

Los Angeles Regional Water Quality Control Board

January 20, 2016

Mr. Michael Rogers, Operations Manager
Hanson Aggregates West
13550 Live Oak Avenue
Irwindale, CA 91706-1318

**RESPONSE TO COMMENTS - TENTATIVE WASTE DISCHARGE REQUIREMENTS –
IRWINDALE QUARRY INERT LANDFILL, IRWINDALE, CALIFORNIA (FILE NO. 78-023,
ORDER NO. 93-076, CI-6446, GEOTRACKER GLOBAL NO. L10009725579)**

Dear Mr. Rogers:

Reference is made to a letter from this Regional Water Quality Control Board (Regional Board), dated December 22, 2015, transmitting tentative Waste Discharge Requirements (WDRs) for the Irwindale Quarry Inert Landfill (Landfill) in Irwindale, California (tentative Order). Comments were received from the Hanson Aggregates LLC (Discharger) via email on January 15, 2016, and from the Main San Gabriel Basin Watermaster on January 19, 2016, on the tentative Order. Regional Board staff has considered all comments submitted, made revisions to the tentative Order accordingly, and prepared the attached Response to Comments. All comments received and a redline version that includes all revisions to the tentative Order released on December 22, 2015, are also attached to this letter.

Written comments regarding the tentative Order were due to the Regional Board office by 5:00 PM on January 18, 2016. However, because the day was a State and Federal holiday, comments received on January 19, 2016, is considered meeting the deadline. Following review of the revisions to the tentative Order, the Discharger and any interested persons can raise additional questions or comments as testimony before the Regional Board during the scheduled public meeting on February 11, 2016.

Should you have any questions, please contact me at (213) 620-2253.

Sincerely,



Wen Yang
Senior Engineering Geologist
Land Disposal Unit

Attachments

- 1) Responses to comments,
- 2) Comments received
- 3) Revised tentative WDRs in redline format

cc: Leslie Graves, State Water Resource Control Board (Leslie.Graves@waterboards.ca.gov)
Shannon Hill, Cal Recycling (Shannon.Hill@calrecycle.ca.gov)
Gerardo Villalobos, Los Angeles County, DPH (gvillalobos@ph.lacounty.gov)
Tony Zampiello, Main San Gabriel Basin Watermaster (tony@watermaster.org)
William Tam, City of Irwindale (ktam@ci.irwindale.ca.us)
Steve Zacks, Lehigh Hanson West Region, Oxnard (Steve.Zacks@hanson.biz)

Response to Comments

Item 9

Committer (Date submitted)	Summary of Comments	Response / Action
<p>Hanson Aggregates LLC (1/15/2016)</p>	<p>1. Page 4, Condition A-1: List of acceptable wastes does not include brick, which is in the RWQCB approved load checking program. Can brick be added to Condition A-1?</p>	<p>Brick is a common inert waste category and has been added to the list of acceptable wastes.</p>
	<p>2. Figure 2. Site Map: The "Former Irwindale Dike disposal area" was located on the southwest side of the "40-Acre Landfill limit". We are not aware that there was a "Former Plant Dump disposal area" as shown on Figure 2.</p>	<p>The outlines of the Former Irwindale Dike and Former Plant Dump disposal areas in Figure 2 were obtained from monitoring reports submitted to the Regional Board under WDR Orders No. 86-40 and No. 86-45. No change to the Figure is made in response to this comment.</p>
	<p>3. Monitoring and Reporting Program, paragraph 1: Change "Hasson" to "Hanson".</p>	<p>The typographical error has been corrected.</p>
<p>Main San Gabriel Basin Watermaster (1/19/2016)</p>	<p>1. Watermaster generally considers qualified inert landfill operations as not to be in conflict with Watermaster's objectives for maintaining basin water quality, but has concerns with risks of future contamination.</p>	<p>The Regional Board shares the goal of protecting groundwater quality in the Region, including the Main San Gabriel Basin. The tentative WDRs include requirements for the implementation of an updated load checking program to ensure that only inert wastes are discharge at the landfill, and an updated groundwater monitory program to ensure that groundwater quality is not impacted by the waste discharger ope rations. No change to the tentative Order is made in response to the comment.</p>
	<p>2. The comments include Watermaster Resolution No. 3-88-57, dated March 2, 1988, which includes conditions for inert landfill operations and a letter from the Watermaster to the City of Irwindale, dated October 19, 1998, that expressed concerns of potential impact to groundwater quality with the reclamation of gravel pits in the City.</p>	<p>Staff believes that all conditions related to water quality protection in the Watermaster's resolution and letter have been included or addressed in the tentative Order. As a routine practice, Board staff will inform the Watermaster of any issues at any landfills in the area that may have an impact to groundwater quality and consult with the Watermaster of any corrective action that may be necessary to protect groundwater quality.</p>

Yang, Wen@Waterboards

From: Zacks, Steve (Oxnard) USA <Steve.Zacks@hanson.biz>
Sent: Friday, January 15, 2016 3:46 PM
To: Yang, Wen@Waterboards
Cc: Quidilla, Clarita@Waterboards; Rogers, Michael A (Irwindale) USA
Subject: Irwindale Quarry Inert Landfill_Tentative WDR, CI 6446_2015-12-22

Follow Up Flag: Flag for follow up
Flag Status: Flagged

Dr. Yang,
Hanson Aggregates LLC has the following comments on the Tentative WDR for the Irwindale Quarry Inert Landfill dated 12/22/2015:

1. Page 4, Condition A-1: List of acceptable wastes does not include brick, which is in the RWQCB approved load checking program. Can brick be added to Condition A-1?
2. Figure 2. Site Map: The "Former Irwindale Dike disposal area" was located on the southwest side of the "40-Acre Landfill limit". We are not aware that there was a "Former Plant Dump disposal area" as shown on Figure 2.
3. Monitoring and Reporting Program, paragraph 1: Change "Hasson" to "Hanson".

Regards,

Steve Zacks
Environmental Manager

Lehigh Hanson
West Region
681 Aspen Circle
Oxnard, CA 93030

Cell: 805 748-0128
Steve.Zacks@Hanson.com

From: Quidilla, Clarita@Waterboards [<mailto:Clarita.Quidilla@waterboards.ca.gov>]
Sent: Tuesday, December 22, 2015 2:28 PM
To: Rogers, Michael A (Irwindale) USA
Cc: Graves, Leslie@Waterboards; Shannon Hill (Shannon.Hill@calrecycle.ca.gov); Gerardo Villalobos (gvillalobos@ph.lacounty.gov); tonyz@watermaster.org; William Tam (wtam@ci.irwindale.ca.us); Zacks, Steve (Oxnard) USA; Carlos, Alex@Waterboards; Chou, Rebecca@Waterboards; Yang, Wen@Waterboards
Subject: Irwindale Quarry Inert Landfill_Tentative WDR, CI 6446_2015-12-22

The California Regional Quality Control Board for the Los Angeles Region (Regional Board) provides copies of correspondence through e-mail. The attached is your copy of recent correspondence; only the addressee will receive a hard copy.

The letter is in Adobe Acrobat PDF format. You can obtain an Acrobat Reader free of charge at <http://www.adobe.com/products/acrobat/readstep2.html>.

Please contact the project manager, Dr. Wen Yang at (213) 620-2253 if you have any questions.

Thank you,

Clarita S. Quidilla
Staff Services Analyst



January 18, 2016

Dr. Wen Yang
California Regional Water Quality Control Board, Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

RE: Notice of Opportunity for Public Comment and Public Meeting on Tentative Waste Discharge Requirements for Irwindale Quarry Inert Landfill

Dear Dr. Wen Yang:

The Main San Gabriel Basin Watermaster (Watermaster) is in receipt of the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) "Notice of Opportunity for Public Comment and Public Hearing", dated December 22, 2015, for the tentative Waste Discharge Requirements (WDRs) for Hanson's Irwindale Quarry Inert Landfill in Irwindale, California. Watermaster appreciates the opportunity to provide our comments and concerns in your evaluation process.

Watermaster is involved with the protection and preservation of surface and groundwater quality in the San Gabriel Valley. Watermaster's main goal is to monitor and protect water quality for the groundwater basin. Watermaster generally considers qualified inert landfill operations as not to be in conflict with Watermaster's objectives for maintaining basin water quality, but has concerns with risks of future contamination.

Watermaster has adopted Resolution No. 3-88-57 regarding inert landfills. The following is a summary of the primary guidelines as stated in Resolution No. 3-88-57 (See Attachment A). Any reclamation plans or changes for an inert landfill should include the following conditions:

1. Inert landfills shall be filled directly by the site operator pursuant to a written plan. (No unmonitored/unregulated dumping.)
2. Inert landfills may not receive tires, wood, plasterboard, or contain organic material such as tree stumps, branches or similar material.
3. There shall be no placing of any material classified as hazardous waste by the State Department of Health Services, County Health Department, United States Environmental Protection Agency, State Water Resources Control Board, the Solid Waste Management Board, or any other responsible Federal, State or local agency.
4. The site must be secured at all times.
5. No materials shall be dumped directly into standing groundwater.
6. The landfill operator shall provide reasonable and adequate water quality monitoring by appropriate test wells to protect the water quality.

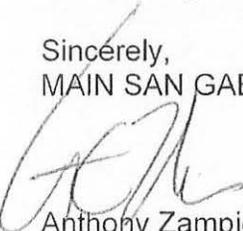
7. The landfill operator must maintain a record of all materials placed in the site.
8. The landfill operator must provide adequate closure of the site.

In a letter dated October 19, 1998 (See Attachment B), Watermaster previously provided the City of Irwindale with general comments regarding reclamation of gravel pits. Watermaster's primary concern with the reclamation of gravel pits is the potential impacts to groundwater quality.

In Section D.1 on Page 6 of the Regional Board's tentative WDRs for Hanson Aggregates, LLC Irwindale Quarry Inert Landfill, it states that the Groundwater Water Quality Protection Standard for Sulfate is 300 milligrams per liter (mg/L) and Boron is 1.5 mg/L. In response to an inquiry from Watermaster staff, Regional Board staff confirmed there were typographical errors in Section D.1. The Water Quality Protection Standard for Sulfate is 100 mg/l and Boron is 0.5 mg/l according to the Regional Board's Basin Plan. Consequently, Regional Board staff made the corrections on the tentative WDRs.

Watermaster appreciates this opportunity to provide comments. Please feel free to contact me should you have any questions.

Sincerely,
MAIN SAN GABRIEL BASIN WATERMASTER



Anthony Zampielo
Executive Officer

cc: Stetson Engineers Inc.

ATTACHMENT A

1 RESOLUTION NO. 3-88-57

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3 A RESOLUTION OF THE MAIN SAN GABRIEL BASIN
4 WATERMASTER AMENDING RESOLUTION NO. 7-85-45,
5 DECLARING ITS POLICY TO OPPOSE ALL LANDFILL
6 OPERATIONS WHICH OVERLIE SAID BASIN OTHER THAN
7 THOSE WHICH USE ONLY INERT MATERIALS FOR FILL

8 BE IT RESOLVED BY THE MAIN SAN GABRIEL BASIN WATERMASTER
9 as follows:

10 Section 1. Resolution No. 7-85 -45, adopted July 3, 1985,
11 is, hereby, amended to read, as follows:

12 WHEREAS, because of the characteristics of the Main San
13 Gabriel Basin, the susceptibility to risk of the Basin's
14 valuable and irreplaceable water supply, and the risk of
15 degradation or contamination of the quality of said water supply
16 from landfill operations in the Basin, it is necessary to
17 eliminate such risk to said Basin's water supply; and

18 WHEREAS, the Main San Gabriel Basin Watermaster on June 6,
19 1984, adopted recommended conditions for Conditional Use Permits
20 for landfills and waste disposal facilities within the Basin; on
21 November 7, 1984, adopted its Resolution No. 84-38, declaring
22 its policy to oppose all proposed landfill operations in the
23 Basin and relevant watershed except those which were then
24 classified as Class III landfills and which met Watermaster's
25 stated conditions; on March 20, 1985, supplemented its said
26 conditions for former Class III landfills, which are now defined
27 under subchapter 15 of Title 23 of the California Administrative
28 Code, Section 2524, as 'Inert Waste' landfills; and on July 3,
1985, adopted its Resolution No. 7-85-45, reaffirming and
formalizing its previously stated policy on landfill operations

1 in said Basin; and

2 WHEREAS, Watermaster now, in recognition of the great
3 public need for sites for waste disposal and the more necessary
4 public need for preservation of the quality of groundwater
5 supplies of substantial groundwater Basins used principally for
6 domestic water supplies, hereby amends its previously adopted
7 position on landfills to be permitted in the Basin and relevant
8 watershed, including the extension or enlargement of any
9 existing landfills which overlie said Basin:

10 NOW, THEREFORE, BE IT RESOLVED BY THE MAIN SAN GABRIEL BASIN
11 WATERMASTER that to protect the quality of the water in the
12 Basin, Watermaster will vigorously oppose any new landfill
13 operations, including the extension or enlargement of existing
14 ones, which overlie said Basin, except for Inert Waste landfills
15 and waste disposal sites which meet the conditions set forth
16 hereinafter, and future amendments thereto. Only Inert Waste
17 landfills and waste disposal sites shall be permitted in any
18 area overlying the Main San Gabriel Basin. All permits for such
19 Inert Waste landfills and waste disposal facilities shall
20 include the following conditions:

- 21 1. Inert Waste landfills and disposal sites shall be
22 filled directly by the site operator pursuant to a
23 prior written plan for such disposal or pursuant to a
24 prior written contract between the site operator and
25 the waste disposer, both assuring that such fill and
26 wastes shall consist only of inert materials as
27 currently defined by said subchapter 15 and by the Los
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Angeles Regional Water Quality Control Board, and such definition shall exclude tires, wood and plaster-board; provided, however, inert materials removed from reservoirs and debris basins in the watershed tributary or adjacent to San Gabriel Valley may be deposited in Inert Waste landfills and disposal sites so long as such material is comprised of the native watershed mantle naturally eroded as sediment entering such reservoirs and debris basins and contains no more than five percent (5%) organic material, by volume, and contains no tree stumps, branches or similar material. Any such tree stumps, branches or similar material must be removed before the remaining inert material is deposited in said landfill or debris basin. There shall be no individual waste load deposited in the said disposal sites except pursuant to a prior written contract therefor.

2. There shall be no placing of any material classified as hazardous waste by the State Department of Health Services, County Health Department, U. S. Environmental Protection Agency, State Water Resources Control Board, the Solid Waste Management Board, or any other responsible Federal, State, or local agency, whether or not any of said agencies can, would, will, or have waived any limitations on the disposal of said classified hazardous material or waste, into an Inert Waste landfill or disposal site.

3. Before commencing landfill operations the proposed

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operator thereof shall complete an underwater survey and cause the removal of any container, drum, or other material or objects found therein which may or could pose a threat to the surrounding and underlying groundwater quality.

- 4. The proposed site shall be adequately secured against unauthorized entry.
- 5. Before commencing landfill operations the proposed operator thereof shall file an adequate surety to guarantee compliance with the Conditional Use Permit therefor and with the conditions of the Permit of the Regional Water Quality Control Board.
- 6. No materials shall be dumped directly into standing groundwater. As used herein, groundwater includes water in pits, holes, lakes, ponds or any other excavations which are, or could in the future, be in hydraulic contact with water under the land's surface. Inert materials authorized to be placed in the waste disposal sites shall first be spread on level ground for purposes of inspection to reveal materials prohibited from disposal therein. All prohibited materials shall be removed from the site immediately.
- 7. The landfill operator shall provide reasonable and adequate monitoring by appropriate test wells to protect the underlying and adjacent water quality. Before commencing operations said operator shall obtain a discharge permit from the Los Angeles Regional Water Quality Control Board.

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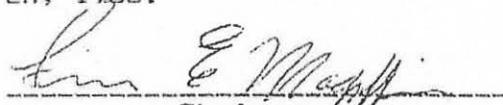
8. The site operator shall maintain a manifest of all materials placed in the site, its source and the name and address of the disposer thereof.

9. The site operator shall provide adequate closure of the site, sufficient to protect the underlying groundwater quality.

10. All plans, contracts, manifests and other records of landfill and waste disposal operations shall be made and kept available for review by the permitting agency or agencies and by anyone so designated by such agency or agencies.

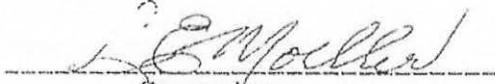
Section 2. Except as hereby amended, Resolution No. 7-85-45 is, hereby, affirmed and readopted as so amended.

Dated this 2nd day of March, 1988.



Chairman

Attest:



Secretary

ATTACHMENT B



October 19, 1998

Ms. Jennifer A. Lilley
Project Planner
City of Irwindale
5050 North Irwindale Avenue
Irwindale, CA 91706

Subject: Reclamation of Gravel Pits

Dear Ms. Lilley:

Thank you for your letter concerning quarry sites within the City of Irwindale. The Main San Gabriel Basin Watermaster appreciates your efforts to include our comments and concerns in your evaluation process.

Watermaster has been and continues to be involved with the protection and preservation of surface and groundwater quality in the San Gabriel Valley. Watermaster's involvement is very broad and includes basin management plans for water supply and water quality, identification and implementation of groundwater contamination clean-up projects, contaminant migration modeling studies, and technical review of existing and proposed projects that may pose a threat to surface and/or groundwater quality. Therefore, the existing quarry sites and their proposed reclamation plans are a serious concern for Watermaster.

One common reclamation option involves filling the site with waste material. Watermaster has taken a strong position opposing proposed landfills, except those that will accept only inert material. This position is stated in Watermaster's Resolution No. 3-88-57, regarding operation of inert waste landfills in former or existing quarry sites. Watermaster also diligently opposed the Azusa Land Reclamation Landfill and succeeded in closing it to municipal solid waste.

The potential use of quarry sites for recreational lakes poses a unique set of concerns and issues. Generally, any exposure of the groundwater in quarry or other sites presents serious concerns with water quality protection. Groundwater would no longer be protected by a substantial depth of soil cover, which would otherwise provide a safety margin for accidental or intentional contamination.

Ms. Jennifer A. Lilley
October 19, 1998
Page 2

A controlled recreational use may be acceptable, providing adequate levels of monitoring and protection programs are implemented. The use of quarry sites for diversion and storage of excess storm runoff for water conservation purposes is another common use.

If recreational uses are proposed, the following general concerns must be considered during the review process:

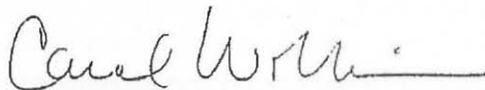
1. No body contact permitted.
2. Self-contained restroom facilities with off-site disposal.
3. No oil, gas or petroleum products on site.
4. Fishing boats limited to electric motor, oars or paddles. No jet skis or other types of recreational watercraft.
5. No concession facilities below natural grade.
6. Entire site fenced with 24-hour security provided.
7. Develop and implement a water quality monitoring program.
8. Post a security bond to guarantee the remediation of any future contamination impacts.

You should be aware that the groundwater levels in this portion of the basin have varied as much as 90 to 100 feet, depending upon hydrologic conditions.

If you have any questions or if you have any concerns regarding a plan for quarry site reclamation, please contact me at (626) 815-1300 to set up a meeting to further discuss Watermaster concerns.

Sincerely,

MAIN SAN GABRIEL BASIN WATERMASTER



Carol Williams
Executive Officer

CW/jw

bcc: Stetson Engineers

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

ORDER NO. R4-2016-0xxx

WASTE DISCHARGE REQUIREMENTS

For

**Hanson Aggregates LLC
Irwindale Quarry Inert Landfill
(File No. 78-023)**

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board), finds:

1. Hanson Aggregates LLC (Discharger), formerly known as Livingston-Graham, Inc., operates the Irwindale Quarry at 13550 Live Oak Avenue in the City of Irwindale, California. The facility is located to the west of the 605 Freeway, approximately 1,200 feet southwest of Live Oak Avenue, and is generally bounded by the Irwindale Speedway on the north, the San Gabriel River on the east, Peck Road Landfill on the west, and commercial, industrial, and residential uses on the south (Figure 1).
2. The Irwindale Quarry is a 492-acre sand and gravel mining facility that has been utilized for mining and processing of aggregate since 1909. Mining will end when the maximum permitted mining depth (0 feet above mean sea level, or approximately 350 feet below the surrounding grade elevation) is reached across the pit bottom or December 31, 2030, whichever occurs first. The Irwindale Quarry entitlements, which include a Development Agreement, Conditional Use Permit No. 10-05 ("CUP"), and a Mining/Processing Operations and Reclamation Plan (the "Reclamation Plan"), require the Discharger to backfill a portion of the Irwindale Quarry site, known as the "40-Acre Fill Area" (Landfill) with engineered fill to facilitate future subsequent commercial development. Reclamation backfilling is required to be completed with specified clean dirt and inert materials.
3. Historically, the Discharger has been permitted to discharge inert solid waste at the quarry under two sets of waste discharge requirements (WDRs) adopted by the Regional Board. Areas that have been used for waste disposal are illustrated in Figure 2. The Irwindale Plant Dump disposal area, which is located at the southernmost portion of the quarry within the City of Arcadia, was regulated under Order No. 71-17 adopted on June 21, 1971, and subsequently under Order No. 86-45 adopted on June 23, 1986. The Irwindale Dike disposal area, which is located to the northern portion of the facility, was regulated under Order No. 78-138 adopted on November 27, 1978, and subsequently under Order No. 86-40 adopted on June 23, 1986. On December 6, 1993, the Regional Board adopted Order No. 93-076 that included WDRs for all inert waste discharge activities at the facility and terminated Order Nos. 86-40 and 86-45.
4. In accordance with CUP No. 10-05 approved by the City of Irwindale on December 20, 2005, and the Reclamation Plan for the mining site, the Landfill will be backfilled to street level and developed with hotel and commercial uses. The reclaimed end-use of the entire mining facility will include a lake and recreational, commercial, and industrial land uses.

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5. Section 20230(a) of title 27, California Code of Regulations (27 CCR), provides that *"Inert waste is that subset of solid waste that does not contain hazardous waste or soluble pollutants at concentrations in excess of applicable water quality objectives, and does not contain significant quantities of decomposable waste."*
6. Section 20230(c) of 27 CCR provides that the Regional Board can prescribe individual or general WDRs for discharges of inert wastes.
7. California Water Code (CWC) section 13263 (e) provides that all WDRs shall be reviewed periodically and, upon such review, may be revised by the Regional Board to comply with changing state or federal laws, regulations, policies, or guidelines. This Order revises the WDRs included in Regional Board Order No. 93-076 to include updated requirements and describe current site conditions.
8. The Discharger has submitted to the Regional Board a revised Report of Waste Discharger (ROWD) in accordance with the CWC, dated October 7, 2015, to facilitate the revision of the WDRs.
9. The quarry overlies an aquifer that is a major source of drinking water in the Main San Gabriel Basin in the Los Angeles-San Gabriel Hydrologic Area. Aquifers within the basin are comprised primarily of coarse sand and gravel. The direction of groundwater flow at the Site is generally to the southwest and south.
10. Groundwater at the site has been exposed by the mining activities and formed a lake at the bottom of the mining pit. Currently, the extraction of aggregate materials is being conducted from both above groundwater level by conventional excavation and from under groundwater with dredging equipment.
11. Groundwater monitoring has been conducted at the site since 1986. A review of the monitoring data indicates that the groundwater quality at the site has not been adversely affected by mining or landfilling operations.
12. The quarry site is immediately surrounded by light and heavy manufacturing areas and active gravel pit operations. The nearest residential areas lie approximately 300 feet to the south. The Santa Fe Dam, a flood control structure, is approximately 5,000 feet to the northeast. The Landfill is in the vicinity of the San Gabriel River, which has been used for spreading groundwater for recharge purposes.
13. The site is not within a 100-year flood plain hazard zone as defined by the Federal Emergency Management Agency (FEMA) and is within the FEMA Zone C designation or "zone of minimal flooding".
14. The quarry site is subject to reclamation as required by the State Surface Mining and Reclamation Act of 1975 (SMARA) (Public Resources Code § 2710 et seq.). The requirements in this Order, as they are met, are in conformance with the requirements of SMARA.
15. This Order requires the Discharger to take any and all necessary measures to protect water of the state during the inert waste disposal operations at the Landfill. The Discharger has submitted a revised Inert Fill Load Checking Program (LCP) for the Landfill, dated

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October 7, 2015, to prevent unauthorized wastes from being discharged at the Landfill. The LCP, which has been approved by the Executive Officer, includes procedures for material acceptance and tracking, load inspection, employee training, and large source verification.

16. On December 20, 2005, the City of Irwindale approved Resolution No. 2005-89-2106 that adopted technical guidelines for the backfilling of open-pit mines within the City, including: Guidelines for Stability Analyses of Open-pit Mine Slopes, Guidelines for Drainage and Erosion Control for Open-pit Mines, Guidelines for Underwater Backfilling of Open-Pit Mines, and Guidelines for Above-Water Backfilling of Open-Pit Mines. Reclamation backfilling of the quarry is subject to the guidelines.
17. Pursuant to section 402 (p) of the Clean Water Act (33 USC §1342(p)) and title 40 of the Code of Federal Regulations (40 CFR) parts 122, 123, and 124, the California State Water Resources Control Board (State Board) adopted a National Pollutant Discharge Elimination System (NPDES) General Permit to regulate storm water discharges associated with industrial activities in California (State Board Order 2014-0057-DWQ). Storm water runoff from the mining facility is currently regulated under the general NPDES permit (WDID No. 4 19I020379, Notice of Intent filed on June 22, 2015). The Discharger is implementing a Storm Water Pollution Prevention Plan (SWPPP) at the Site as required by the general NPDES permit.
18. On June 13, 1994, this Regional Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan). The Basin Plan (including its subsequent amendments) designates the following beneficial uses for groundwater within the Main San Gabriel Basin: municipal and domestic supply, agricultural supply, industrial process supply, and industrial service supply. The requirements in this Order, as they are met, are consistent with the Basin Plan.
19. On December 20, 2005, the City of Irwindale, as the lead agency, certified an Environmental Impact Report (EIR, SCH No. 2003011084) pursuant to the California Environmental Quality Act (CEQA, Public Resource Code, Section 21000 et seq.) in connection with the review and approval of CUP No. 10-05 for the mining facility. The Regional Board is a responsible agency with respect to the WDRs. The revision of these WDRs does not result in expansion of the existing operations of the facility or new potentially significant impacts not previously considered in the EIR. Therefore, the Regional Board's renewal of existing WDRs for an existing facility that involves negligible or no expansion beyond the previously permitted activity is exempt from CEQA in accordance with the CEQA Guidelines, 14 Cal. Code Regs. §15301.
20. The Regional Board has notified the Discharger and interested agencies and persons of its intent to adopt WDRs for this disposal of waste to land, and has provided interested persons with an opportunity to submit written comments and make oral comments at a hearing..

The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge and to the tentative requirements.

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IT IS HEREBY ORDERED, that the Discharger shall comply with the following requirements:

A. Acceptable Materials:

1. Wastes disposed of at the Landfill shall be limited to inert wastes as proposed in the ROWD, including inert earth, rock, gravel, broken concrete, brick, and inert mining wastes that are generated from on and offsite aggregate mining operations.
2. The Discharger shall remove and relocate to a legal point of disposal any wastes that are discharged in violation of the requirements of this Order. For the purpose of these requirements, a legal point of disposal is defined as one for which WDRs have been established by a California regional water quality control board, and is in full compliance therewith. In the event that the Discharger opts for a legal point of disposal outside the State of California, the legal point of disposal means a facility that is lawfully permitted under applicable state and federal laws to receive the type of waste improperly disposed of at the site.
3. Unless otherwise permitted by the Executive Officer, all waste disposal activities shall be within the 40-acre disposal area as illustrated in Figure 2.

B. Prohibitions:

1. No hazardous wastes, designated wastes, tires, or liquid wastes shall be deposited at the Landfill.
2. No non-hazardous solid wastes (decomposable organic refuse such as, but not necessarily limited to, ordinary household and commercial refuse, tin cans, metals, paper and paper products, plasterboard, cloth and clothing, wood and wood products, lawn clippings, sod, shrubbery, hair, hide, bones, dead animals, roofing paper, tar paper, unquenched ashes mixed with refuse, market refuse, garbage, etc.) shall be deposited at the Landfill.
3. No materials of a toxic nature such as insecticides and poisons shall be deposited at the Landfill.
4. No radioactive material as determined by a regulatory agency with jurisdictional authority shall be deposited at the Landfill.
5. No asbestos or asbestos products shall be deposited at the Landfill.
6. Erosion of deposited materials by surface flow shall be prevented.
7. Neither the discharge nor any treatment of wastes shall cause pollution or nuisance.
8. No chemical additives shall be used at the Landfill unless such use is approved by the Executive Officer in advance.

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C. Groundwater Monitoring:

1. The Discharger shall implement the attached Monitoring and Reporting Program (MRP) No. CI-6446, and revisions thereto, which is incorporated herein by reference, in order to detect, at the earliest opportunity, any unauthorized discharge of waste constituents from the Landfill or any unreasonable impairment of beneficial uses associated with (or caused by) discharge of wastes from the Landfill. MRP No. CI-6446 is designed to satisfy both federal and state regulatory monitoring requirements.
2. At any time, the Discharger may file a written request, including appropriate supporting documents, with the Executive Officer, proposing modifications to MRP No. CI-6446. The Discharger shall implement any changes in the revised MRP approved by the Executive Officer upon receipt of a signed copy of the revised MRP.
3. Unless otherwise approved by the Executive Officer, all analyses shall be conducted at a laboratory certified by the State Board, Division of Drinking Water (DDW). All analyses shall be conducted in accordance with the latest edition of "*Test Methods for Evaluating Physical/Chemical Methods*" (SW-846) promulgated by the United States Environmental Protection Agency.
4. The Discharger shall provide for proper handling and disposal of water purged from monitoring wells at the Landfill during sampling. Water purged from a monitoring well shall not be returned to that well (or any other monitoring well).
5. For any monitoring points installed at the Landfill in the future, the Discharger shall submit technical reports for approval by the Executive Officer prior to installation. These technical reports shall be submitted at least 60 days prior to the anticipated date of installation of the wells. These reports shall be accompanied by:
 - a. A map depicting the locations of the groundwater monitoring points and a rationale for their number, depths, and spatial distribution.
 - b. Drawings and data depicting construction details of the proposed groundwater monitoring network. These must include:
 - casing, borehole diameters and methods of drilling;
 - casing materials to be used;
 - depth of each borehole;
 - size, length, and position of screen;
 - method of joining sections of casing;
 - nature and emplacement of filter pack and rationale for them;
 - depth, composition, and emplacement of seals; and
 - method and timetable for well development.

Within 30 days of the installation of a groundwater monitoring well (or monitoring point) at the Landfill, the Discharger shall submit an as-built report to the Regional Board and the California Department of Water Resources (DWR), including delineation of the stratigraphy encountered, all water bearing zone(s) encountered and water quality data.

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6. As of the effective date of this Order, the compliance monitoring points at the Landfill shall consist of those wells listed in section II.B of the MRP. All monitoring points shall be monitored pursuant to this Order or as directed by the Executive Officer through future revisions of the MRP
7. The Discharger shall install any additional groundwater, soil pore liquid, soil pore gas, or leachate monitoring devices necessary to comply with the MRP, as adopted or as revised by the Executive Officer.
8. The point of compliance (POC) for groundwater monitoring for the Landfill is a vertical surface located at the hydraulically downgradient limit of the Landfill that extends through the uppermost aquifer underlying the Landfill pursuant to 27 CCR section 20405(a).

D. Water Quality Protection Standards:

1. In accordance with the Basin Plan, the following groundwater quality protection standards are established for the Landfill:

<u>Parameter</u>	<u>Units</u>	<u>Water Quality Protection Standard*</u>
Total dissolved solids	mg/L	450
Sulfate	mg/L	300 100
Chloride	mg/L	100
Nitrate (as NO ₃)	mg/l	45
Boron	mg/L	10 5

* Based on the water quality objectives in the Basin Plan for the western area of the Main San Gabriel Basin

2. Groundwater protection standards for other inorganic and organic pollutants for the site are the water quality objectives to protect the beneficial uses, including MCLs, promulgated in Title 22 of California Code of Regulations and incorporated into the Basin Plan by reference.
3. Water Quality Protection Standards may be modified by the Regional Board based on more recent and/or more complete groundwater monitoring data, changes in background water quality, or for any other valid reason. The points of compliance of groundwater protection standards for the Landfill shall be the downgradient groundwater monitoring points established in the MRP No. CI-6446, which is incorporated herein by reference.

E. Provisions:

1. The Discharger shall take any and all necessary measures to prevent unauthorized disposal of wastes at the Landfill. Such measure shall be included in a load checking program approved by the Executive Officer.
2. The Discharger shall furnish, under penalty of perjury, technical or monitoring program reports in accordance with CWC section 13267. Failure or refusal to furnish

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these reports or falsifying any information provided therein renders the Discharger guilty of a misdemeanor and subject to the penalties stated in CWC section 13268. Monitoring reports shall be submitted in accordance with the specifications contained in the MRP, as directed by the Executive Officer. Additionally, monitoring reports shall be prepared by, or under the supervision of, and signed by a California professional civil engineer or professional geologist. The MRP is subject to periodic revisions as warranted and approved by the Executive Officer.

3. The Discharger shall use the statistical procedures contained in 27 CCR section 20415(e)(7), to determine if there is a statistically significant increase for any background indicator parameter. Upon approval of the Executive Officer, alternative statistical procedures may be used.
4. In the event that a statistically significant increase is observed for any background indicator parameter, the Discharger shall establish an evaluation program in accordance with 27 CCR section 20425, unless such a program has already been submitted.
5. If evaluation monitoring determines that there is a statistically significant increase of any background indicator parameter that is resulted by the discharge of waste at the Landfill, then the Discharger shall institute a corrective action monitoring program in accordance with 27 CCR section 20430.
6. If the Discharger becomes aware that it failed to submit any relevant facts in any report to the Regional Board, it shall submit such facts or information within fourteen days of its discovery of the omission.
7. All applications, reports, or information submitted to the Regional Board shall be signed and certified as follows:
 - a. Applications, ROWDs, or similar documents shall be signed as follows:
 - i. For a corporation - by a principal executive officer of at least the level of vice-president.
 - ii. For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.
 - iii. For a municipality, state, federal or other public agency - by either a principal executive officer or ranking elected official.
 - iv. For a military installation - by the base commander or the person with overall responsibility for environmental matters in that branch of the military.
 - b. All other reports required by this Order and other information required by the Executive Officer shall be signed by a person designated in paragraph [a] of this provision, or by a duly authorized representative of that person. An individual is a duly authorized representative only if:
 - i. The authorization is made in writing by a person described in paragraph [a] of this provision;

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- ii. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity; and
 - iii. The written authorization is submitted to the Executive Officer.
- c. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or 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 for knowing violations."

- 8. The Discharger shall maintain copies of this Order at the Landfill so as to be available at all times to personnel operating the Landfill.
- 9. The Discharger shall file with this Regional Board a report of any material change or proposed change in the character, location, boundaries or quantity of this waste discharge at least 120 days prior to the date of such proposed change.
- 10. The Regional Board shall be notified of any incident at the Landfill that are in violation of this Order and that may endanger the environment, by telephone within 24 hours from the time the Discharger becomes aware of the circumstances, and in writing within 14 days of the time that the Discharger becomes aware of the circumstances. The written notification shall fully describe the incident including what occurred, when it occurred, the duration of the incident, when correction occurred (or when correction will occur if it is a continuing incident), and the steps taken or planned to reduce, eliminate, and/or prevent recurrence of the incident. All instances of noncompliance with this Order shall also be reported to the Regional Board in the same manner as stated above, and shall also be included in the next scheduled monitoring report.
- 11. Within thirty (30) days of any change in name of operator or in control or ownership of land or waste disposal facilities owned or controlled by the Discharger, the Discharger shall:
 - a. Notify this Regional Board in writing of such a change; and
 - b. Notify the succeeding owner or operator by letter, a copy of which shall be filed with this Regional Board, of the existence of this Order.
- 12. Ninety (90) days prior to cessation of disposal operations at this Landfill, the Discharger shall submit a technical report to the Regional Board describing the methods and controls to be used to assure protection of the quality of receiving waters during final operations and with any proposed subsequent use of the land. Such methods and controls shall comply with the foregoing technical report and the WDRs.

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The report shall be prepared under the direct supervision of a California registered geologist or professional civil engineer, or a California-certified engineering geologist.

13. This Regional Board considers the Discharger to have continuing responsibility for correcting any problems which may arise in the future as a result of this waste discharge or water applied to the Landfill during subsequent use of the land for other purposes.
14. These requirements do not exempt the Discharger from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this waste disposal facility, and they leave unaffected any further restraint on the disposal of wastes at the Landfill which may be contained in other statutes or required by other agencies.
15. In accordance with CWC section 13263(g), these requirements shall not create a vested right to continue to discharge and are subject to rescission or modification. All discharges of waste into the waters of the State are privileges, not rights.
16. The Discharger shall comply with all conditions of this Order and any additional conditions prescribed by the Regional Board in addenda thereto. Noncompliance with this Order constitutes a violation of the CWC and is grounds for:
 - a. enforcement action;
 - b. termination, revocation and re-issuance, or modification of this Order;
 - c. denial of a ROWD in application for new or revised WDRs; or
 - d. any combination of the foregoing.
16. Failure to comply with the terms and conditions of this Order may result in imposition of civil liability against the Discharger by this Regional Board, either by the Board or judicially by the Superior Court, in accordance with CWC section 13350 et. seq. and/or referral to the Attorney General of the State of California for such legal action as may be deemed appropriate.
17. The Discharger shall furnish, within a reasonable time, any information the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order
18. This Order includes the attached "Standard Provisions Applicable to Waste Discharge Requirements" (Attachment "W"), which is incorporated herein by references. If there is any conflict between provisions stated hereinbefore and the attached "Standard Provisions Applicable to Waste Discharge Requirements", those provisions attached hereinbefore prevail.
18. In accordance with CWC section 13263, these requirements are subject to periodic review and revision by this Regional Board.
19. The filing of a request by the Discharger for the modification, revocation and re-issuance, or termination of this Order or notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

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20. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.
21. Any person aggrieved by this action of the Regional Board may petition the State Water Board to review the action in accordance with California Water Code (CWC) section 13320 and 23CCR section 2050 and following. The State Water Board must receive the petition by 5:00 p.m., thirty days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.
22. This Order becomes effective on the date of adoption by this Regional Board.

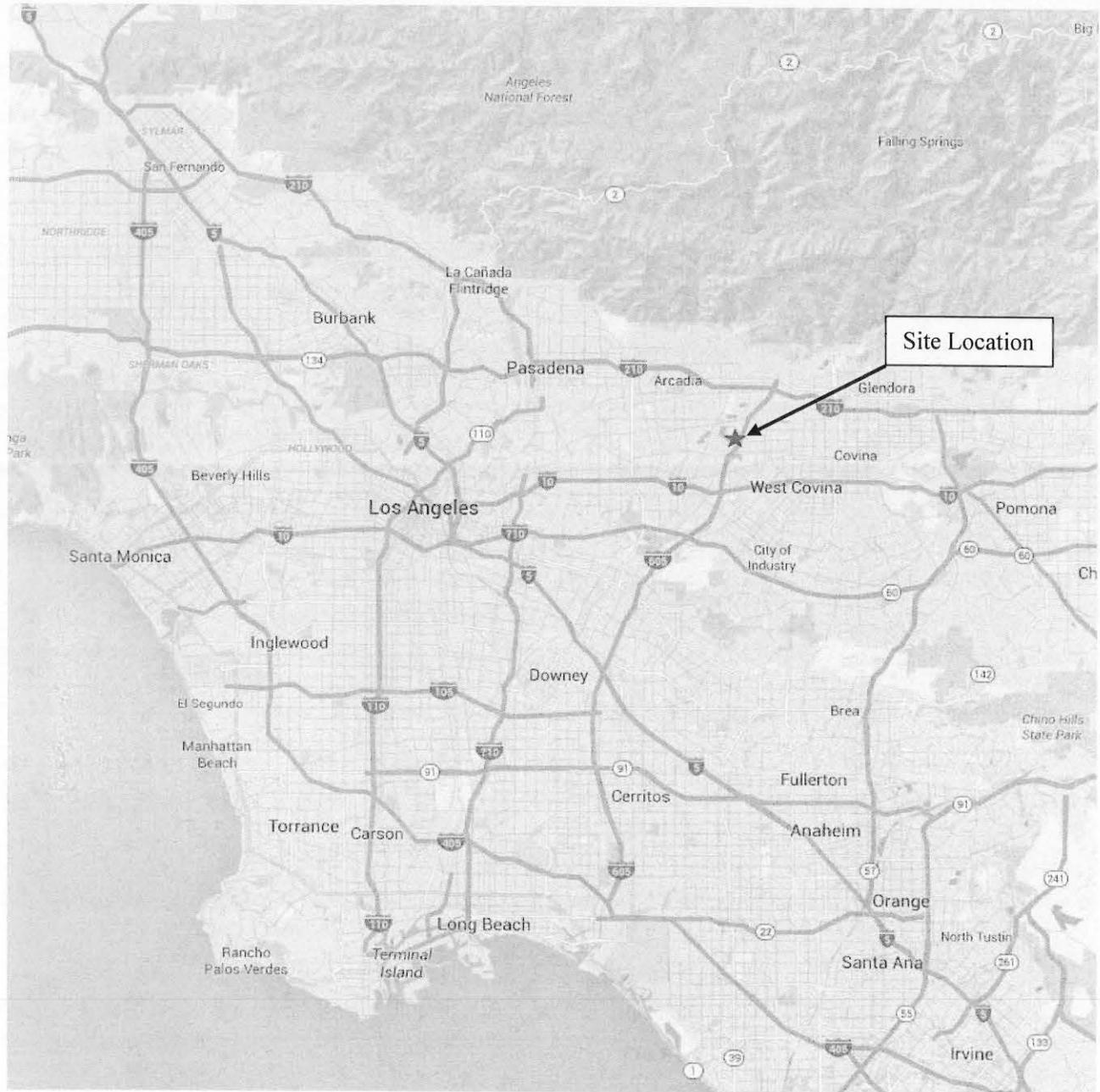
F. Termination

Except for purposes of enforcement of violations,, Regional Board Order No. 93-076, adopted December 6, 1993, is hereby terminated.

I, Samuel Unger, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an order adopted by the California Regional Water Quality Control Board, Los Angeles Region on February 11, 2016.

Samuel Unger, P.E
Executive Officer

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Figure 1. Location Map



Figure 2. Site Map

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. CI 6446

for

**Hanson Aggregates LLC
Irwindale Quarry Inert Landfill
(File No. 78-023)**

This Monitoring and Reporting Program (MRP, No. CI-6446) is issued by the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) to Hanson Aggregates LLC (Discharger) for the Irwindale Quarry Inert Landfill (Landfill) pursuant to California Water Code (CWC) section 13267(b). This MRP is incorporated by reference into Regional Board Order No. **R4-2016-0xxx** (Order), adopted on February 11, 2016. The Discharger shall begin implementing this MRP following the adoption of the Order. This MRP is required to assure compliance with the conditions of the Order and is issued to the Discharger, which is the owner and operator of the Landfill. The first monitoring report under this program is due by August 15, 2016.

I. Reporting

- A. Monitoring reports shall be submitted by the dates in the following schedule:

<u>Reporting Period</u>	<u>Report Due</u>
1 st Semi-Annual Report (for the period from January 1 to June 30)	August 15
2 nd Semi-Annual Report (for the period from July 1 to December 31)	February 15

The semi-annual reports shall include both groundwater monitoring data as required in Section II and the waste disposal information as required in Section III of this MRP. The 2nd Semi-Annual report shall include an annual summary of the data obtained during the calendar year.

- B. A transmittal letter that contains the essential points of the report shall accompany each report. Such a letter shall include a discussion of any violations found since the last such report was submitted, and shall describe actions taken or planned for correcting those violations. If the Discharger has previously submitted a detailed time schedule for correcting said violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred since the last submittal, this shall be stated in the transmittal letter. Monitoring reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice president or above, or by his/her duly authorized representative, if such a representative is responsible for the overall operation of the facility from which the discharge originates. The letter shall be signed and certified as required by Provision E.7 of the Order.
- C. The Discharger shall arrange the data in tabular form so that the specified information is readily discernible. The data shall be summarized in such a manner as to clearly illustrate whether the facility is operating in compliance with waste discharge requirements.

December 22, 2015
January 20, 2016

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- D. In the event that hazardous or other unacceptable wastes are detected, the Regional Board shall be notified by telephone or facsimile within 24 hours and by writing within 7 days. The type, source, and final disposition of those wastes shall also be reported.
- E. If the Discharger performs analyses for any parameter more frequently than required by this MRP, using approved analytical methods, the results shall be included in the monitoring report.
- F. The Discharger may submit additional data to the Regional Board that are not required by this MRP in order to simplify reporting to other agencies.
- G. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records regarding monitoring instrumentation, and copies of all data submitted to regulatory agencies, for a period of at least five years. This period may be extended by request of the Regional Board at any time, and shall be extended during the course of any unresolved litigation regarding all or any part of the entire Landfill.
- H. The reporting period and the compliance file number (CI-6446) must be clearly displayed on the title page to facilitate routing to the appropriate staff and file.
- I. Unless it is otherwise required by the Executive Officer, all reports required under this MRP shall be submitted to the State Water Resources Control Board (State Board) Geotracker database system in the form of searchable Portable Document Format (PDF) files. In addition, any groundwater monitoring data shall also be submitted to Geotracker in Electronic Deliverable Format (EDF). A hard copy of the report, including all original laboratory reports and field records that are used in preparation of the reports, must be kept in the Landfill's Operating Record and be available for review by Regional Board staff.

II. Water Quality Monitoring

- A. The groundwater monitoring network of the Landfill shall include monitoring wells 1S/11W-01H (upgradient), 1S/11W-12C01 (down gradient), and 1S/11W-11C04 (down gradient) and a surface sampling point for the exposed groundwater in the mining quarry, at a location down gradient and as close as practical to the 40 acre Landfill area (Figure T-1). All groundwater monitoring points must be monitored semi-annually. The Executive Officer may require the Discharger to install additional groundwater monitoring points, including the installation of monitoring wells, with the progress of landfill operations at the Landfill.
- B. All water samples shall be analyzed for the following constituents:

<u>Parameter</u>	<u>Units</u>
pH	pH units
Electrical conductivity	umhos/cm
Alkalinity	mg/l
Chemical oxygen demand	mg/l ¹
Total dissolved solids	mg/l
Total Hardness	mg/l
Chloride	mg/l

¹ ml/l = milligram per liter.

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Sulfate	mg/l
Nitrate (as NO ₃)	mg/l
Boron	mg/l
Cadmium	µg/l ²
Chromium	µg/l
Iron	µg/l
Lead	µg/l
Nickel	µg/l
Volatile organic compounds (VOCs) (USEPA Method 8260B)	µg/l

- C. Semi-annual sampling shall be performed during the months of May and November. In the event sampling is not performed as above because of unforeseen circumstances, substitute sampling shall be performed as soon as possible after these times, and the reason for the delay shall also be given.
- D. The groundwater-monitoring program is to be continued even during periods when no wastes are deposited at the Landfill, and throughout the active life of the Landfill.
- E. All analyses shall be conducted at a laboratory certified for such analyses by the State Board Division of Drinking Water Environmental Laboratory Accreditation Program, or approved by the Executive Officer. Laboratory analyses must follow methods approved by the United States Environmental Protection Agency (EPA), and the laboratory must meet EPA Quality Assurance/Quality Control criteria.
- F. For any analyses performed for which no procedure is specified in the EPA guidelines, or in this Order, the constituent or parameter analyzed, and the method or procedure used, must be specified in the report.
- G. Analytical data reported as "less than" shall be reported as less than a numeric value, or below the limit of detection, for that particular analytical method.
- H. All analytical samples obtained for this MRP shall be grab samples. The water quality monitoring report must also include the following:
1. Sampling protocol and analytical methods used;
 2. Chain of custody documentation;
 3. Well purge data;
 4. If any required samples were omitted during the reporting period, a statement to that effect shall be made and reasons given for any omission;
 5. Groundwater elevations measured to the nearest 0.01 foot relative to mean sea level. The velocity and direction of ground water flow under the Landfill shall be determined after each monitoring event and reported;

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² µg/l = microgram per liter.

6. For any monitored waste parameter which is listed as such by the EPA or by the State of California, the discharger shall compare such data to the most stringent allowable concentrations under all existing Federal and State regulations;
7. An evaluation of the results of the testing signed by a California professional geologist or professional civil engineer.

III. Waste Disposal Reporting

All semi-annual reports to the Regional Board shall include the following information:

- A. A map showing the areas at the landfill where wastes were deposited during the monitoring period.
- B. A tabular list of the estimated average monthly quantities (in cubic yards or tons) of materials deposited each month and the methods of disposal.
- C. Quantities (in tons or cubic yards) of unacceptable materials (such as household trash, wood, etc.) that were removed and sent out from the Landfill in each month. The places where these unacceptable materials were sent to shall also be reported.
- D. Quantities (in tons or cubic yards) of recycled materials (such as steel, crashed concrete, asphalt, etc.) that were sent out from the Landfill in each month.
- E. An estimate of the remaining life of the Landfill in years and months.
- F. A certification that all wastes disposal operations at the Landfill were in compliance with the Regional Board's requirements.

These records and reports are public documents and shall be made available for inspection during normal business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region.

Ordered by: _____
Samuel Unger, P.E.,
Executive Officer

Date: February 11, 2016

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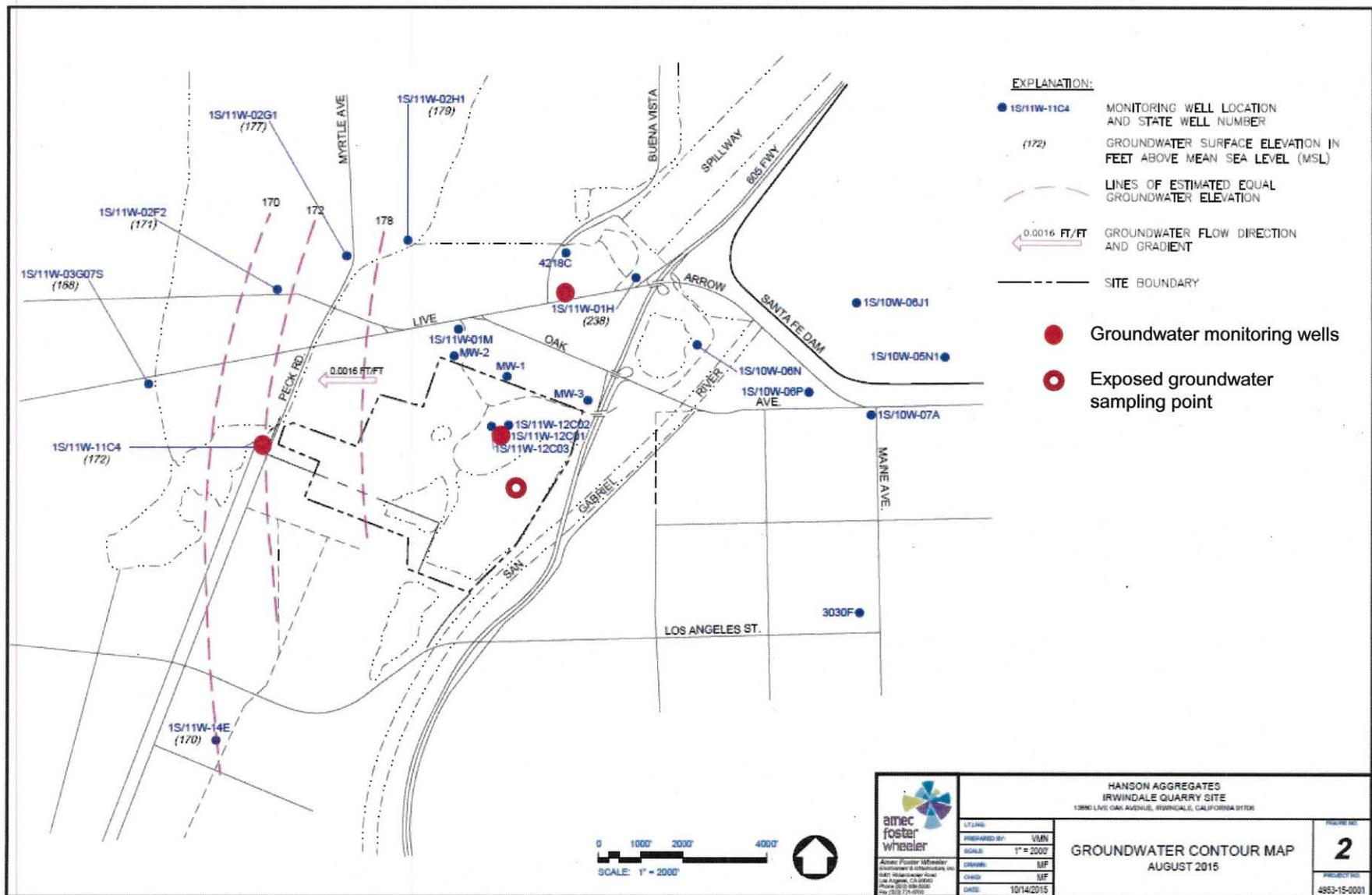


Figure T - 1. Groundwater Monitoring Network