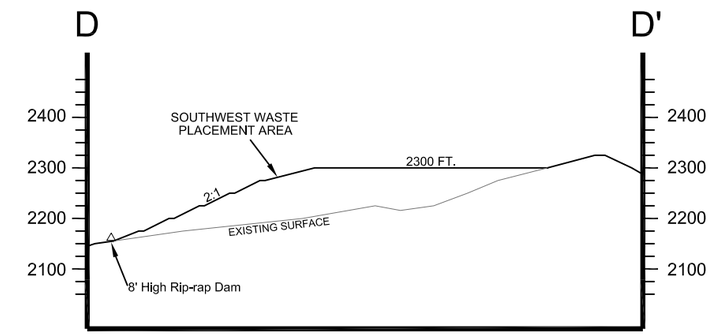
CROSS SECTION C - C'

Scale: 1" = 300'



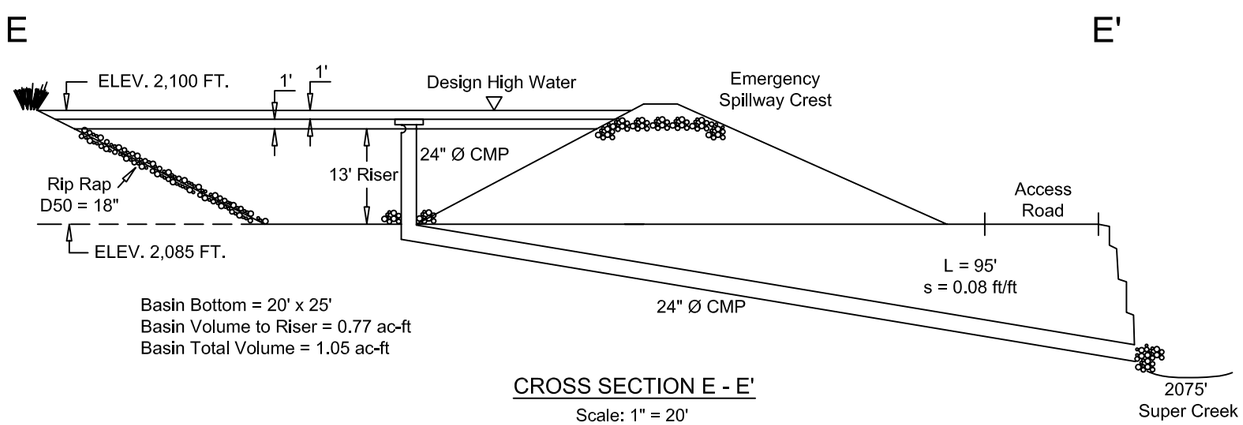
CROSS SECTION B - B'

Scale: 1" = 300'



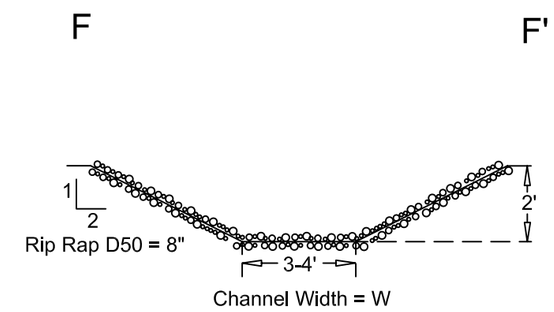
CROSS SECTION D - D'

Scale: 1" = 300'



CROSS SECTION E - E'

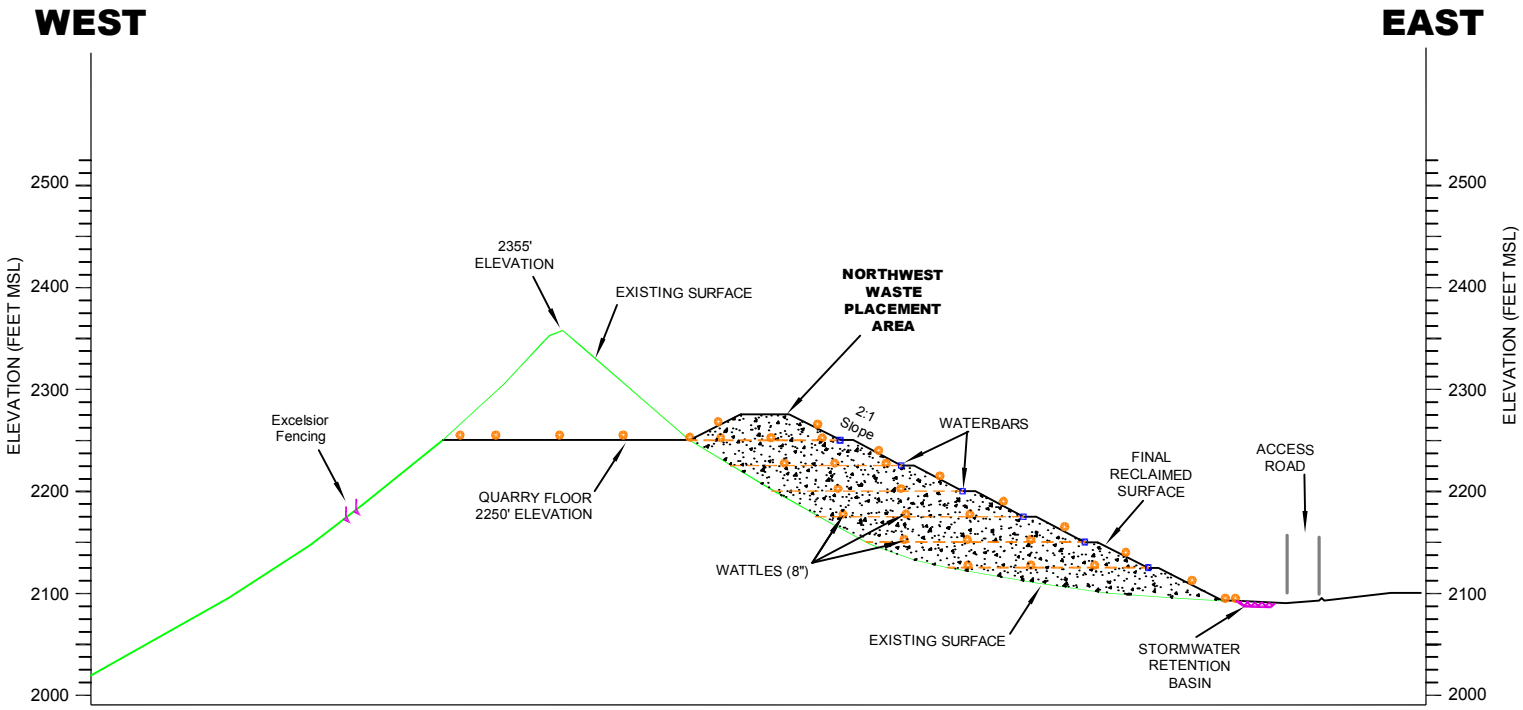
Scale: 1" = 20'



CROSS SECTION F - F'

Scale: 1" = 4'

Stantec 3437 EMPRESA DR. SUITE A SAN LUIS OBISPO, CALIFORNIA PHONE:(925) 299-9300 FAX:(925) 299-9302	FOR: WHITEWATER ROCK AND SUPPLY CO. 58645 OLD HIGHWAY 60 WHITEWATER, CALIFORNIA 92282		CROSS SECTIONS AND SEDIMENT BASIN DESIGN	FIGURE: 4
	JOB NUMBER: 183402036	DRAWN BY: SCS	CHECKED BY: TP	APPROVED BY: TP	DATE: 4/24/2009



EROSION CONTROL DETAILS

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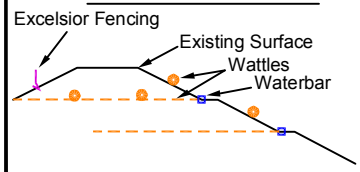

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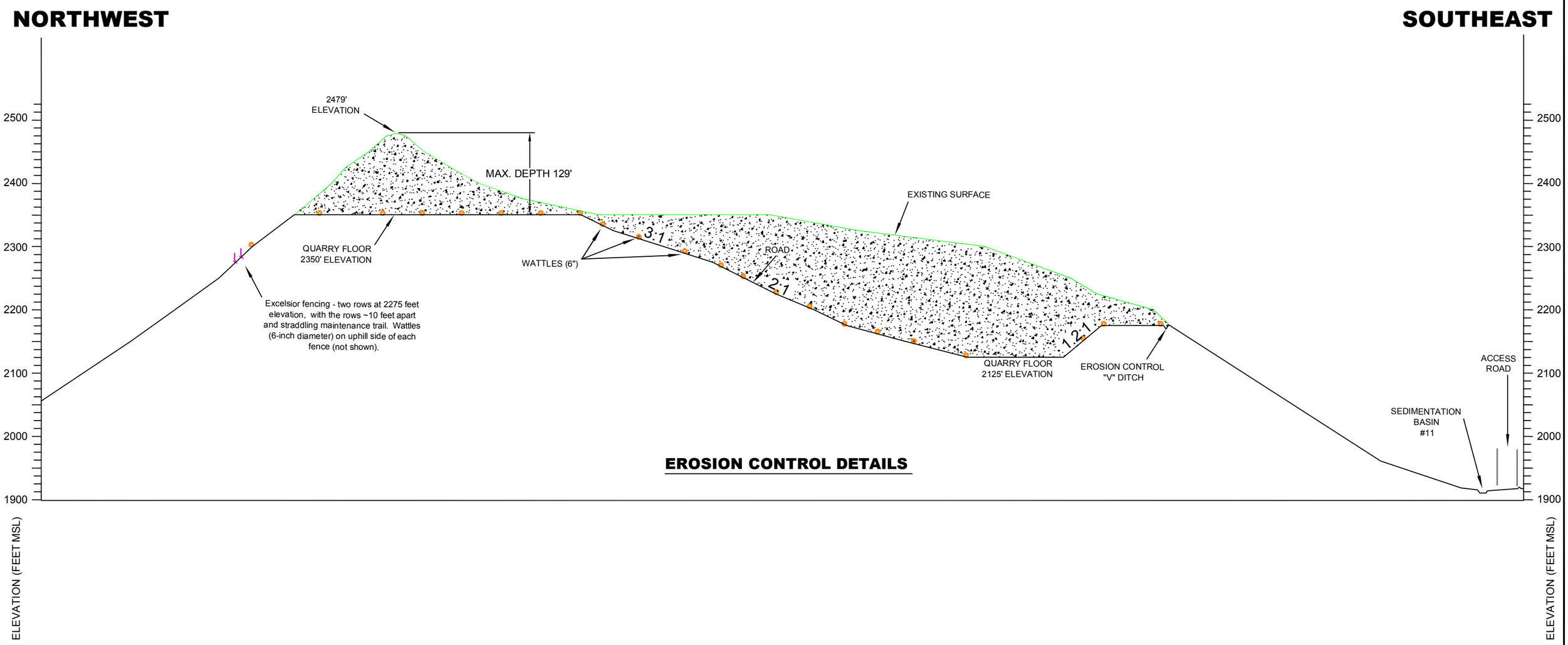
290 Conejo Ridge Avenue, Suite 200
Thousand Oaks, CA 91361
PHONE: (805) 230-1266 FAX: (805) 230-1277

FOR:
WHITEWATER ROCK AND SUPPLY
SUPER CREEK CLAIMS QUARRY
PROPOSED EXPANSION
WHITE WATER, CA

DETAIL
PROPOSED NORTH QUARRY AREA

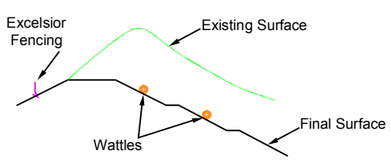
FIGURE: 5

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
183402036	RE	SB	SB	05/05/2009



EROSION CONTROL DETAILS

RESTORATION FEATURES



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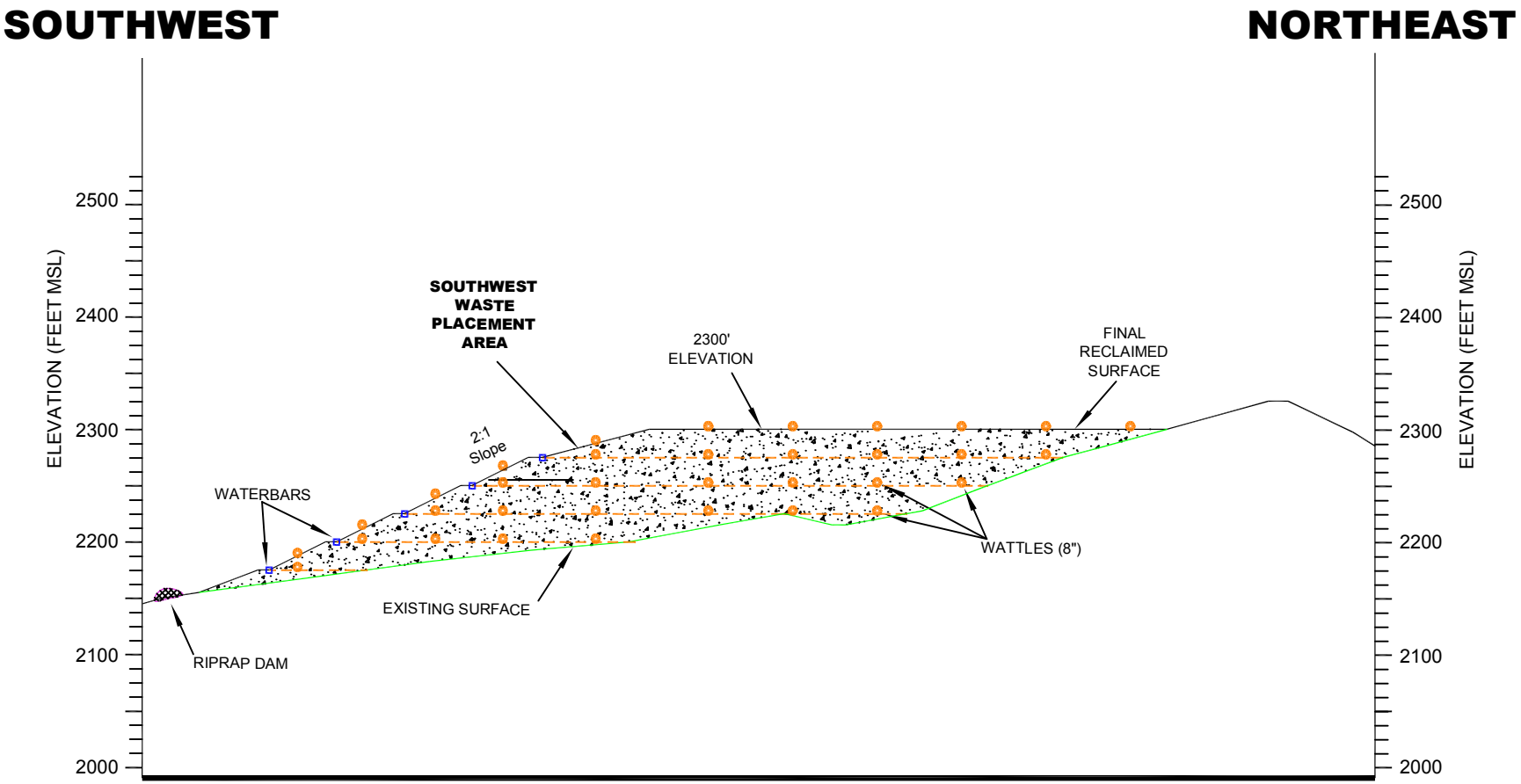
Thousand Oaks, CA 91361
PHONE: (805) 230-1266 FAX:(805) 230-1277

FOR:
WHITEWATER ROCK AND SUPPLY
SUPER CREEK CLAIMS QUARRY
PROPOSED EXPANSION
WHITE WATER, CA

DETAIL
EXISTING QUARRY AREA

FIGURE: 6

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
183402036	RE	SB	SB	05/05/2009



EROSION CONTROL DETAILS

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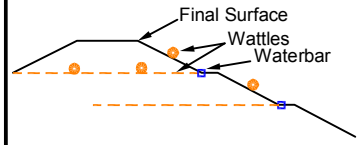
RESTORATION FEATURES



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Thousand Oaks, CA 91361
PHONE: (805) 230-1266 FAX: (805) 230-1277

FOR:
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SUPER CREEK CLAIMS QUARRY
PROPOSED EXPANSION
WHITE WATER, CA

DETAIL
PROPOSED SOUTHWEST WASTE PLACEMENT AREA

FIGURE: 7

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
183402036	RE	SB	SB	05/05/2009

1. Rip-rap stabilized area at toe of eastern slope and vegetation establishment.

2. Graded rip-rap placed at toe of eastern waste slope to break up runoff flow.

Project No. 183402038	**Site Photographs**	Stantec
Whitewater Rock Co. Super Creek Quarry Whitewater, California	**Date Taken: April 21, 2009**	

3. Typical rip-rap stabilized spillway for sedimentation basin.

4. Broad mud cracks formed in fine sediments deposited in detention basin.

Project No. 183402038	**Site Photographs**	Stantec
Whitewater Rock Co. Super Creek Quarry Whitewater, California	**Date Taken: April 21, 2009**	

5. Graded crushed rock placed to fill in rills and gullies in eastern slope..

6. Area of crushed rock fill (dark) at top of eastern waste material slope.

Project No. 183402038	**Site Photographs**	Stantec
Whitewater Rock Co. Super Creek Quarry Whitewater, California	**Date Taken: April 21, 2009**	

ATTACHMENT F

BMP CONSIDERATION CHECKLIST

BMP Consideration Checklist

SUPER CREEK QUARRY SITE BMPs CONSIDERATION CHECKLIST					
The BMPs listed here should be considered for every project. Those BMPs that are not included in the SWPPP must be checked as "Not Used" with a brief statement describing why it is not being used.					
EROSION CONTROL BMPs					
BMP No.	BMP	CONSIDERATION FOR PROJECT	CHECK IF USED	CHECK IF NOT USED	IF NOT USED, STATE REASON
EC-1	Scheduling	✓	✓		
EC-2	Preservation of Existing Vegetation	✓	✓		
EC-3	Hydraulic Mulch	✓		✓	Wind would remove quickly
EC-4	Hydroseeding	✓	✓		
EC-5	Soil Binders	✓		✓	Minimal soil present
EC-6	Straw Mulch	✓		✓	Wind would remove quickly
EC-7	Geotextiles & Mats	✓	✓		
EC-8	Wood Mulching	✓		✓	Gradients too steep
EC-9	Earth Dikes & Drainage Swales	✓	✓		
EC-10	Velocity Dissipation Devices	✓	✓		
EC-11	Slope Drains	✓	✓		

Source: California Storm Water Quality Handbooks http://www.cabmphandbooks.com

SUPER CREEK QUARRY SITE BMPs
CONSIDERATION CHECKLIST

The BMPs listed here should be considered for every project. Those BMPs that are not included in the SWPPP must be checked as "Not Used" with a brief statement describing why it is not being used.

BMP No.	BMP	CONSIDERATION FOR PROJECT	CHECK IF USED	CHECK IF NOT USED	IF NOT USED, STATE REASON
SEDIMENT CONTROL BMPs					
SE-1	Silt Fence	✓	✓		
SE-2	Sediment Basin	✓	✓		
SE-3	Sediment Trap	✓		✓	Sediment basins selected
SE-4	Check Dam	✓	✓		
SE-5	Fiber Rolls	✓	✓		
SE-6	Gravel Bag Berm	✓		✓	Riprap to be used
SE-7	Street Sweeping and Vacuuming	✓	✓		
SE-8	Sand Bag Barrier	✓		✓	Addition of sand to Site not recommended
SE-9	Straw Bale Barrier	✓		✓	Straw wattles selected
SE-10	Storm Drain Inlet Protection	✓		✓	No storm drains on-site
WIND EROSION CONTROL BMPs					
WE-1	Wind Erosion Control	✓	✓		
TRACKING CONTROL BMPs					
SE-7	Street Sweeping and Vacuuming	✓	✓		Haul Road Maintenance
TC-1	Stabilized Construction Entrance/Exit	✓		✓	No benefit perceived
TC-2	Stabilized Construction Roadway	✓	✓		
TC-3	Entrance/Outlet Tire Wash	✓		✓	~ 3.5 mile drive over dirt haul road to local road

Source: California Storm Water Quality Handbooks http://www.cabmphandbooks.com

SUPER CREEK QUARRY SITE BMPs
CONSIDERATION CHECKLIST

The BMPs listed here should be considered for every project. Those BMPs that are not included in the SWPPP must be checked as "Not Used" with a brief statement describing why it is not being used.

NON-STORM WATER MANAGEMENT BMPs

BMP No.	BMP	CONSIDERATION FOR PROJECT	CHECK IF USED	CHECK IF NOT USED	IF NOT USED, STATE REASON
NS-1	Water Conservation Practices	✓	✓		
NS-2	Dewatering Operations			✓	Water is not present except during storms
NS-3	Paving and Grinding Operations	✓		✓	No pavement on-site
NS-4	Temporary Stream Crossing			✓	No stream on-site
NS-5	Clear Water Diversion			✓	No clear water on-site
NS-6	Illegal Discharge Detection and Reporting	✓	✓		
NS-7	Potable Water/Irrigation	✓	✓		
NS-8	Equipment Cleaning	✓	✓		
NS-9	Equipment Fueling	✓	✓		
NS-10	Equipment Maintenance	✓	✓		
NS-11	Pile Driving Operations			✓	No need for piles
NS-12	Concrete Curing			✓	No concrete used on-site
NS-13	Concrete Finishing			✓	No concrete used on-site
NS-14	Material and Equipment Use Over Water			✓	No water on-site
NS-15	Demolition Adjacent to Water			✓	No water on-site or adjacent
NS-16	Temporary Batch Plants	✓	✓		

Source: California Storm Water Quality Handbooks http://www.cabmphandbooks.com

SUPER CREEK QUARRY SITE BMPs
CONSIDERATION CHECKLIST

The BMPs listed here should be considered for every project. Those BMPs that are not included in the SWPPP must be checked as "Not Used" with a brief statement describing why it is not being used.

WASTE MANAGEMENT BMPs

BMP No.	BMP	CONSIDERATION FOR PROJECT	CHECK IF USED	CHECK IF NOT USED	IF NOT USED, STATE REASON
WM-1	Material Delivery and Storage	✓	✓		
WM-2	Material Use	✓	✓		
WM-3	Stockpile Management	✓	✓		
WM-4	Spill Prevention and Control	✓	✓		
WM-5	Solid Waste Management	✓	✓		
WM-6	Hazardous Waste Management	✓	✓		
WM-7	Contaminated Soil Management	✓	✓		
WM-8	Concrete Waste Management			✓	No concrete on-site
WM-9	Sanitary/Septic Waste Management	✓	✓		
WM-10	Liquid Waste Management			✓	No liquid wastes

Source: California Storm Water Quality Handbooks http://www.cabmphandbooks.com

SUPER CREEK QUARRY SITE BMPs
CONSIDERATION CHECKLIST

The BMPs listed here should be considered for every project. Those BMPs that are not included in the SWPPP must be checked as "Not Used" with a brief statement describing why it is not being used.

SOURCE CONTROL BMPs

BMP No.	BMP	CONSIDERATION FOR PROJECT	CHECK IF USED	CHECK IF NOT USED	IF NOT USED, STATE REASON
SC-10	Non-Stormwater Discharges	✓	✓		
SC-11	Spill Prevention, Control and Cleanup	✓	✓		
SC-20	Vehicle and Equipment Fueling	✓	✓		
SC-21	Vehicle and Equipment Cleaning	✓		✓	Vehicle and equipment cleaning does not occur on the Site
SC-22	Vehicle and Equipment Repair	✓	✓		
SC-30	Outdoor Loading/Unloading	✓	✓		
SC-31	Outdoor Liquid Container Storage	✓	✓		
SC-32	Outdoor Equipment Operations	✓	✓		
SC-33	Outdoor Storage of Raw Materials	✓		✓	Raw materials are not stored on-site
SC-34	Waste Handling and Disposal	✓	✓		
SC-35	Safer Alternative Products	✓		✓	Minimal chemical products are currently used on the Site
SC-40	Contaminated or Erodible Areas	✓	✓		
SC-41	Building and Grounds Maintenance	✓	✓		
SC-42	Building Repair and Construction			✓	No buildings are located on the Site and no buildings are planned
SC-43	Parking/Storage Area Maintenance			✓	There are no designated parking/storage areas on the Site
SC-44	Drainage System Maintenance			✓	Municipal storm or sanitary sewer service is not provided at the Site

ATTACHMENT G

PROGRAM FOR MAINTENANCE, INSPECTION, AND REPAIR OF SITE BMPS

BMPs	Inspection and Monitoring Frequency	Program Actions
Erosion Control	Continual	Preserve existing vegetation where required and when feasible, ensure drainage ditches into quarry pit continue to direct flows into the pit,
	Before storm season and after storms	Apply temporary erosion controls to remaining active and non-active areas as required by the California Stormwater BMP Handbook and specified in Attachment E
	One month before the onset of the rainy season and in conjunction with storm events	Monitor constructed erosion control measures at the active quarry area, waste areas, and inactive waste slope as specified in Attachment E. Replenish BMP materials as necessary, check for blockages, under-designed structures, undermined structures, unanticipated surface flows, rilling or gullying on finished slopes, and evidence of deposition in watercourses off-site.
	As areas become closed to mining	Stabilize non-active areas as soon as feasible after the cessation of mining activities
	Monthly	Inspect the site during the dry season
	As areas become closed to mining	Apply seed to areas deemed substantially complete by the Owner during the defined rainy season
	Mine closure (tentatively 2034)	Apply permanent erosion control to all remaining disturbed soil areas
	As areas become closed to mining	Maintain minimal slopes where possible to reduce sheet flow
	As new waste piles are built (interim actions)	Ensure erosion control specifications are followed (Attachment E)
	Annually	Revegetate inactive quarry slopes that will no longer be affected by mining
	During rainy season	Apply native seed to areas deemed substantially complete by the Owner
Sediment Control	Before storm season and after storms	Maintain detention basins by periodically removing accumulated sediments
	Monthly	Keep haul road graded so that flow stays to the west side of the road and does not promote overland flow into Super Creek
	As new waste piles are built (interim actions)	Ensure sediment control specifications are followed (Attachment E)
	One month before the onset of the rainy season and in conjunction with storm events	Monitor constructed erosion control measures at the active quarry area, waste areas, and inactive waste slope as specified in Attachment E. Replenish BMP materials as necessary, check for blockages, under-designed structures, undermined structures, unanticipated surface flows, rilling or gullying on finished slopes, and evidence of deposition in

		watercourses off-site.
Tracking Control	Monthly	Perform haul road maintenance
	Monthly	Maintain on-site truck circulation roadways and haul road
	Before storm season and after storms	Grade truck circulation roadways and haul road to minimize flour generation, scrape haul road to move flour to uphill side of road
Wind Erosion Control	Continual	Use of water trucks for wet suppression
	Continual	Stockpiling to minimize surface area of processed ore exposed to wind
Non-Storm Water Management	As reported by facility personnel	Illegal Discharge Detection and Reporting
	Monthly	Equipment Fueling
	Monthly	Equipment Maintenance
Waste Management & Source Control	Monthly	Material Delivery and Storage
	Monthly	Material Use
	Monthly	Stockpile Management
	Monthly	Spill Prevention and Control
	Monthly	Solid Waste Management
	Monthly	Sanitary/Septic Waste Management
	Monthly	Equipment Repair
	Monthly	Outdoor Loading/Unloading
	Monthly	Outdoor Liquid Container Storage (ASTs)
	Monthly	Outdoor Equipment Operations
	Monthly	Grounds Maintenance

ATTACHMENT H

SWPPP AND MONITORING PROGRAM CHECKLIST

GENERAL INFORMATION				
Project Name				
Project No.				
Inspector's Name				
Inspector's Title				
Signature				
Date of Inspection				
Contractor Name				
Inspection Type (Check Applicable)	☐ Prior to forecast rain ☐ 24-hr intervals during extended rain		☐ After a rain event ☐ Other _____	
Season (Check Applicable)	☐ Rainy		☐ Non-Rainy	
Storm Data	**Storm Start Date & Time:**		**Storm Duration (hrs):**	
	Time elapsed since last storm (Circle Applicable Units)	**Min. Hr. Days**	**Approximate Rainfall Amount (inches)**	

PROJECT AREA SUMMARY AND MINED AREA (MA) Size	
Total Project Area	_____ **(acres)**
Field Estimate of Active MA Size	_____ **(acres)**
Field Estimate of Non-Active MA Size	_____ **(acres)**

INSPECTION OF BMPs				
BMP	**Yes**	**NO**	**N/A**	**Corrective Action**
Preservation of Existing Vegetation				
Erosion Control				
Does the applied temporary erosion control provide 100% coverage for the affected areas?				
Are there any non-vegetated areas that may require temporary erosion control?				

INSPECTION OF BMPs				
BMP	**Yes**	**NO**	**N/A**	**Corrective Action**
Is the area where erosion controls are used free from visible erosion?				
Location:				
Location:				
Location:				
Location:				
Temporary Linear Sediment Barriers (tailings fences "Stanet", etc.)				
Are temporary linear sediment barriers properly installed, functional, and maintained?				
Are temporary linear sediment barriers free of accumulated litter?				
Is the built-up sediment less than 1/3 the height of exposed barriers?				
Are cross barriers installed where necessary and properly spaced?				
Location:				
Location:				
Location:				
Location:				
Location:				
Sediment Basins				
Are basins designed in accordance with the requirements of the General Permit?				
Are basins maintained to provide the required retention/detention?				
Are basin controls (inlets, outlets, diversions, spillways) in working order?				
Location:				
Location:				
Location:				
Location:				
Stockpiles				
Are all locations of temporary stockpiles, including soil, hazardous waste, and construction materials in approved areas?				
Are stockpiles protected from run-on, run-off from adjacent areas and from winds?				
Are stockpiles located at least 15 m from concentrated flows, downstream drainage courses and storm drain inlets?				
Are required covers and/or perimeter controls in place?				
Location:				
Location:				
Location:				
Location:				
Concentrated Flows				

INSPECTION OF BMPs				
BMP	**Yes**	**NO**	**N/A**	**Corrective Action**
Are concentrated flow paths free of visible erosion?				
Location:				
Location:				
Location:				
Location:				
Tracking Control				
Is the mine entrance stabilized to prevent tracking?				
Are points of ingress/egress to private roads inspected as needed?				
Location:				
Location:				
Location:				
Location:				
Wind Erosion Control				
Is dust control implemented?				
Location:				
Location:				
Location:				
Location:				
Equipment Fueling, Cleaning, and Maintenance				
Are equipment fueling, cleaning, and maintenance areas reasonably clean and free of spills, leaks, or any other deleterious material?				
Are equipment fueling, cleaning, and maintenance activities performed on an impermeable surface in dedicated areas?				
If no, are drip pans used?				
Are dedicated fueling, cleaning, and maintenance areas located at least 15 m away from downstream drainage watercourses and protected from run-on and runoff?				
Is wash water contained for infiltration/ evaporation and disposed of appropriately?				
Is on-site cleaning limited to washing with water (no soap, soaps substitutes, solvents, or steam)?				
On each day of use, is equipment inspected for leaks and if necessary, repaired?				
Location:				
Location:				
Location:				
Location:				
Waste Management & Materials Pollution Control				
Are material storage areas and washout areas protected from run-on and runoff, and located at least 15 m from concentrated flows and downstream drainage facilities?				
Are all material handling and storage areas clean; organized; free of spills, leaks, or any other deleterious material; and stocked with appropriate clean-up				

INSPECTION OF BMPs				
BMP	**Yes**	**NO**	**N/A**	**Corrective Action**
supplies?				
Are liquid materials, hazardous materials, and hazardous wastes stored in temporary containment facilities?				
Are bagged and boxed materials stored on pallets?				
Are hazardous materials and wastes stored in appropriate, labeled containers?				
Are proper storage, clean-up, and spill-reporting procedures for hazardous materials and wastes posted in open, conspicuous and accessible locations adjacent to storage areas?				
Are temporary containment facilities free of spills and rainwater?				
Are temporary containment facilities and bagged/boxed materials covered?				
Are spills from mobile equipment fueling and maintenance properly contained and cleaned up?				
Is the site free of litter?				
Are trash receptacles provided at locations where workers congregate for lunch and break periods?				
Is litter from work areas collected and placed in watertight dumpsters?				
Are waste management receptacles free of leaks?				
Are the contents of waste management receptacles properly protected from contact with storm water or from being dislodged by winds?				
Are waste management receptacles filled at or beyond capacity?				
Location:				
Location:				
Location:				
Location:				
Illicit Discharge				
Is there any evidence of illicit discharges or illegal dumping on the project site?				
If yes, has the Owner/Operator been notified?				
Location:				
Location:				
Location:				
Location:				
Discharge Points				
Are discharge points and discharge flows free from visible pollutants?				
Are discharge points free of any significant sediment transport?				
Location:				
Location:				
Location:				

INSPECTION OF BMPs				
P	**Yes**	**NO**	**N/A**	**Corrective Action**
Location:				
SWPPP Update				
Does the SWPPP and Project Schedule adequately reflect the current site conditions and contractor operations?				
Are all BMPs shown on the water pollution control drawings installed in the proper location(s) and according to the details in the SWPPP?				
Location:				
Location:				
Location:				
Location:				
Storm Water Monitoring				
Does storm water discharge directly to a water body listed in the General Permit as impaired for sediment/sedimentation or turbidity?				
If yes, were samples for sediment/sedimentation or turbidity collected pursuant to the sampling and analysis plan in the SWPPP?				
Did the sampling results indicate that the discharges are causing or contributing to further impairment?				
If yes, were the erosion/sediment control BMPs improved or maintained to reduce the discharge of sediment to the water body?				
Were there any BMPs not properly implemented or breaches, malfunctions, leakages, or spills observed which could result in the discharge of pollutants to surface waters that would not be visually detectable in storm water?				
If yes, were samples for non-visually detectable pollutants collected pursuant to the sampling and analysis plan during rain events?				
If sampling indicated pollution of the storm water, were the leaks, breaches, spills, etc. cleaned up and the contaminated soil properly disposed of?				
Were the BMPs maintained or replaced?				
Did storm water contact stored materials or waste and run off the construction site? (Materials not in watertight containers, etc.)				
If yes, were samples for non-visually detectable pollutants collected pursuant to the sampling and analysis plan in the SWPPP?				

ATTACHMENT I

DISCHARGE REPORTING LOG

Discharge Reporting Log

Instructions: Use this sheet to log discharge incidents as reported in Attachment K, Notice of Discharge, Written Notice, or Order.

Project Name: Super Creek Quarry, Section 36, T2S, R3E, Desert Hot Springs, California, WDID # 7 33I013580

Project Number: Riverside County Mining/Reclamation Plan No. 137 (CA Mine ID #91-33-0003)

Date	Material(s) Discharged	Estimated Quantity	Observed By

ATTACHMENT J

SAMPLING ACTIVITY LOG

Sampling Activity Log

RAIN EVENT GENERAL INFORMATION				
Project Name				
Project Number				
Contractor				
Sampler's Name				
Signature				
Date of Sampling				
Season (Check Applicable)	☐ Rainy		☐ Non-Rainy	
Storm Data	**Storm Start Date & Time:**		**Storm Duration (hrs):**	
	Time elapsed since last storm (Circle Applicable Units)	**Min. Hr. Days**	**Approximate Rainfall Amount (inches)**	

For rainfall information : http://cdec.water.ca.gov/weather.html or http://www.wrh.noaa.gov/wrhq/nwspage.html

SAMPLE LOG		
Sample Identification	**Sample Location**	**Sample Collection Date and Time**

FIELD ANALYSIS		
☐ **Yes**	☐ **No**	
Sample Identification	**Test**	**Result**

ATTACHMENT K

POLLUTANT TESTING GUIDANCE TABLE – NON-VISIBLE AND VISIBLE POLLUTANTS

Table 600-2
Sample Collection, Preservation, and Analysis for Monitoring Non-Visible and Visible Pollutants

Constituent	Analytical Method	Minimum Sample Volume	Sample Bottle	Sample Preservation	Reporting Limit	Maximum Holding Time
Oil & Grease	EPA Method 1664A	1 x 1 L	Glass	Store at 4ºC	5.0 mg/L	28 days
Specific Conductance	SM 2510B	1 x 1 L	Polyethylene or Glass	Store at 4ºC	1.0 µmhos/cm	28 days
pH	EPA Method 150.1	1 x 100 mL	Polyethylene	Store at 4ºC	unitless	Immediate
Total Suspended Solids (non- filterable)	EPA Method 160.2/SM 2540	1 x 1 L	Polyethylene	Store at 4ºC	5 mg/L	7 days

Notes:
L = liter
mL = milliliter
EPA = U.S. Environmental Protection Agency
H2SO4 = Sulfuric acid, preservative
µmhos/cm = micromhos per centimeter