

**SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**



ITEM
12.2
(ID # 6414)

MEETING DATE:
Tuesday, March 20, 2018

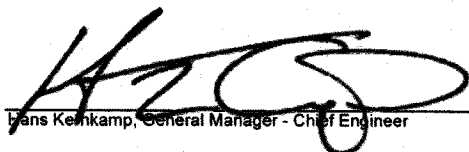
FROM : DEPARTMENT OF WASTE RESOURCES:

SUBJECT: DEPARTMENT OF WASTE RESOURCES: Resolution No. 2018-043 for the Adoption of a Mitigated Negative Declaration and Approval of the Mecca II Landfill Closure and Post-Closure Maintenance Project, District 4 [\$0-Department of Waste Resources Enterprise Funds]

RECOMMENDED MOTION: That the Board of Supervisors:

1. Adopt Resolution No. 2018-043, approving the Mecca II Landfill Closure and Post-Closure Maintenance Improvement Project (Project) and adopting the Mitigated Negative Declaration (MND) and Mitigation Monitoring Program (MMP) for the Project, based on the findings incorporated in Environmental Assessment (EA) No. 2017-02, concluding that with mitigation, the Project does not cause significant environmental impacts; and
2. Direct the Department of Waste Resources to file the attached Notice of Determination (NOD) with the County Clerk for posting within five days of approval by the Board.

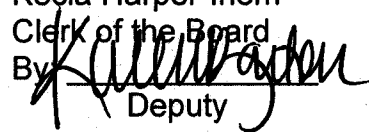
ACTION: Policy


Hans Keenkamp, General Manager - Chief Engineer 3/7/2018

MINUTES OF THE BOARD OF SUPERVISORS

On motion of Supervisor Perez, seconded by Supervisor Ashley and duly carried by unanimous vote, IT WAS ORDERED that the above matter is approved as recommended.

Ayes: Jeffries, Tavaglione, Washington, Perez and Ashley
Nays: None
Absent: None
Date: March 20, 2018
xc: Waste

Kecia Harper-Ihem
Clerk of the Board
By 
Deputy

**SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,
STATE OF CALIFORNIA**

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost
COST	\$0	\$0	\$0	\$0
NET COUNTY COST	\$0	\$0	\$0	\$0
SOURCE OF FUNDS: Waste Resources Enterprise Fund			Budget Adjustment: No	
			For Fiscal Year: 17/18	

C.E.O. RECOMMENDATION: Approve

BACKGROUND:

Summary

The Mecca II Landfill is an active and fully permitted Class III municipal solid waste facility, owned and operated by the Riverside County Department of Waste Resources (RCDWR). The landfill has been in operation since 1982 and operates under Solid Waste Facility Permit (SWFP) No. 33-AA-0071. The Mecca II Landfill is only open two days per year. As the landfill is nearing its disposal capacity, the RCDWR is preparing for the closure and post-closure maintenance of the facility. The proposed Project involves two phases: Phase 1 involves activities associated with the closure of the landfill including excavation and grading for the construction of the final landfill cover, placement of the erosion control materials, and construction of drainage structures. Phase 2 involves the post-closure maintenance, monitoring, and enhancements of the landfill's environmental systems. The proposed closure and post-closure maintenance of the Mecca II Landfill complies with the landfill closure requirements of CCR Title 27 and the Resource Conservation and Recovery Act (RCRA).

California Environmental Quality Act (CEQA)

EA No. 2017-02 was prepared by the RCDWR to evaluate the potential environmental impacts from the proposed Project and to identify appropriate mitigation measures to reduce or eliminate these impacts. The EA was prepared in conformance with the California Environmental Quality Act (CEQA), California Code of Regulations (CCR) Section 15000 et. Seq. While the EA identified that the proposed Project has the potential to impact environmental resources, each of the potential impacts can be fully mitigated to below a level of significance with implementation of the mitigation measures identified in the EA. A MMP for the Project has been prepared incorporating these mitigation measures. As a result, the RCDWR has prepared a MND and MMP for adoption by the Board of Supervisors (Board), pursuant to sections 15063 and 15097 of the State CEQA Guidelines.

In accordance with the State CEQA Guidelines, the Notice of Intent to Adopt a Mitigated Negative Declaration (NOI) and EA were posted with the State Clearinghouse and the Riverside County Clerk. The EA was transmitted to responsible and trustee agencies, interested parties, and neighboring properties, for a 30-day comment period that began on January 9, 2018 and ended on February 7, 2018. Public notice advertising the comment period for the EA/MND was published in the Desert Sun. Copies of the NOI/EA were made available to the public at the

**SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,
STATE OF CALIFORNIA**

RCDWR Headquarters, the Riverside County Clerk, and the Mecca Branch Library, as well as made available on the RCDWR's website at <http://www.rcwaste.org>.

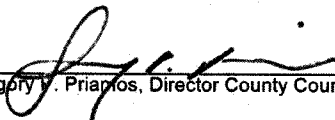
During the public comment period, comment letters were received from the Riverside County Flood Control and Water Conservation District, CalRecycle, and the Office of Planning and Research. No new significant environmental impacts were identified as a result of the comment letters. Furthermore, as no new significant effects were raised, the need for recirculation of the EA was not triggered, as stated under State CEQA Guidelines section 15073.5. Additions to the text within the EA are shown in underline to underscore text included in the document that was inadvertently excluded from the summary section of the draft EA. The correction does not include new mitigation as it merely moves text from one part of the document to another. EA comment letters along with RCDWR responses are included as Attachment C.

Impact on Residents and Businesses

The closure and post-closure maintenance of the landfill protects long-term public health and safety through effective monitoring of air and water quality and post-closure maintenance of the landfill.

ATTACHMENTS:

- Attachment A: Board Resolution No. 2018-043
- Attachment B: NOI, MND, and Final EA 2017-02
- Attachment C: EA Comments and RCDWR Responses
- Attachment D: Notice of Determination
- Attachment E: Mitigation Monitoring Program



Gregory V. Priamos, Director County Counsel 3/8/2018

2
3 **RESOLUTION NO. 2018-043**

4 **ADOPTING A MITIGATED NEGATIVE DECLARATION AND APPROVING THE**
5 **MECCA II LANDFILL CLOSURE AND POST-CLOSURE MAINTENANCE PROJECT**

6 **WHEREAS**, the Mecca II Landfill (hereinafter referred to as the "Landfill"), located at
7 95250 66th Avenue, in the southeast corner of 66th Avenue and Garfield Street in the
8 unincorporated community of Mecca, has been in operation since 1982 and is owned and
9 operated by Riverside County Department of Waste Resources (hereinafter referred to as the
10 "Department"); and,

11 **WHEREAS**, the Landfill is nearing its disposal capacity and is only open 2 days per
12 year; and,

13 **WHEREAS**, the Department is preparing for the closure and post-closure maintenance
14 of the Landfill (Project). The proposed Project involves two phases: Phase 1 involves activities
15 associated with the closure of the Landfill; excavation and grading for the construction of the
16 final cover, placement of erosion control materials, and construction of drainage structures.
17 Phase 2 involves the post-closure maintenance, monitoring, and enhancements of the Landfill's
18 environmental systems; and,

19 **WHEREAS**, the Project will comply with landfill closure requirements of CCR Title 27
20 and the Resources Conservation and Recovery Act (RCRA); and,

21 **WHEREAS**, the Project will provide for long-term public health and safety through
22 effective monitoring of air and water quality and post-closure maintenance of the Landfill; and,

23 **WHEREAS**, all requirements of the California Environmental Quality Act have been
24 met and the Department's General Manager-Chief Engineer has found that with mitigation, the
25 Project will not have a significant adverse effect upon the environment and a Mitigated Negative
26 Declaration was prepared; and,

27 **WHEREAS**, the Environmental Assessment/Mitigated Negative Declaration (SCH No.
28 2018011010) thoroughly addresses the environmental effects of implementing the Project,

FORM APPROVED COUNTY COUNSEL
BY: AAG 3.8.18 DATE
AARON C. GETTIS

1 including the construction and maintenance of the various improvements identified therein.

2 **NOW, THEREFORE, BE IT RESOLVED, DETERMINED AND ORDERED** by the
3 Board of Supervisors of the County of Riverside, in regular session assembled on March 20,
4 2018 that:

- 5 A. Review Period: The County has provided the public review period for the
6 Environmental Assessment/Mitigated Negative Declaration for the duration
7 required under State CEQA Guidelines sections 15073 and 15105.
- 8 B. Compliance with Law: The Environmental Assessment/Mitigated Negative
9 Declaration and Mitigation Monitoring Program were prepared, processed, and
10 noticed in accordance with the California Environmental Quality Act (Public
11 Resources Code Section 21000 et seq.) and the State CEQA Guidelines (14
12 California Code of Regulations Section 15000 et seq.).
- 13 C. Independent Judgement: The Environmental Assessment/Mitigated Negative
14 Declaration reflects the independent judgement and analysis of the County.
- 15 D. Mitigation Monitoring Program: The Mitigation Monitoring Program is designed
16 to ensure compliance during Project implementation in that changes to the Project
17 and/or mitigation measures have been incorporated into the Project and are fully
18 enforceable through permit conditions, agreements or other measures as required
19 by Public Resources Code Section 21081.6
- 20 E. No Significant Effect: That the adopted mitigation measures avoid or mitigate any
21 potential significant effects on the environment identified in the Environmental
22 Assessment/Mitigated Negative Declaration to a point below the threshold of
23 significance. Furthermore, after taking into consideration the adopted mitigation
24 measures, Board of Supervisors of the County of Riverside finds that there is no
25 substantial evidence, in light of the whole record, from which it could be fairly
26 argued that the Project may have a significant effect on the environment.
27 Therefore, the Riverside County Board of Supervisors concludes that the Project
28 will not have a significant effect on the environment.

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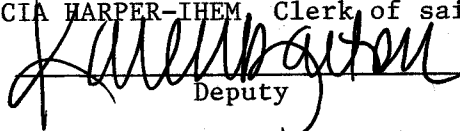
BE IT FURTHER RESOLVED by the Board of Supervisors that it **APPROVES** the Project and **ADOPTS** the Mitigated Negative Declaration and Mitigation Monitoring Program for the Project, based on the findings incorporated in EA No. 2017-02, concluding that with mitigation, the Project does not cause significant environmental impacts.

BE IT FURTHER RESOLVED by the Board of Supervisors that the custodians of the documents upon which this decision is based are the Clerk of the Board of Supervisors and the Department and that such documents are located at 14310 Frederick Street, Moreno Valley, California.

ROLL CALL:

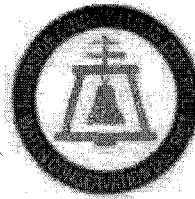
Ayes: Jeffries, Tavaglione, Washington, Perez and Ashley
Nays: None
Absent: None

The foregoing is certified to be a true copy of a resolution duly adopted by said Board of Supervisors on the date therein set forth.

KECIA HARPER-IHEM, Clerk of said Board
By  Deputy

***Attachment C: EA Comments and
RCDWR Responses***

JASON E. UHLEY
General Manager-Chief Engineer



1995 MARKET STREET
RIVERSIDE, CA 92501
951.955.1200
FAX 951.788.9965
www.rcflood.org

218476

COUNTY OF RIVERSIDE
WASTE MANAGEMENT
JAN 22 PM 3:56

RIVERSIDE COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT

January 18, 2018

Riverside County Department of Waste Resources
14310 Frederick Street
Moreno Valley, CA 92553

Attention: Jose Merlan

Re: Mecca II Landfill
Mitigated Negative Declaration
for EA No. 2017-02

The District does not normally recommend conditions for land divisions or other land use cases in incorporated Cities. The District also does not plan check City land use cases, or provide State Division of Real Estate letters or other flood hazard reports for such cases. District comments/recommendations for such cases are normally limited to items of specific interest to the District including District Master Drainage Plan facilities, other regional flood control and drainage facilities which could be considered a logical component or extension of a master plan system, and District Area Drainage Plan fees (development mitigation fees). In addition, information of a general nature is provided.

1-1

The District has not reviewed the proposed project in detail and the following comment does not in any way constitute or imply District approval or endorsement of the proposed project with respect to flood hazard, public health and safety or any other such issue:

1-2

- No comment. Mecca II landfill is outside the District operating zones.

GENERAL INFORMATION

This project may require a National Pollutant Discharge Elimination System (NPDES) permit from the State Water Resources Control Board. Clearance for grading, recordation or other final approval should not be given until the City has determined that the project has been granted a permit or is shown to be exempt.

1-3

If this project involves a Federal Emergency Management Agency (FEMA) mapped floodplain, then the City should require the applicant to provide all studies, calculations, plans and other information required to meet FEMA requirements, and should further require that the applicant obtain a Conditional Letter of Map Revision (CLOMR) prior to grading, recordation or other final approval of the project, and a Letter of Map Revision (LOMR) prior to occupancy.

1-4

If a natural watercourse or mapped floodplain is impacted by this project, the City should require the applicant to obtain a Section 1602 Agreement from the California Department of Fish and Wildlife and a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers, or written correspondence from these agencies indicating the project is exempt from these requirements. A Clean Water Act Section 401 Water Quality Certification may be required from the local California Regional Water Quality Control Board prior to issuance of the Corps 404 permit.

1-5

Very truly yours,

Mike M. Wong
MIKE WONG
Engineering Project Manager

c: Riverside County Planning Department
Attn: Kristi Lovelady

HY:blm

**Letter 1 Riverside County Flood Control and Water Conservation
District (District), January 18, 2018**

Response 1-1 Comment noted. No additional response required.

Response 1-2 Comment noted. No additional response required.

Response 1-3 Comment noted. No additional response required.

Response 1-4 The Mecca II Landfill Closure and Post-Closure Maintenance Project does not involve a Federal Emergency Management Agency (FEMA) mapped floodplain. Nothing further is required.

Response 1-5 No natural watercourse or mapped floodplain is adjacent to or in the direct vicinity of the project. No permits are required from the California Department of Fish and Wildlife or the U.S. Army Corps of Engineers.



DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY

1001 I STREET, SACRAMENTO, CALIFORNIA 95814 • WWW.CALRECYCLE.CA.GOV • (916) 322-4027

P.O. BOX 4025, SACRAMENTO, CALIFORNIA 95812

January 29, 2018

*clear
2/7/18*

Governor's Office of Planning & Research

JAN 31 2018

STATE CLEARINGHOUSE

Riverside County Department of Waste Resources
Attn: Jose Merlan, Urban/Regional Planner
14310 Fredrick Street,
Moreno Valley, CA 92553

Subject: SCH#2018011010 – Environmental Assessment No. 2017-02 for the Mecca II Landfill Closure and Post-Closure Maintenance Project – Riverside County, Facility No. 33-AA-0071

2-1

Dear Mr. Merlan:

Thank you for allowing the Department of Resources Recycling and Recovery (CalRecycle) staff to provide comments on the Mitigated Negative Declaration (MND), titled Environmental Assessment No. 2017-02 for the Mecca II Landfill Closure and Post-Closure Maintenance Project (Project), and for your agency's consideration of these comments as part of the California Environmental Quality Act (CEQA) process.

2-2

PROJECT DESCRIPTION

The Riverside County Department of Waste Resources (RCDWR), acting as Lead Agency, has prepared and circulated a MND in order to comply with CEQA in order to provide information and solicit consultation in the approval Project. The Project is for the closure of the Mecca II landfill, located at 95250 66th Avenue, Mecca, CA 92254. The total permitted area of the landfill is 80 acres – of which only 19 acres is utilized for landfilling. The Project will consist of 2-phases:

- Phase 1
 - Construction of the final cover - which will require approximately 110,000 cubic yards of soil from on-site eastern and/or northern borrow areas;
 - Application of Processed Palm Material over the final cover to control and reduce erosion; and,
 - Construction of drainage structures to channel water down the landfill deck into low points on site or into the eastern borrow area.
- Phase 2
 - Post-closure maintenance and monitoring of the landfill's groundwater monitoring wells and a gas collection system (only to be installed if gas monitoring probes reach methane level concentrations of 5% rating or higher).
 - Following construction activities, post-closure maintenance and monitoring will continue for up to 30 years or when the site is no longer a threat to public health or the environment as approved by the regulatory authorities.

2-3

COMMENTS

Closure is the process during which a landfill or disposal site, or a portion thereof, is no longer receiving waste and is being prepared for postclosure maintenance according to an approved plan and construction schedule. For additional information and resources regarding the closure and post-closure process and requirements under Title 27, California Code of Regulation, please visit CalRecycle's webpage:

2-4

<http://www.calrecycle.ca.gov/swfacilities/Closure/Plans/default.htm>



CalRecycle is responsible for ensuring that operators of solid waste disposal facilities demonstrate adequate financial assurances for costs of closure and postclosure maintenance, known or reasonably foreseeable corrective action, and operating liability. RCDWR will need to provide demonstrations of financial responsibility to initiate the closure process; the following weblink provides additional information on requirements for financial assurances, <http://www.calrecycle.ca.gov/swfacilities/Financial/default.htm>.

2-5

Lastly, the Riverside County, Department of Environmental Health is the Local Enforcement Agency (LEA), and is responsible for providing regulatory oversight of solid waste handling activities – including permitting and inspections during current operations and future closure activities. Please contact the LEA, Jenny Gonzalez, at 760.863.7570 to discuss the regulatory requirements and procedures for the project.

2-6

CONCLUSION

CalRecycle staff thanks the Lead Agency for the opportunity to review and comment on the environmental document and hopes that this comment letter will be useful to the Lead Agency preparing the MND and in carrying out their responsibilities in the CEQA process. CalRecycle staff requests copies of any subsequent environmental documents, copies of public notices and any Notices of Determination for this proposed project.

2-7

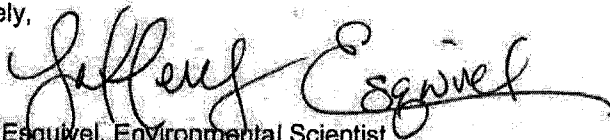
If the environmental document is adopted during a public hearing, CalRecycle staff requests 10 days advance notice of this hearing. If the document is adopted without a public hearing, CalRecycle staff requests 10 days advance notification of the date of the adoption and proposed project approval by the decision making body.

2-8

If you have any questions regarding these comments, please contact Megan Emslander at 916.341.6363 or by e-mail at Megan.Emslander@calrecycle.ca.gov.

2-9

Sincerely,



Jeffery Esquivel, Environmental Scientist
Permitting & Assistance Branch – South Unit
Waste Permitting, Compliance & Mitigation Division
CalRecycle

cc: Marin Perez, Supervisor
Permitting & Assistance Branch – South Unit

Megan Emslander, Environmental Scientist
Permitting & Assistance Branch – South Unit

Jenny Gonzalez, LEA
jgonzalez@rivco.org

SEARCHED 2200001
BY [Signature]
Date: 2/14/18

Letter 2 Department of Resources Recycling and Recovery,
(CalRecycle) January 29, 2018

- Response 2-1 Comment noted. No additional response required.
- Response 2-2 Comment noted. No additional response required.
- Response 2-3 Comment noted. No additional response required.
- Response 2-4 Comment noted. No additional response required.
- Response 2-5 Riverside County Department of Waste Resources (RCDWR) will continue to comply with all applicable requirements for the closure and post-closure maintenance of the landfill, including demonstrating adequate financial assurances.
- Response 2-6 Comment noted. No additional response required.
- Response 2-7 Comment noted. No additional response required.
- Response 2-8 The County of Riverside, as lead agency, will provide at least 10 days advanced notification of the date for the public hearing prior to any approval actions on the part of the lead agency.
- Response 2-9 Comment noted. No additional response required.



Edmund G. Brown Jr.
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Ken Alex
Director

February 8, 2018

Jose Merlan
Riverside County
14310 Frederick St
Moreno Valley, CA 92553

18 FEB 13 PM 3:44
COUNTY OF RIVERSIDE
WASTE MANAGEMENT

Subject: Mecca II Landfill Closure and Post-Closure Maintenance Project
SCH#: 2018011010

Dear Jose Merlan:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on February 7, 2018, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

3-1

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

3-2

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

3-3

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

3-4

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

Letter 3 State Clearing House, February 8, 2018

Response 3-1 Comment noted. No additional response required.

Response 3-2 Comment noted. No additional response required.

Response 3-3 Comment noted. No additional response required.

Response 3-4 Comment noted. No additional response required.

Attachment D: Notice of Determination

**COUNTY OF RIVERSIDE
DEPARTMENT WASTE RESOURCES
NOTICE OF DETERMINATION**

TO:

X Office of Planning and Research (OPR)
1400 Tenth Street
Sacramento, CA 95814

X County Clerk
County of Riverside

FROM:

Riverside County
Department of Waste Resources
14310 Frederick Street
Moreno Valley, CA 92553

For County Clerk's Use Only:

Subject: Filing of Notice of Determination in compliance with Section 21152 of the Public Resources Code

Project Title: Mecca II Landfill Closure and Post-Closure Maintenance Project (Project)

State Clearinghouse (SCH) No.: 2018011010 **Contact:** Jose Merlan **Phone:** 951-486-3200

Project Applicant/Owner & Address: Riverside County Department of Waste Resources (RCDWR)
14310 Frederick St. Moreno Valley, CA 92553

Project Location: The Project is located at 95250 66th Avenue, Mecca CA south of 66th Avenue, in the southeast corner of 66th Avenue and Garfield Street in the unincorporated community of Mecca. It is also described as a portion of Riverside County Assessor Parcel Numbers (APNs) 727-241-001, 727-242-001, 727-242-011, 727-242-012, and 727-242-018.

Project Description: The Mecca II Landfill is only open two days per year. As the landfill is nearing its disposal capacity, the RCDWR is preparing for the closure and post-closure maintenance of the facility. The proposed Project involves two phases: Phase 1 involves activities associated with the closure of the landfill – excavation and grading for the construction of the final landfill cover, placement of erosion control materials, and construction of drainage structures. Phase 2 involves the post-closure maintenance, monitoring, and enhancements of the landfill's environmental systems.

This is to advise that the Riverside County Board of Supervisors has approved the above-referenced Project on March 20, 2018 and has made the following determinations regarding that Project:

1. The Project will not have a significant effect on the environment.
2. A Mitigated Negative Declaration was prepared for this Project pursuant to the provisions of CEQA.
3. Mitigation measures were made a condition of the approval of the Project.
4. A mitigation monitoring program was adopted for this Project.
5. A statement of Overriding Considerations was not adopted for this Project.
6. Findings were made pursuant to the provisions of CEQA.

This is to certify that the Mitigated Negative Declaration and record of Project approval is available to the general public at: Riverside County Department of Waste Resources
14310 Frederick Street, Moreno Valley, CA 92553

Signature: Jose Merlan **Title:** Urban/Regional Planner III **Date:** March 20, 2018
Jose Merlan

<p>TO BE COMPLETED BY OPR Date Received for Filing and Posting at OPR:</p>

Attachment E: Mitigation Monitoring Program

**Mecca II Landfill Closure and Post-Closure
Maintenance Project
Mitigation Monitoring Program**

(Environmental Assessment No. 2017-02)



Riverside County Department of Waste Resources
14310 Frederick Street
Moreno Valley, CA 92553

February 2018

BACKGROUND

This Mitigation Monitoring Program (MMP) has been prepared to comply with Section 21081.6 of the California Environmental Quality Act (CEQA). Section 21081.6 requires that public agencies adopt a monitoring program for measures that are required to mitigate or avoid significant effects to the environment from the project.

The MMP serves three functions:

1. Assures completion of mitigation measures during project implementation.
2. Provides feedback to designated agencies and decision makers regarding the effectiveness of the mitigation measures.
3. Identifies the need for enforcement action before irreversible environmental damage occurs.

In the event it is determined that a mitigation measure is not effective or feasible, the MMP can be amended on an as-needed basis to incorporate additional or revised measures that the decision makers or agencies adopt.

FORMAT OF PROGRAM

The MMP includes the following information:

Mitigation Measure: Identifies project-specific mitigation measures described in Environmental Assessment (EA) 2017-02.

Mitigation measures are grouped under the environmental impact areas, which are represented by the following "Impact Codes":

BIO	=	Biological Resources
CR	=	Cultural Resources
N	=	Noise
T	=	Traffic and Transportation

Monitoring Timeframe: Indicates the timeframe in which the mitigation measure should be performed or completed.

Enforcement Authorities: Designates the agency/agencies responsible for overseeing and/or monitoring the implementation of the mitigation measure(s) included in the MMP. In the case of this project, oversight responsibilities, where applicable, are shared among various tribal and local agencies. As the owner and operator, the RCDWR is responsible for implementing all the identified mitigation measures in this MMP.

The following abbreviations and acronyms are used in this MMP:

AB 52	Assembly Bill 52
CEQA	California Environmental Quality Act
DPR	Department of Parks and Recreation
MBTA	Migratory Bird Treaty Act
MMP	Mitigation Monitoring Program
RCDWR	Riverside County Department of Waste Resources
RCEHD	Riverside County Environmental Health Department

MITIGATION MONITORING PROGRAM MATRIX

Impact Code	No.	Mitigation Measure	Monitoring Timeframe	Enforcement Authorities
BIO	1	<p>In order to avoid impacts to nesting birds protected by the Migratory Bird Treaty Act (MBTA) and State Fish and Wildlife Codes, removal of vegetation or any other potential nesting bird habitat should be conducted outside of an avian nesting season (February 1st through August 31st) if practical. If habitat must be cleared during the nesting season, a preconstruction nesting bird survey shall be conducted by a qualified biologist. If nesting activity is observed, appropriate avoidance measures shall be adopted to avoid any potential impacts to nesting birds.</p>	<p>Prior and During Construction Activities</p>	<p>RCDWR</p>
CR	1	<p>If subsurface cultural resources are encountered during any excavation, or if evidence of an archaeological site or other suspected historic resources are encountered, all ground disturbing activity will cease within 100 feet of the resource. A qualified archaeologist will be retained by the operator to assess the find, and to determine whether the resource requires further study. Additionally, any potentially significant cultural resource(s), discovered on site shall require notification to the seven (7) requesting Tribes under AB 52. Potentially significant cultural resources could consist of, but are not limited to, stone, bone, fossils, wood or shell artifacts or features, including structural remains, historic dumpsites, hearths and middens. Midden features are characterized by darkened soil, and could conceal material remains, including worked stone, fired clay vessels, faunal bone, hearths, storage pits, or burials and special attention should always be paid to uncharacteristic soil color changes. Any previously undiscovered resources found during construction should be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and evaluated by a qualified archaeologist retained by the County for significance under all applicable regulatory criteria.</p>	<p>During Project Construction</p>	<p>RCDWR, seven (7) requesting Tribes under AB 52</p>

Impact Code	No.	Mitigation Measure	Monitoring Timeframe	Enforcement Authorities
CR	2	No further grading will occur in the area of the discovery until the County, along with the applicable Tribe(s), approves measures to protect the resources. Any archaeological artifacts recovered as a result of mitigation will either be donated to a qualified scientific institution approved by the County where they would be afforded long-term preservation to allow future scientific study or if the resource is determined to be a tribal cultural resource, then the final disposition of the resource shall require approval of applicable Tribes(s).	During Project Construction	RCDWR, seven (7) requesting Tribes under AB 52
CR	3	<p>In the event of an accidental discovery or recognition of any human remains, PRC Section 5097.98 must be followed. In this instance, once Project-related earthmoving begins and if there is accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps shall be taken:</p> <ol style="list-style-type: none"> 1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, then the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" of the deceased Native American. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98, or; 2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendant or on the property in a location not subject to further subsurface disturbance: 	During Project Construction	RCDWR, seven (7) requesting Tribes under AB 52

Impact Code	No.	Mitigation Measure	Monitoring Timeframe	Enforcement Authorities
		<p>The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission; the descendant identified fails to make a recommendation; or the landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the NAHC fails to provide measures acceptable to the landowner.</p>		
N	1	<p>The Project construction manager, in accordance with Ordinance No. 847, shall limit construction activities to between the hours of 6:00AM and 6:00PM, during the months of June through September; and between the hours of 7:00AM to 6:00PM during the months of October through May.</p>	<p>During Project Construction</p>	<p>RCDWR</p>
N	2	<p>All equipment, fixed or mobile, used on site during Project activities shall be equipped with properly operating and maintained mufflers to the satisfaction of the Riverside County Environmental Health Department.</p>	<p>During Project Construction</p>	<p>RCDWR and RCEHD</p>
N	3	<p>The Project shall mandate that the construction contractor prohibit the use of music or sound amplification on the Project site during construction.</p>	<p>During Project Construction</p>	<p>RCDWR</p>
N	4	<p>Equipment operators and other facility personnel subject to excessive noise levels will be provided with hearing protection (i.e., ear plugs, etc.). Equipment operators are required to wear ear protection in open cabs.</p>	<p>During Project Construction</p>	<p>RCDWR</p>
N	5	<p>Contractor shall comply with RCDWR's Idling Policy, which states that no diesel on-road vehicle, equipment, or engine that is used for any Department operation in an off-road capacity may idle for more than five (5) consecutive minutes.</p>	<p>During Project Construction</p>	<p>RCDWR</p>

Impact Code	No.	Mitigation Measure	Monitoring Timeframe	Enforcement Authorities
T	1	Where necessary, flagmen shall be provided by the contractor at critical locations to direct/separate general traffic and truck traffic to ensure safety.	During Project Construction	RCDWR
T	2	At the end of the work day, the contractor shall inspect the residential haul route for debris or litters fall-out from the hauling trucks. All dropped debris and litters shall be picked up and removed from the neighborhood.	During Project Construction	RCDWR
T	3	When warranted, the contractor shall clean up the dirt track-out created by the Project's vehicles on 66 th Ave. at the end of the work day.	During Project Construction	RCDWR

***Attachment B: NOI, MND and Final
EA 2017-02***



Hans W. Kernkamp, General Manager-Chief Engineer

**Notice of Intent to Adopt a Mitigated Negative Declaration For
Mecca II Landfill Closure and Post-Closure Maintenance Project
Environmental Assessment No. 2017-02**

DATE: January 9, 2018
TO: Agencies and All Interested Persons
PROJECT NAME: Mecca II Landfill Closure and Post-Closure Maintenance Project
REVIEW PERIOD: January 9, 2018 to February 7, 2018
PROJECT LOCATION: The project is located at 95250 66th Avenue, Mecca CA, south of 66th Avenue between the Coachella Valley Canal and Garfield Street, in the unincorporated community of Mecca.

The Riverside County Department of Waste Resources (RCDWR), on behalf of Riverside County as Lead Agency, has determined that the proposed Mecca II Landfill Closure and Post-Closure Maintenance Project (Project) will not have a significant effect on the environment with the implementation of proposed mitigation measures and recommends the adoption of a Mitigated Negative Declaration (MND) for Environmental Assessment (EA) No. 2017-02.


The Mecca II Landfill is open only two days per year. As the landfill is nearing its disposal capacity, the RCDWR is preparing for the closure and post-closure maintenance of the facility. The proposed Project involves two phases: Phase 1 involves activities associated with the closure of the landfill- excavation and grading for the construction of the final landfill cover, placement of erosion control materials, and construction of drainage structures. Phase 2 involves the post-closure maintenance, monitoring, and enhancements of the landfill's environmental systems.

MND/EA No. 2017-02 is available at the following locations: RCDWR website www.rcwaste.org or at 14310 Frederick Street in Moreno Valley, at the Riverside County Clerk offices at 2724 Gateway Drive in Riverside and at 38-686 El Cerrito Road in Palm Desert, from 8:00 AM to 4:30 PM, Monday through Friday. The documents have also been sent to the Mecca Branch Library, 91-260 Ave 66 Mecca, CA, 92254.

Any comments on the proposed Project, the determination to adopt a MND, or requests for more information should be directed to: Riverside County Department of Waste Resources, Attention: Jose Merlan, Urban/Regional Planner III, 14310 Frederick Street, Moreno Valley, CA 92553. Telephone (951) 486-3200/Fax (951) 486-3205

Written comments must be received at the above address by 5:00 p.m. on February 7, 2018. Any written comments received will be forwarded to the Riverside County Board of Supervisors and will be considered, along with the EA and any oral testimony, before any action is taken on the Project. The Board of Supervisors may consider this Project on or after March 20, 2018. Any decision made by this body will be mailed to anyone requesting such notification.

RIVERSIDE COUNTY DEPARTMENT OF WASTE RESOURCES
Hans Kernkamp, General Manager – Chief Engineer


Jose Merlan, Urban/Regional Planner III

FILED / POSTED

County of Riverside
Peter Aldana
Assessor-County Clerk-Recorder

E-201800020
01/09/2018 11:53 AM Fee: \$ 0.00
Page 1 of 1

Removed:  Deputy

MND Form



Hans W. Kernkamp, General Manager-Chief Engineer

MITIGATED NEGATIVE DECLARATION

Project Title: Mecca II Landfill Closure and Post-Closure Maintenance Project (Project)

Based on the findings in Environmental Assessment (EA) No. 2017-02, it has been determined that the proposed Project, subject to the proposed mitigation measures, will not have a significant effect upon the environment.


PROJECT DESCRIPTION, LOCATION, AND MITIGATION MEASURES REQUIRED TO AVOID POTENTIALLY SIGNIFICANT EFFECTS. (see EA No. 2017-02)

COMPLETED/REVIEWED BY:

By: Jose Merlan Title: Project Planner Date: March 1, 2018

Applicant/Project Sponsor: Riverside County Department of Waste Resources (RCDWR)

ADOPTED BY: Riverside County Board of Supervisors

Person Verifying Adoption:  Date: 3/20/18
Ryan Ross, Principal Planner

The Mitigated Negative Declaration and EA No. 2017-02, along with documents referenced in the Environmental Assessment, may be examined at:

Riverside County Department of Waste Resources 14310 Frederick St. Moreno Valley, CA 92553

For additional information, please contact Jose Merlan at (951) 486-3200.

Final EA 2017-02

Environmental Assessment No. 2017-02
for the
Mecca II Landfill Closure and Post-Closure
Maintenance Project



Final

March 2018

Riverside County Department of Waste Resources

14310 Frederick Street

Moreno Valley, CA 92553

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List of Figures

Figure 1 Regional Map
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Figure 4 Project Area

Acronyms and Abbreviations

BMP	Best Management Practices
CAA	Clean Air Act
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CH ₄	Methane
CIWMP	California Integrated Waste Management Plan
CO	Carbon Oxide
CO ₂	Carbon Dioxide
GHG	Greenhouse gas
ICAPCD	Imperial County Air Pollution Control District
IS	Initial Study
LEA	Local Enforcement Agency
LFG	Landfill Gas
MBTA	Migratory Bird Treaty Act
MND	Mitigated Negative Declaration
MSW	Municipal Solid Waste
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NMOC	Non-methane organic compound
NO _x	Nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
O ₃	Ozone
PLA	Permitted landfill area
PM-2.5	Fine particulate matter
PM-10	Respirable particulate matter
PPM	Processed Palm Material
RCDWR	Riverside County Department of Waste Resources
RCIP	Riverside County Integrative Project
RCRA	Resource Conservation and Recovery Act
ROG	Reactive Organic Gases
RWQCB-CRB	Regional (CA) Water Quality Control Board-Colorado River Basin
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District

SMARA	Surface Mining and Reclamation Act
SOX	Sulfur Oxide
SR	State Route
SSAB	Salton Sea Air Basin
SSC	Species of Concern
SWFP	Solid Waste Facility Permit
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminants
TIS	Traffic impact Study
TPD	Tons per day
USFWS	United States Fish and Wildlife Service
VOC	Volatile Organic Compounds

Chapter 1

Introduction

Purpose and Use

The purpose of Environmental Assessment (EA) No. 2017-02 is to describe the proposed Project, its potential environmental impacts, and feasible mitigation measures to reduce potential adverse environmental effects caused by the proposed Project to below a level of significance. This EA addresses the closure and post-closure maintenance of the Mecca II Landfill, an existing municipal solid waste (MSW) disposal facility. The landfill is located in the southeastern portion of the Coachella Valley, approximately 4 miles north of the Salton Sea. More specifically, the landfill is located at the southeast corner of 66th Avenue and Garfield Street, which is approximately 3.5 miles east of the unincorporated community of Mecca, California. Figure 1 Regional Map, shows the regional location of the Project.

The County of Riverside, as Lead Agency, and other responsible and regulatory agencies with approval authority over the Project, will use EA No. 2017-02 to make informed decisions concerning the Project's intended use and operation.

Compliance with CEQA

EA No. 2017-02 has been prepared in accordance with the California Environmental Quality Act ("CEQA") Public Resources Code Section 21000 et seq. and the implementing Guidelines (Section 15000 et seq.) and will be used to satisfy the requirements of the State CEQA Guidelines Section 15063, "Initial Study."

Based on the information contained within EA No. 2017-02, the Riverside County Department of Waste Resources (RCDWR) on behalf of the County of Riverside as Lead Agency, has determined that, with implementation of the mitigation measures described herein, the Project will not have a significant effect on the environment and recommends that a Mitigated Negative Declaration (MND) be adopted.

EA No. 2017-02 is subject to a 30-day public review period by responsible and trustee agencies and interested public. All responses and comments received during this time period will be presented to the County of Riverside Board of Supervisors at the time this body considers the Project.

Scope of Initial Study

This EA evaluates the following potential environmental topics:

<input checked="" type="checkbox"/> Aesthetics	<input checked="" type="checkbox"/> Greenhouse Gas	<input checked="" type="checkbox"/> Population/Housing
<input checked="" type="checkbox"/> Agriculture and Forestry Resources	<input checked="" type="checkbox"/> Hazards and Hazardous Materials	<input checked="" type="checkbox"/> Public Services
<input checked="" type="checkbox"/> Air Quality	<input checked="" type="checkbox"/> Hydrology/Water Quality	<input checked="" type="checkbox"/> Recreation
<input checked="" type="checkbox"/> Biological Resources	<input checked="" type="checkbox"/> Land Use/Planning	<input checked="" type="checkbox"/> Transportation/Traffic
<input checked="" type="checkbox"/> Cultural /Paleontological Resources	<input checked="" type="checkbox"/> Mineral Resources	<input checked="" type="checkbox"/> Tribal Cultural Resources
<input checked="" type="checkbox"/> Utility/Service Systems	<input checked="" type="checkbox"/> Geology/Soils	<input checked="" type="checkbox"/> Noise

Impact Terminology

The following terminology is used in the EA to describe the levels of significance of impacts that could result from the proposed Mecca II Landfill Closure and Post-Closure Project:

- The Project is considered to have no impact if the analysis concludes that the Project would not affect a particular resource topic.
- An impact is considered less than significant if the analysis concludes that either the Project would cause no substantial adverse change to the environment or that impacts would not require mitigation measures.
- An impact is considered less than significant after mitigation if the analysis concludes that the proposed Project would cause substantial adverse change to the environment that would require the inclusion of appropriate and feasible mitigation measures to reduce the impact to a less-than-significant level.
- If the application of mitigation measures does not reduce a significant impact to a less-than-significant level, the impact would be considered potentially unavoidable significant under CEQA.

Organization of Initial Study

The content and format of this document, as described below, is designed to meet the requirements of CEQA.

- Chapter 1 — **Introduction:** identifies the purpose, scope, and terminology of the document.
- Chapter 2 — **Project Description:** identifies the location, background, and planning objectives of the project; describes the Project in detail, and identifies the permits and approvals required for the Project.
- Chapter 3 — **Environmental Issues Assessment:** presents the checklist responses for each resource. This section includes a brief setting description for each resource and identifies the Project's impact on those resources and any mitigation measures deemed necessary to reduce the impacts to less than significant.

Chapter 2

Project Description

Project Location

The facility is located in the unincorporated area of Riverside County. The site address is 95250 66th Avenue, Mecca, CA 92254 as shown on Figure 2, Site Map. The property encompasses approximately 80 acres which includes public right-of-way for 66th Avenue and easements granted to Coachella Valley Water District for the Coachella Valley Canal and irrigation pipeline serving farmland south of the site. A total of 19 acres of the property is currently used as landfill disposal area. The landfill property encompasses approximately 80 acres over five parcels. It is located in a portion of Section 12 of Township 7 South, Range 9 East of the San Bernardino Base and Meridian and can also be described as Riverside County Assessor's Parcel Numbers (APN's) 727-241-001, 727-241-018, 727-242-001, 727-242-011 and 727-242-012.

The landfill site is accessed from Hwy 111, eastbound via 66th Avenue at the intersection of 66th Avenue and Garfield St. (refer to Figure 3, Vicinity Map).

Zoning and Land Use

The majority of the Mecca II Landfill property (~74 acres APNs 727-241-001, 727-241-018, 727-242-001 and 727-242-012) are zoned W-2 (Controlled Development Areas), with APN 727-242-011 (~3 acres), zoned W-1 (Watercourse Watershed & Conservation Areas). Waste disposal activities do not occur within the property zoned W-1, and per *Riverside County Land Use and Zoning Ordinance No. 348*, Section 15.1.D.25, the W-2 zoning classification identifies "Disposal Service Operations" as being conditionally permitted within this zone. In addition, since the Department is a public agency and the Project proponent, the proposed Project is deemed a "public Project" under the provisions of Section 18.2 (a)(B)(1) of Ordinance No. 348, which states, in part, that "no federal, state, county or city governmental project shall be subject to the provisions of this ordinance." The on-site land use is for waste disposal facilities.

According to the Riverside County land use zoning map, the primary zoning designation surrounding the landfill property is W-2, Controlled Development areas. Other adjoining parcels are zoned as follows: A-1-20 (Light Agriculture with a 20-acre minimum lot size), A-2-20 (Heavy Agriculture with a 20-acre minimum lot size), W-2 (Controlled Development areas), W-1, (Watercourse Watershed & Conservation Areas), and R-R (Rural Residential). There are no occupied residences within 1,000 feet of the site. The nearest structures to the landfill are farm buildings located approximately 500 feet southeast of the landfill. The nearest occupied residence is approximately .45 mile north-west of the landfill.

Surrounding land-use is primarily agricultural and vacant (undifferentiated), with a few areas of rural residential and water conveyance facilities. Portions of the Torres Martinez Indian Reservation occupy parcels of land near the Mecca II landfill.

According to the Riverside County Land Use Map, the land use designation for the landfill property is PF (Public Facilities). The Mecca II Landfill property is surrounded by open vacant land to the north and northeast, (OS-RUR – Open Space Rural), and the Coachella Valley Canal on the northeast (OS-W–Open Space Water) and farmland to the south and southeast (AG – Agriculture).

Project Background

The Mecca II Landfill is a Class III sanitary landfill, owned and operated by the RCDWR. Its service area encompasses the unincorporated communities of Mecca, Oasis, Thermal, Valerie, and North Shore, along with other areas which lie in the lower Coachella Valley in Riverside County. The landfill is currently operating under Solid Waste Facility Permit (SWFP) No. No. 33-AA-0071, issued in 2015 by the Local Enforcement Agency (LEA) for Riverside County after approval by the California Department of Resources Recycling and Recovery (CalRecycle). The SWFP allows landfilling to take place in a 19-acre area of the site, of the total 80 acres which includes public right-of-way for 66th Avenue and easements for the Coachella Valley Canal. It also allows the landfill to receive a daily maximum of 400 tons of MSW but prohibits scavenging, open burning, and disposal of hazardous waste materials, infectious waste, liquid waste, miscellaneous agricultural wastes, dead animals, non-hazardous contaminated soil, and septic tank and grease trap waste. The landfill is permitted to operate Wednesdays and Saturdays from 8:00 am to 4:30 pm. However, the Landfill is only open twice a year, on the second Saturday of April and October.

Waste disposal at this landfill has been the responsibility of the County of Riverside since the site was open in 1982. Landfill disposal operations at the facility have significantly decreased over the last 10 years, with the landfill going from being open twice weekly to only being open twice yearly. As the landfill is nearing its disposal capacity, the RCDWR is preparing for the closure and post-closure maintenance of the Mecca II facility. The Oasis landfill, also owned and operated by the RCDWR, is located approximately 15 miles from the Mecca II Facility and has adequate disposal capacity to accept the approximate two (2) tons of waste received yearly at the Mecca II Facility.

Proposed Project

The RCDWR proposes the closure of the Mecca II landfill in compliance with Title 27 of the CCR. The closure and post-closure of the Mecca II landfill will provide long-term erosion control and accommodate settlement and subsidence so that the cover's integrity is maintained. The subsequent monitoring of air and water quality and post-closure maintenance of the landfill will provide for long-term protection of public health and safety. Administrative aspects of the Project include the preparation of the Closure/Post-Closure Plan (prepared by RCDWR with LEA/CalRecycle review/approval), as well as development of construction/bid documents, and various permitting efforts associated with Project construction. The administrative aspects of the Project will facilitate the construction of the Project, as evaluated in this EA.

Construction of the Project involves two (2) phases. Phase 1 involves activities associated with the construction of the final cover, which will require approximately 110,000 cubic yards of soil from onsite eastern and/or northern borrow areas; application of Processed Palm Material (PPM) over the final cover to control and reduce erosion; and the construction of drainage structures to channel water down the landfill deck into low points on site or into the eastern borrow area. Phase 2 involves the post-closure maintenance and monitoring of the landfill's environmental systems. Groundwater monitoring wells already exist onsite and a gas collection system would only be installed if gas monitoring probes reach methane level concentrations of 5% rating or higher.

The second phase of post-closure maintenance and environmental monitoring will begin after closure construction is completed and will continue for up to 30 years or when the site is no longer a threat to public health or the environment as approved by the regulatory authorities.

Particular distinction needs to be noted between project activity schedule and project duration. It is estimated that the actual project activities (project activity schedule), given ideal working situations with no work stoppage, would last approximately 1.5 months. However, due to unforeseen circumstances (weather, equipment failure, technical issues, material availability and other unforeseen contingencies) the project may last up to two (2) to three (3) months.

Project Construction Characteristics

Phase 1 of the project involves the following seven (7) Work Items:

1. Mobilization

Mobilization will involve the delivery and removal of heavy equipment to the site.

2. Removal of landfill structures (gate fee booth)

Removal of the landfill structures will include removal of the existing gate fee located in the main entrance of the landfill. This would involve demolition and disposal of the waste material or would involve the careful removal and transport of the gate fee booth to another location, depending on the salvageable quality of the fee booth and the need for a new fee booth elsewhere.

3. Installation of the final cover

The alternative final cover (final cover) installation over the entire landfill surface would consist of applying two feet of cover (soil from borrow areas) over the existing one foot of daily cover. Then approximately 6in – 8in of an erosion-resistant layer (PPM) will be placed on top of the final cover. This work would consist of excavating soil from the eastern and/or northern borrow areas, (see Figure 4, Project Area) and transporting the soil to areas of the landfill for final application.

4. Erosion Control and Base Roads

Following final cover installation to the entire landfill or where final cover material has been installed in certain areas, the landfill slopes will be covered with PPM and/or green waste material¹ in order to reduce and, where possible, prevent erosion from occurring. With the arid desert climate, the use of green waste, specifically PPM, has served as an excellent binder protecting the topsoil surface from erosion. Base roads already exist and will only be modified slightly to change the alignment, if needed, to conform to the overall design of the final closure, post-closure plan.

5. Construction of Drainage Improvements

Drainage improvements would consist of earthen berms and down drains on the top deck of the landfill and along bench roads to divert water flow toward the eastern borrow pit area or to western low points on the landfill. Site surface drainage control facilities are adequate to contain

¹ PPM and other green waste material are used interchangeably in the document, because PPM is based on availability, other green waste may be used for erosion control.

on-site runoff flows during a 100-year 24-hour frequency storm. Drains, starting at the low point of the top deck, down to the base of the landfill will also be constructed.

6. Site Security

The final construction portion of Phase 1 would consist of reinstallation of the security fence near the disposal area.

7. Demobilization

Demobilization will involve the removal of heavy equipment at the site.

Phase 2 of the Project involves the following two Work Items:

1. Vertical Well Drilling and Refuse Excavation

Only after reaching 5% concentration of landfill gas (LFG) will the construction of a LFG collection and LFG control system installation be necessary. This work would consist of the excavation of portions of the final cover (3 to 4 feet of soil), and extraction and temporary staging of MSW with a Backhoe and boring of approximately twelve (12) vertical wells. The extracted solid waste would be placed in roll-off bins to be disposed of either directly to an open landfill or transferred to a transfer station.

2. Piping Installation and Construction of Concrete Pad and Cover

Following drilling, installation of the piping network and construction of a cement pad and installation of a chain link fence around the blower, condensate collection tank and activated carbon absorption system (ACAS), will occur.

3. Post-closure Maintenance Activities

Maintenance activities would involve gas and ground water monitoring and sampling, engineering inspections, final cover and drainage systems maintenance, among other minor repairs, alterations, or installations (fencing, signage, etc.).

Project Objectives

The specific objectives of the Project are summarized as follows:

- 1) Comply with the landfill closure requirements of CCR Title 27 and the Resource Conservation and Recovery Act (RCRA)
- 2) Design a landfill cover that provides: 1) long-term prevention of the storm water percolation and excessive storm runoff through the landfill cover; 2) promote lateral drainage to reduce water ponding; and 3) apply erosion control material(s), e.g., PPM or other green waste material to control erosion or abrasion of the cover.
- 3) Provide for long-term public health and safety through effective monitoring of air and water quality and post-closure maintenance of the landfill.

Permits and Approvals

The proposed Project may be required to obtain/and or update the following permits and/or approvals from the responsible and/or trustee agencies identified.

- Mitigated Negative Declaration (MND) for EA No. 2017-02 (*County of Riverside*)
- JTD No. 11- Final Closure and Post-Closure Maintenance Plan (*LEA/CalRecycle/Colorado River Regional Water Quality Board*)
- Authorization to Bid Plans and Specifications (*County of Riverside*)
- Approval of Construction Contract (*County of Riverside*)
- Waste Discharge Requirements update (*Colorado River Regional Water Quality Control Board*)
- National Pollutant Discharge Elimination System Permit (*State Water Resources Control Board*)
- Rule 403 Notification (*Salton Sea Air Basin, South Coast Air Quality Management District*)
- Rule 1150 Landfill Excavation Permit (*South Coast Air Quality Management District*)
- Permit to Construct and Operate (*South Coast Air Quality Management District*) if applicable

Chapter 3

Environmental Checklist

- | | | |
|----------|--|--|
| 1 | Project Title: | Mecca II Landfill Closure and Post-Closure Maintenance Project |
| 2 | Lead Agency Name: | County of Riverside |
| 3 | Contact Person and Phone Number: | Jose Merlan, Urban/Regional Planner III
(951) 486-3200 |
| 4 | Project Location: | Mecca II Landfill, 95250 66th Avenue, Mecca, CA 92254 |
| 5 | Project Sponsor’s Name and Address: | Riverside County Department of Waste Resources
14310 Frederick Street
Moreno Valley, CA 92553 |

Environmental Factors Potentially Affected

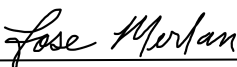
The environmental factors checked below would potentially be affected by this Project (i.e., the Project would involve at least one impact that is a “Significant Unavoidable Impact”), as indicated by the checklist on the following pages.

- | | | |
|---|--|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural/Paleontological | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/Water |
| <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Tribal Cultural Resources |

Determination

On the basis of this initial evaluation:

- I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed Project MAY have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed Project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect: 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be address.
- I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to the earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.



Signature
Jose Merlan, Project Planner
Riverside County Department of Waste Resources

2/21/17

Date

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
4. “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analyses,” as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration, pursuant to State CEQA Guidelines section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - (a) Earlier Analysis Used. Identify and state where they are available for review.
 - (b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - (c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist, references to information sources for potential impacts (e.g., general plans, zoning ordinances). References to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - (a) The significance criteria or threshold, if any, used to evaluate each question; and
 - (b) The mitigation measure identified, if any, to reduce the impact to less than significance.

1. Aesthetics

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Source: California Department of Transportation Scenic Highway Program and Mapping System

1a. Have a substantial adverse effect on a scenic vista?

The Mecca II Landfill is located in the unincorporated community of Mecca. The surrounding visual characteristics are open desert terrain to the north and northeast of the site, consisting of Sonoran Desert Scrub vegetation (creosote bush habitat, sparse Ironwood trees and sandy soil). Farmland is located to the north, south, west, northwest and southwest of the landfill. The Eastern Coachella Valley Area Plan lists State Route 111, from Bombay Beach on the Salton Sea to State Route 195 near Mecca, as a State-eligible Scenic Highway, providing views of the Salton Sea and surrounding mountainous wilderness.

The implementation of the proposed Project, (closure of the landfill) would not affect scenic views from State Route 111. The landfill currently exists and implementation of the Project would not increase the size, scope, or scale of the landfill. PPM for erosion control would be applied on the surface of the landfill and would not affect scenic vistas. Base roads are already in place and would only be realigned and drainage structures would be installed at grade as to not impede scenic vistas from any direction. As such, landfill closure activities would have little to no impact on the scenic quality of the surrounding area.

FINDING: *Less Than Significant Impact*

1b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The Project site is not located on or near a state-designated scenic highway. While the Project site is 2.3 miles south of State Route 111, according to the California Department of Transportation Scenic Highway Program and Mapping System, State Route 111 is identified as an eligible State Scenic Highway, but not officially designated. There are no rock outcroppings, large native trees, or historic buildings on the Project site that would constitute a scenic resource. Furthermore, the landfill does not contain natural features or landforms, and as such, is not considered a scenic resource. Thus, since scenic resources are not present, impacts to such resources will not occur.

FINDING: No Impact Is Identified

1c. Substantially degrade the existing visual character or quality of the site and its surroundings?

The existing character of the Project site is mostly open desert terrain to the north and northeast of the site, and farmland to the south and southeast of the landfill.

Moreover, native vegetation, consisting of creosote bush and ironwood trees can be seen sparsely in the surrounding area. There are no unique or scenic visual resources on the Project site or in the vicinity. Furthermore, as previously stated, the landfill facility is not a natural feature or landform, and thus the Mecca II Landfill is not considered a scenic visual resource.

As discussed in the analysis above, question (a), the proposed closure and post closure maintenance of the landfill would not change the visual character or quality of the site and its surroundings. The proposed Project would not obstruct views of the surrounding areas; as such, landfill closure activities would have little to no impact on the scenic quality and visual character of the surrounding area.

FINDING: Less Than Significant Impact

1d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No new light features would be introduced nor would reflective mirrors or glass be part of the closure or post-closure construction design. Work will be conducted, typically, between the hours of 7:00AM and 5:00PM, thus no nighttime lighting would be needed for construction activities. No new source of substantial light or glare would be created that would adversely affect day or nighttime views in the area.

FINDING: No Impact Is Identified

2. Agriculture and Forestry Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code (PRC) §12220(g)), timberland (as defined by PRC §4526), or timberland zoned Timberland Production (as defined by Government Code §51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Source: California Department of Conservation, Farmland Mapping and Monitoring Program.

2a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The Project site is located adjacent to Prime Farmland to the south of the landfill and Unique Farmland to the west, according to California Department of Conservation,

Farmland Mapping and Monitoring Program. However, the Project site is an active landfill, which under the scope of the proposed Project would undergo full closure, and as such, will not cause, directly or indirectly, farmland to be converted to non-agricultural use.

FINDING: No Impact Is Identified

2b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

As explained in section (2a) above, the Project site is surrounded by Prime Farmland to the south of the landfill and Unique Farmland to the west. The Project site is zoned W-2 (Controlled Development) and does not propose any changes to uses allowed under its current zoning. As such, the Project would not conflict with existing zoning for agricultural use or a Williamson Act contract.

FINDING: No Impact Is Identified

2c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code (PRC) §12220(g)), timberland (as defined by PRC §4526), or timberland zoned Timberland Production (as defined by Government Code §51104(g))?

As mentioned in question (2b), the Project area is zoned W-2 for the greater portion of the landfill site, with the exception of APN 727-242-011, located on the northeastern portion of the landfill property which is zoned W-1 (Watercourse Watershed & Conservation Areas). W-1 zone permitted uses include agriculture, apiaries, grazing of farm stock, golf courses without buildings, and aquaculture. W-2 zone permitted uses are disposal service operations, light agriculture, aviaries, apiaries, grazing of farm animals and other uses similar uses.

Neither the Project site nor the Project vicinity is zoned for harvesting timber, publicly or privately, as referenced in Government Code section 51104(e)(f)(g). Therefore, the Project will not conflict with any timberland zoning or cause the rezoning of forest land.

FINDING: No Impact Is Identified

2d. Result in the loss of forest land or conversion of forest land to non-forest use?

The Mecca II Landfill is surrounded by open desert terrain to the north and northeast of the site, and farmland to the south and southeast of the landfill. Forest land does not exist in or around the Project site. The Project will not result in the loss or conversion of forest land.

FINDING: No Impact Is Identified

2e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

The Project site has been in operation since 1982, and has been surrounded by farmland without any known impacts that would have caused conversion of Farmland to non-agricultural uses. The change in the environment from the open landfill to a closed landfill is notable, in that, an open landfill generates traffic, noise, potential odors etc. as opposed to a closed landfill, which would only generate the occasional maintenance technician to drive out to the site to conduct monitoring, inspections and repairs, etc.

Thus, the proposed Project would not involve changes in the existing environment as to, by location or by nature, convert Farmland to non-agricultural use. Additionally, the proposed Project would not interfere with surrounding land uses.

FINDING: No Impact Is Identified

3. Air Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a cumulative considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Source: Kunzman Associates Inc. (2017). Air Quality and Global Climate Change Impact Analysis. Prepared September 29, 2017; 2016 Air Quality Management Plan (AQMP)

An Air Quality Analysis and Global Climate Change Impact Analysis (Report) was prepared by Kunzman Associates Inc. The Report analyzed construction related criteria pollutants, and other pollutants of concern, such as toxic air contaminants (TACs), and diesel particulate matter (DPM) associated with the worst case scenario for daily emissions identified within the estimated 46 day construction period (36 days for Phase 1 and 10 days for Phase 2). As discussed in the Project Description (Chapter 2 of this EA) the project duration (2 to 3 months/40 to 60 working days) may be greater than the construction period assessed in the Report as it accounts for unforeseen project setbacks such as availability of material, equipment failure, technical issues, etc.; however, the Report evaluated worst case project emissions on a daily level, and any additional work days (in excess of what was evaluated in the Report), if needed, would not result in additional equipment or intensity of use that would impact daily emission rates beyond what was already modeled in the Report.

The Project will result in a net increase in short-term criteria air emissions typical of a small construction project; however, impacts resulting from the modest increase are less than significant, as analyzed and assessed under 3a-3e.

The following South Coast Air Quality Management District (SCAQMD) criteria emissions thresholds (in lbs/day) are used to evaluate the significance of the Project's short-term regional air quality impacts:

Carbon Monoxide (CO)	550 lbs/day
Reactive Organic Gases (ROG)	75 lbs/day
Nitrogen Oxides (NOx)	100 lbs/day
Sulfur Oxides (SOx)	150 lbs/day
Fine Particulate Matter (PM-10)	150 lbs/day
Fine Particulate Matter (PM-2.5)	55 lbs/day

3a. Conflict with or obstruct implementation of the applicable air quality plan?

The proposed Project is located in the Salton Sea Air Basin (SSAB). The SSAB covers all of Imperial County and the central portion of Riverside County, including the unincorporated community of Mecca. The SSAB covers two jurisdictional boundaries; the Riverside County portion of the SSAB which is within the South Coast Air Quality Management District, and the Imperial County portion of the SSAB which is within the jurisdictional boundaries of the Imperial County Air Pollution Control District (ICAPCD).

The SCAQMD has prepared the 2016 Air Quality Management Plan (AQMP) for use as a guiding document to meet federal Clean Air Act (CAA) requirements for areas not attaining the national ambient air quality standard (NAAQS).

Generally, the purpose of the AQMP is to provide policies and control measures that reduce emissions to attain federal ambient air quality standards by their applicable deadlines. Specifically, the purpose of the 2016 AQMP (most currently adopted version) is to set forth a comprehensive and integrated program that will lead the South Coast Air Quality Basin (Basin), into attainment with the federal 8-hour ozone NAAQS established in 2008 (2008 8-hour Ozone), the annual PM2.5 NAAQS established in 2012 (2012 annual PM2.5), and the 24-hour PM2.5 NAAQS established 2006 (2006 24-hour PM2.5); and the Coachella Valley area of the Salton Sea Air Basin, where the Project is located, into attainment with ozone (O3) and suspended particulates (PM10).

There are two distinct criteria used in determining consistency with the AQMP:

- A. The first criterion requires an evaluation of whether Project-related emissions would increase the frequency or severity of violations of existing air quality standards, or contribute to new violations, or otherwise delay the timely attainment of the air quality standards or the interim emissions reductions specified in the AQMP.

Based on the air quality modeling analysis prepared by Kunzman Associates Inc., short-term construction impacts not will exceed SCAQMD regional and local thresholds of

significance. Furthermore the Project is a landfill closure and post-closure maintenance project and does not contain any operational emissions. The Project is not anticipated to contribute to the exceedance of any air pollutant concentration standards, increase the frequency or severity of violation of existing air quality standards as shown in Table A-1, and is found to be consistent with the AQMP for the first criterion.

B. The second criterion requires an evaluation as to whether a project is consistent with the approved AQMP. The proposed Project would be consistent with the 2016 AQMP if it does not exceed the growth assumptions in the 2016 AQMP. The growth assumptions in the 2016 AQMP are based on regional growth projections, state housing needs allocations, and vehicle miles traveled data from Southern California Association of Governments (SCAG), which in turn, is informed by County and City General Plan growth assumptions.

In considering consistency with SCAG Conformity Review Procedures for growth management, the first question is whether the proposed Project is growth inducing. Second, if a project is growth inducing, it will typically trigger development of the kind that would serve the needs of population growth, e.g., housing, transportation, public facilities etc. Because emissions sources (mobile and stationary) can increase in proportion to population, it can offset the potential air pollution reduction gains made in the past decades. Projects that are considered growth inducing and that exceed the baseline growth for the region as projected in the 2016 AQMP would not be consistent with the AQMP. The proposed Project is the closure of the Mecca II landfill and is not a growth inducing project that would increase population, necessitate the addition of new housing, or require the need for road expansions or public transportation infrastructure project improvements.

Because the proposed Project is not anticipated to contribute to the exceedance of an air pollutant concentration standard and is not a growth-inducing project, that is, it will not generate growth that will exceed the baseline growth for the region, the Project would be consistent with the growth assumptions of the 2016 AQMP. Furthermore the proposed Project would comply with all applicable rules and regulations, and would not conflict or obstruct implementation of the AQMP.

FINDING: No Impact is identified

3b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

A project would be in violation of an air quality standard if the air pollution emissions generated by the proposed Project exceeds either the Federal and/or the State Ambient Air Quality Standards, or the standards established, in this particular case, by the SCAQMD. The analysis that follows evaluates short term construction related emissions from mobile sources both on-road and off-road for closure and post-closure part of the Project.

There is no long term ongoing/operational emissions associated with the Project, since the Project is, in effect, a closure project, which would cease active landfill operations. Short-term emissions consist of fugitive dust and other particulate matter, as well as exhaust

emissions generated by construction-related vehicles (dozers, graders, dump trucks, water trucks etc.). This analysis evaluates the regional air quality impacts from; 1) short-term construction emissions for criteria pollutants; carbon monoxide (CO), volatile organic compounds (VOC), (reactive organic gases (ROG) are used interchangeably for VOC in this analysis), oxides of nitrogen (NOx) and sulfur oxide (SOx); and 2) construction generated fugitive dust, particulate matter, less than 2.5 microns (PM2.5) and particulate matter, less than 10 microns (PM10).

Regional Air Quality Impact Analysis:

1. Construction Emissions (Short Term)

Construction activities associated with the proposed Project would have the potential to generate air emissions, toxic air contaminants, and odor impacts.

The closure activities are proposed to be completed in two phases. Phase 1 is the final closure of the landfill, while Phase 2 consists of the post-closure environmental monitoring and other maintenance activities.

Phase 1 construction activities would include removal of landfill structures (gate fee booth, and parts of the security fencing), installation of the final cover, application of PPM over the final cover for erosion control, and the construction of drainage improvements. Approximately, 110,000 cubic yards of soil is anticipated to be required from on-site borrow areas and then used to cover the entire landfill area with a 2-foot thick final cover layer.² Approximately fifty (50) loads of erosion control material will to be delivered from the Coachella Valley Compost facility³ (approximately 40 miles roundtrip) at a rate of approximately two truck trips per day, per truck for a total of twelve (12) days.

Phase 2 construction activities would only occur in the event landfill gas reaches five percent concentration or greater. Phase 2 construction and installation activities would include drilling of 12 vertical wells, disposal of refuse extracted during drilling operations to the existing landfill, installation of the piping network and the ACAS and the construction of the concrete pad and cover to house the ACAS.

Phase 2 construction activities have been modeled as occurring directly after Phase 1 construction activities in order to show a worst-case analysis.

Construction emissions for the Project were calculated according to the construction project activities (Work Items) of the Project for each phase, Phase 1, closure of the landfill and Phase 2, post-closure environmental monitoring activities. Kunzman Associates Inc., analyzed all the activities as proposed for the Project, to determine the most intense activity that would be representative of the worst-case scenario during Project construction. The Report concluded that Work Items 1-3 would be combined because of the overlap among all three work items and Work Item 4 would overlap with Work Items 1-3, essentially

² Alternative Final Cover is the 2-foot final cover layer over the existing one foot intermediate cover layer.

³ Erosion control material will most likely be delivered from Coachella Valley Compost; however, depending on material availability, the material may also be provided by other facilities in the general vicinity (eastern Coachella Valley).

distinguishing Work Items 1-3 and Work Item 4 as the worst-case scenario for the Project under Phase 1.

Under Phase 2, the most intense activity representative of the worst-case scenario for the Project was concluded to be Work Item 2, the installation of the piping network, and the construction of the concrete pad and cover to house the ACAS. This was due largely because of the duration of the construction, approximately seven (7) days. Since the air quality analysis is designed to capture the worst-case scenario in terms of air quality impacts, it is assumed that all other Work Items, not mentioned here, would have fewer emissions associated with them and as such would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. The construction activities for the worst-case scenarios are described below.

Phase 1: Landfill Closure Activities

It may take approximately 36 days, according to the project schedule, to complete the construction of Phase 1 over the course of seven (7) work items, with construction activities typically occurring five days per week (M-F) between the hours of 7:30 AM and 5:30 PM. Work Items 1 and 3 represent the most intense part of construction with a total area of 4 acres of disturbance, however because Work Item 3 and 4 overlap, the totals for Work Items 1-3 and 4 are considered the worst case scenario, totaling 4.5 acres of disturbance. The following is a description of the activities (Work Items 1-3 and 4, worst-case scenario) for Phase 1:

Worst-case scenario (Work Items 1-3 and 4)

Work Items 1-3, which may occur simultaneously, include mobilization of equipment to the work site; removal of the fence near the disposal area, around the southern and north-western facing slope; the removal and transport or demolition and disposal, of the existing fee booth; soil excavation from borrow areas, and the placement of a 2-foot thick cover of soil over the disposal footprint (a total of approximately 110,000 cubic yards of soil will be required). Work Item 4 would involve the application of erosion control material over the final cover. Approximately fifty (50) loads of material will be delivered from the Coachella Valley Compost (approximately 40 miles roundtrip) at the rate of approximately two (2) trips per day, per truck (2) for twelve (12) days. Two days will include 3 deliveries instead of two to complete the 50 truckloads in 12 days.

Equipment planned for use for these activities would include off-road vehicles such as Medium and Large Dozers, Scrapers, Rubber-Tired Dozer, Motor Grader, On-Road 3-Axle Dump Trucks and Water Trucks.

Peak daily criteria air emissions under Phase 1 are expected to occur during the 1.5 month construction period for implementation of Work Items 1-3 and 4. These activities, which could occur simultaneously, include equipment delivery to the work site, removal of a portion of the security fence, soil excavation from borrow areas, and the placement of a 2-foot thick cover of soil over the disposal footprint.

As indicated below, in the Table A-1, the emissions of criteria pollutants during Project construction for both on-site and off-site under the most intense activities Work Item 1-3 and 4 will not exceed any of the SCAQMD thresholds. Therefore, no significant air quality impacts from mobile sources will occur during Project construction. See Appendix A, Air Quality and Greenhouse Gas Focused Analysis, for CalEEMod (Version 2016.3.1) Model Daily Emissions Printouts.

**Table A-1
Phase 1 Work Items 1-3 and 4
Construction-Related Criteria Pollutant Emissions**

Activity	Pollutant Emissions (lbs/day)					
	ROG	NOx	CO	SO ₂	PM10	PM _{2.5}
Worst-case Scenario Total for Overlapping Phases W 1-3 and 4	1.89	35.74	38.89	0.08	12.15	6.66
SCAQMD Thresholds	75	100	550	150	150	55
Exceeds Thresholds	No	No	No	No	No	No

Source: Air Quality and Global Climate Change Analysis Report, Kunzman Associates Inc., September 29, 2017

Phase 2: Landfill Post-closure Activities

It will take approximately 10 working days to complete the construction of Phase 2 installation of a gas collection system, over the course of two (2) Work Items, with construction activities typically occurring five days per week (M-F) between the hours of 7:30 AM and 5:30 PM. The following is a description of the activities (Work Item 2, worst-case scenario) for Phase 2:

Worst-case scenario (Work Item 2)

Activities, associated with Work Item 2 would include installation of the piping network and construction of the concrete pad and cover.

Equipment planned for use for this activity includes one (1) Backhoe, and one (1) all-terrain forklift.

Peak daily criteria air emissions under Phase 2 are expected to occur during implementation of Work Item 2, (the installation of the piping network and construction of the concrete pad and cover) primarily due to the long duration (seven (7) days) and minimal use of equipment, as opposed to the high equipment use but low duration of Work Item 1 (hole drilling and refuse extraction).

Table A-2 shows the Project’s maximum daily mobile source emissions under Phase 2. Refer to Appendix A, Air Quality and Greenhouse Gas Focused Analysis for CalEEMod Model Daily Emissions Printouts.

Table A-2
Phase 2, Work Item 2
Construction-Related Criteria Pollutant Emissions

Activity	Pollutant Emissions (lbs/day)					
	ROG	NOx	CO	SO2	PM ₁₀	PM _{2.5}
Worst-case Scenario Total for WI 2	2.02	3.8	18.87	0.04	4.07	1.23
SCAQMD Thresholds	75	100	550	150	150	55
Exceeds Thresholds	No	No	No	No	No	No

Source: Air Quality and Global Climate Change Analysis Report, Kunzman Associates Inc., September 29, 2017

As indicated in the Table A-2, which represents the worst-case and most intense work activity under Phase 2, Work Item 2, the emissions of criteria pollutants will not exceed any of the SCAQMD thresholds. Therefore, no significant air quality impacts from mobile sources will occur during Project construction.

2. Fugitive Dust – PM-10 & PM-2.5

Daily generation of fugitive dust will be greater during Phase 1, because Work Items 1- 3 and 4 will result in more earth-moving activities, transportation of soil from borrow areas and traveling on dirt roads. Phase 1 represents the “worst-case” in terms of daily fugitive dust generation. Under Work Item 4, the daily peak fugitive dust generation will occur during the scraping of borrow soil from borrow areas, transport and application of borrow soil (~110,000 CY overall).

With respect to fugitive dust impact analysis for the Project, fugitive dust generation sources consist of: 1) earthen material excavation and stockpiling with a scraper; 2) application of the earthen material with a dozer; 3) finish grading of deck/benches with a motor grader and slopes with a dozer; 4) truck unloading of import erosion control material; and 5) heavy equipment and worker personal vehicle (truck) travel on existing aggregate road(s) on the Project site.

Table A-3
Phase 1, Work Items 1-3 and 4
Total Daily Maximum On-Site Fugitive Dust Emissions

Fugitive Dust Source	PM-10	PM-2.5
Total Emissions:	12.15	6.66
SCAQMD Thresholds:	150	55
Exceed Thresholds	No	No

Source: Air Quality and Global Climate Change Analysis Report, Kunzman Associates Inc., September 29, 2017

**Table A-4
Phase 2, Work Item 2
Total Daily Maximum On-Site Fugitive Dust Emissions**

Fugitive Dust Source	PM-10	PM-2.5
Total Emissions:	4.07	1.23
SCAQMD Thresholds:	150	55
Exceed Thresholds	No	No

Source: Air Quality and Global Climate Change Analysis Report, Kunzman Associates Inc., September 29, 2017

As shown in Tables A-3 and A-4, the Project’s maximum daily fugitive dust emissions were evaluated for both Phases 1 and 2. As shown, both Phases would not exceed the regional thresholds established by the SCAQMD. No significant regional impact will result. Notwithstanding the determination of no regional impact, the Project will be subject to SCAQMD Rule 403 and required to implement the applicable dust control measures mandated by the rule for all dust-generating activities during Project construction.

FINDING: Less Than Significant Impact

3c. Result in a cumulative considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?

The proposed Project is located within the jurisdiction of the SCAQMD, within the jurisdictional boundary of the SSAB and within the Coachella Valley designated nonattainment area for Ozone, and PM-10. It is currently in attainment for carbon monoxide CO, lead, sulfur dioxide (SO₂), nitrogen dioxide (NO₂), and Particulate Matter (PM-2.5). A nonattainment designation refers to an area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for that pollutant.

The SCAQMD does not list any criteria thresholds for Ozone, which is formed by a photochemical reaction in the atmosphere of Ozone precursors, Volatile Organic Compounds (VOC) and Oxides of Nitrogen (NO_x), which, in the presence of sunlight, react in the atmosphere to form Ozone. However, it does list criteria thresholds for VOC and NO_x which were analyzed for the proposed Project.

It is important to note, by definition, a VOC is an organic compound that can evaporate into an organic gas and can be reactive or non-reactive. Reactive VOCs are those that undergo a photochemical reaction in certain conditions, resulting in ozone. Non-reactive or negligible reactivity VOCs do not react in the atmosphere to create ozone and are exempt to the definition of VOCs used by EPA in its regulation. ROG is an organic gas, generated from the exhaust of mobile sources that also undergoes a photochemical reaction resulting in ozone, in certain conditions. SCAQMD, per EPA regulations, regulates organic gases, primarily for their “reactive” potential in the atmosphere and to prevent the formation of ozone. Because

the principle concern related to ozone is organic compounds in outdoor air, only “reactive,” that is, ROG are analyzed in this report. For the purposes of comparing the ROG value to a VOC significance threshold, the terms are used interchangeably.

This analysis evaluated both Phase 1 and Phase 2 for total mobile emissions, on-site heavy equipment and on-road trips. Total mobile source emissions including on-site heavy construction equipment and on-road trips (worker vehicles to and from work, import and export of material etc.) are below SQAQMD thresholds, as shown on Table A-5.

**Table A-5
Nonattainment Criteria Pollutants SCAQMD Pounds/Day (lbs/d)**

	Ozone (lbs/d)		PM-10 (lbs/d)
	VOC	NO _x	
Phase 1			
Total Mobile Emissions	2.02	35.74	12.15
SCAQMD Thresholds	75	100	150
Exceed Thresholds	No	No	No
Phase 2			
Total Mobile Emissions	2.02	3.08	4.07
SCAQMD Thresholds	75	100	150
Exceed Thresholds	No	No	No

Source: Air Quality and Global Climate Change Analysis Report, Kunzman Associates Inc.

Conclusion, since the Project’s emissions do not exceed the SCAQMD’s regional thresholds for NO_x, VOC, and particulate matter (PM-10), the Project’s total mobile emissions do not contribute to the cumulative exceedance of a pollutant for which the Project area (Coachella Valley area of the SSAB) is nonattainment. Less than significant impact is anticipated.

FINDING: Less Than Significant Impact

3d. Expose sensitive receptors to substantial pollutant concentrations?

This discussion addresses whether the Project would expose sensitive receptors to construction-generated Diesel Particulate Matter (DPM), construction-generated fugitive dust (PM 10 and PM 2.5), operational related toxic air contaminants (TACs), or operational CO hotspots.

Diesel Particulate Matter:

The greatest potential for toxic air contaminant emissions would be related to DPM emissions associated with heavy equipment operations during construction of the proposed Project. According to the SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of "individual cancer risk." "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of toxic air contaminants over a 30-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. Given the relatively limited number of heavy-duty construction equipment (six (6) total - 2 Dozers, 2 Scrapers, 1 Rubber-Tired Dozer, and 1 Motorgrader), during the most intense worst-case scenario, (Phase 1, Work Items 1-3 and 4) and the short-term construction activity schedule (36 days - not accounting for work that may overlap, further reducing the number of working days); the proposed Project would not result in a long-term (i.e., 30 years) substantial source of toxic air contaminants emissions and corresponding individual cancer risk. Furthermore, construction-based particulate matter (PM), emissions (including diesel exhaust emissions) do not exceed any local or regional thresholds as shown in Table A-6. Therefore, no significant short-term toxic air contaminant impacts related to DPM would occur during construction of the proposed Project.

Localized Air Quality Impact Analysis:

In 2008, the SCAQMD revised the previously adopted Localized Significance Threshold (LST) methodology (and mass rate look-up tables by Source Receptor Area (SRA) that can be used to determine whether or not a project may generate significant adverse localized air quality impacts. The LST's were developed based on the ambient concentrations of the pollutants for each SRA and represent the maximum emissions of NOX, CO, respirable particulate matter (PM-10) and fine particulate matter (PM-2.5) from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards.

The maximum project size and receptor distance applicable to the LST methodology are 5 acres and 500 meters, respectively. The 4.5 acres of maximum disturbance is derived by the maximum amount of acres per day/ per an 8-hr day that a specific piece of equipment can move. Although the Project's estimated maximum acreage disturbance is approximately 4.5 acres during Work Item 1-3 and 4 in Phase 1, the most intense phase of construction, the actual acreage of the site under construction will be less than 2 acres as construction is categorized and carried out according to the Activity schedule. The emission thresholds were calculated based on the Coachella Valley source receptor area (SRA) 30. According to LST Methodology, any receptor located closer than 25 meters (82 feet) shall be based on the 25 meter thresholds. The nearest sensitive receptor to the proposed Project site is the single-family detached residential dwelling unit located approximately 0.45 miles (~724 meters) northwest of the proposed Project site; therefore, the SCAQMD Look-up Tables for 500 meters was used. Table A-6 shows the on-site emissions from the CalEEMod model for the different Work Items phases and corresponding local emissions thresholds.

The data provided in Table A-6 shows that none of the analyzed criteria pollutants would exceed the local emissions thresholds at the nearest sensitive receptors. Therefore, a less than significant local air quality impact would occur from construction of the proposed Project. No mitigation is required.

**Table A-6
Local Construction Emissions at Nearest Receptor for Phase 1**

Phase 1	On-Site Pollutant Emissions (pounds/day)			
	NOx	CO	PM10	PM2.5
Work Items 1 -3	30.39	34.05	8.87	5.11
Work Item 4	5.35	4.84	3.28	1.55
Work Item 5	2.94	17.71	4.01	1.17
Work Items 6 and 7	1.50	1.76	.13	.10
Work Items 1-3 and 4	35.74	38.89	12.15	6.66
SCAQMD Threshold for 500 meters (1,640 feet) or less	769	26,212	223	112
Exceeds Threshold?	No	No	No	No

Source: Air Quality and Global Climate Change Analysis Report, Kunzman Associates Inc.

CO Hotspots and Toxic Air Contaminants:

“CO hotspots” and toxic air contaminants (TACs) are two other pollutants that could cause localized air quality impacts on sensitive receptors in the vicinity of the Project emission sources.

“CO hotspots” are typically associated with project traffic causing an unacceptable level of service (LOS) at public road intersections. In this case, the Project traffic will primarily consist of material hauling trips on 66th Avenue from Highway 111 all of which are paved roadways. As analyzed in Transportation and Traffic section of this EA, the Project will not cause an unacceptable LOS at any of the intersections where Project related traffic is anticipated to occur. Lastly, the material hauling truck traffic of the Project will occur in a farm/public use region of the County with no sensitive receptors in the vicinity of the used intersections.

According to the California Air Resource Board, (CARB), sources of TACs include, “industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust.” Given that the Project a landfill closure project it will not generate TACs or cause an increase in generation of TAC from an existing source to a level that can cause a significant public health or environmental impact. There are no issues or concerns regarding TAC emissions from either Phase 1 or Phase 2. Therefore, no air quality impacts associated with TAC will result from the Project.

Conclusion

In conclusion, the proposed Project’s construction-based particulate matter (PM) emissions (including diesel exhaust emissions) do not exceed any local or regional thresholds as shown in Table A-6. None of the analyzed criteria pollutants would exceed the local

emissions thresholds at the nearest sensitive receptor (0.45 miles (~724 meters)). Therefore, a less than significant local air quality impact would occur from construction of the proposed Project. Traffic generated from the construction of the proposed Project will be negligible and would not cause an unacceptable LOS in the Project intersections. No effects to CO hot spots are anticipated. Lastly, TACs sources as described by CARB would not be a factor in the proposed Project, therefore impacts related to TACs are not anticipated. A less than significant impact is anticipated for 'substantial pollutant concentrations' as wholly discussed in this section.

FINDING: Less Than Significant Impact

3e. Create objectionable odors affecting a substantial number of people?

The SCAQMD CEQA Handbook states that an odor impact would occur if the proposed Project creates an odor nuisance pursuant to SCAQMD Rule 402, which states: "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which may cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property." If the proposed Project results in a violation of Rule 402 with regards to odor impacts, the proposed Project would create a significant odor impact.

Potential sources that may emit odors during construction activities, generally, include the application of materials such as asphalt pavement and diesel exhaust emissions. The objectionable odors that may be produced during the construction process are short-term in nature, approximately 46 days (Phase 1 and 2) according to the project activity schedule. Furthermore, the nearest off-site sensitive receptor to the Project site is the single family detached residential dwelling unit located approximately 0.45 miles (~724 meters) northwest of the proposed Project site. Due to the short-term nature, distance to the nearby sensitive receptors, no significant impact related to odors would occur during construction of the proposed Project. Diesel exhaust and VOCs would be emitted during construction of the proposed Project, which are objectionable to some; however, emissions would disperse rapidly from the Project site and therefore should not reach an objectionable level at the nearest sensitive receptors.

Moreover, construction-source odor emissions would be temporary, short-term, and intermittent in nature and would not result in persistent impacts that would affect substantial numbers of people. Landfill excavation during Phase 2, when it and if it occurs, could create objectionable odors but are not expected to be significant due to the age of the landfill, limited extent of excavation and exposure and distance from the excavation sites from the nearest sensitive receptors. Due to the short-term nature and limited amounts of excavated material during Phase 2, a less than significant impact related to odors would occur during construction of the proposed Project.

FINDING: Less Than Significant Impact

4. Biological Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Services?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Services?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Sources: RCIP, Existing Setting Report, Table 4.2.E – Generalized Natural Communities of Eastern Riverside County; CVMSHCP Plan Area Map; Site Reconnaissance conducted by RCDWR staff, May 2017; CVMSHCP (2017). Coachella Valley Multiple Species Habitat Conservation Plan,

4a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Services?

As shown in Figure 2 – Site Map, the Mecca II Landfill is in an area currently disturbed by landfill activities including landfill disposal twice per year and landfill maintenance activities. The landfill site disposal area is free of vegetative growth. The borrow areas, have sparse vegetation, mostly creosote bushes and wild flowers, sprouting during the spring after rain events. The site does not exhibit signs of native wildlife habitat (burrows, scat, paw prints etc.), or sensitive plant species on-site.

The Mecca II Landfill is in the eastern portion of Riverside County, which is within the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) area, but not within a CVMSHCP conservation area. The CVMSHCP is administered by the Coachella Valley Association of Governments (CVAG). Most of eastern Riverside County is covered by desert scrub, with chaparral at the western edge, and woodlands and forest at higher elevations in the San Jacinto Mountains and desert mountains.

According to the Existing Setting Report of the Riverside County Integrative Plan (RCIP), Riverside County, east and west, is mapped by USFWS, CDFW, and Riverside County databases. According to these databases, the natural communities existing within the eastern portion of Riverside County where the Mecca II Landfill is located is within the Generalized Sonoran Desert Scrub Natural Communities area. This plant community is dominated by widely spaced shrubs and occurs on well-drained desert soils of low salinity in areas where temperatures rarely fall below freezing. The Federal and State listed, proposed, and candidate species that may be expected to occur within these communities are: Coachella Valley milk-vetch (*Astragalus lentiginosus var. coachellae*), triple-ribbed milk-vetch (*Astragalus tricarinatus*), desert slender salamander (*Batrachoseps aridus*), desert tortoise (*Xerobates agassizii*), gilded flicker (*Colaptes chrysoides*), Gila woodpecker

(*Melanerpes uropygialis*), and the Peninsula bighorn sheep (*Ovis canadensis cremnobates*).⁴

The proposed Project would involve construction of the landfill's final cover, approximately 110,000 cubic yards of soil from on-site borrow areas will be applied to the existing grade of the landfill. The installation of the PPM will be installed for erosion control. The drainage structures will be installed in areas of potential water collection and flow to control and reduce erosion.

The Project site is not located in a CVMSHCP conservation area and no adverse effects through habitat modification to any species identified as a candidate, sensitive, or special status species will occur because no native wildlife habitat or sensitive plant species are present on site, as well as the fact that the Project site is already completely disturbed for waste related activities- waste disposal, borrow area, drainage improvements, access roads, etc. The Project site is also not located within an area requiring pre-construction surveys for the desert tortoise.⁵ Pre-construction surveys will be conducted if the Project is initiated during the Migratory Bird Treaty Act (MBTA) nesting season (February 1st through August 31st). Compliance with mitigation measure BIO-1 will ensure that impacts to nesting birds will be mitigated to a less than significant level.

MITIGATION MEASURES:

BIO-1 In order to avoid impacts to nesting birds protected by the Migratory Bird Treaty Act (MBTA) and State Fish and Wildlife Codes, removal of vegetation or any other potential nesting bird habitat should be conducted outside of the avian nesting season (February 1st through August 31st) if practical. If habitat must be cleared during the nesting season, a preconstruction nesting bird survey shall be conducted by a qualified biologist. If nesting activity is observed, appropriate avoidance measures shall be adopted to avoid any potential impacts to nesting birds.

FINDING: *Less Than Significant Impact After Mitigation*

4b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Services?

The CDFW, through its Natural Diversity Data Base, tracks the occurrence of natural communities which it considers most sensitive in the state. These natural communities considered sensitive to the state are; Coastal and Valley Freshwater Marsh, Desert Fan Palm Oasis Woodland, Mesquite Bosque, Sonoran Cottonwood Willow Riparian Forest, and Southern Riparian Forest.

The Desert Fan Palm Oasis Woodland occurs on intermittently flooded or saturated soils in

⁴ RCIP, Existing Setting Report, Table 4.2.E – Generalized Natural Communities of Eastern Riverside County

⁵ Per consultation with CVAG (Jim Sullivan, GIS Program Director of Environmental Services, October 2017)

the Sonoran Desert. The Project site, although within the Generalized Sonoran Desert Scrub Natural Community, is not a site that experiences intermittent flooding or saturated soils, as to foster Desert Fan Palm Oasis Woodland growth.

The Project site is entirely developed and has been an active landfill since 1982. It is fenced in with no access for terrestrial species. No riparian habitat or other sensitive natural community is located in the Project site; therefore no impacts would occur.

FINDING: No Impact is Identified

- 4c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

The Project is entirely developed and does not contain Waters of the U.S., including, federally protected wetlands or applicable water sources, as defined by Section 404 of the Clean Water Act that could be affected by the Project.

FINDING: No Impact is Identified

- 4d. Interfere substantially with the movement of any native resident or migratory fish and wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery site?**

Wildlife corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. Corridors mitigate the effects of habitat fragmentation by: (1) allowing animals to move between remaining habitats, which allows depleted populations to be replenished and promotes genetic diversity; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fires or disease) will result in population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs.

The proposed Project would consist of two (2) phases. Phase 1, would involve activities associated with the construction of the final cover, which will require soil application to the entire landfill surface (approximately 110,000 cubic yards from onsite northern and eastern borrow areas); application of PPM over the final cover; and the construction of drainage structures to channel water down the landfill deck into low points on site or into the eastern borrow area. Phase 2 would involve the post-closure maintenance and monitoring of the landfill's environmental systems. Groundwater monitoring wells already exist onsite and a gas collection system would only be installed if gas monitoring probes reach methane level concentrations of 5% rating or higher.

The Mecca II landfill is located in an area surrounded by farmland to the west and uninhabited desert terrain to the east. The Project site is not contiguous with open space

and, therefore, does not support the movement of larger mammals that require larger home range areas and dispersal distances or dense vegetative cover (e.g., mountain lion and bobcat). Species that do not require large home ranges and those species that are less restricted in movement pathway requirements (e.g. coyote, bird) are likely to move freely in their habitat ranges, even in areas where development has occurred (solar plant facilities, utility structures etc.). The Project site is not considered a “wildlife corridor” because it does not connect two or more habitat patches that would otherwise be fragmented or isolated from one another. The proposed Project is not expected to substantially affect the movement of wildlife in the Mecca region. Therefore, impacts to wildlife movement are considered less than significant.

FINDING: Less Than Significant Impact

4e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Riverside County General Plan policies related to the protection of biological resources refer to the corresponding MSHCP, having jurisdiction within the Project area. The CVMSHCP has jurisdiction in the eastern portion of Riverside County where the Project is located. The Project would not conflict with the CVMSHCP because it is not within a CVMSHCP conservation area. As a permittee to the CVMSHCP, the RCDWR will adhere to its obligations such as conducting seasonal pre-construction surveys if warranted. Also, no trees will be removed as part of the proposed Project; as such, the Project would not conflict with local policies or ordinances protecting biological resources, therefore, no impacts would occur.

FINDING: No Impact Identified

4f. Conflict with the provision of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The CVMSHCP is a regional multi-agency conservation plan that provides for long-term conservation of ecological diversity in the Coachella Valley region in Riverside County. The CVMSHCP includes an area of approximately 1.1 million acres in the Coachella Valley region within Riverside County. The Mecca II landfill falls within the CVMSHCP plan area boundaries; however the Project is not within a CVMSHCP conservation area. The Project site is fully developed as a landfill that has been in operation since 1982. The Project site is secured with a chain link fence around the perimeter of the landfill area, and as such does not serve as a corridor for the movement of native habitat. As a permittee to the CVMSHCP, the RCDWR will adhere to its obligations such as conducting seasonal pre-construction surveys if warranted. The Riverside County General Plan (2015) Policy OS 8.1, refers to the MSHCP relevant to the Project area for the protection of biological resources. Therefore, the proposed Project would not conflict with provisions adopted in the CVMSHCP, or the Riverside County General Plan. A less than significant impact is anticipated.

FINDING: Less Than Significant Impact

5. Cultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5??	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sources: Site Reconnaissance conducted by RCDWR staff, May 2017. Aerial Imagery, Google Maps 2017; Mecca II Landfill SWFP; RCDWR (2017). Mecca II Sanitary Landfill. Joint Technical Document No. 11 - Final Closure and Post-Closure Maintenance Plan, Project Description. December 2017.

5a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

The property encompasses approximately 80 acres which includes public right-of-way for 66th Avenue and easements for the Coachella Valley Canal. A total of 19 acres of the property is currently used as landfill disposal area. The Project site has been developed as a landfill, permitted to receive a daily maximum of 400 tons of MSW. It is surrounded by farmland to the west and northwest and desert terrain to the east. The Project area has been an active landfill since 1982 and does not contain any features deemed historical as defined in §15064.5 of the State CEQA guidelines, i.e., object, building, structure, site, area, place, record etc. associated with events, or the lives of important persons important in our past.

The proposed Project is a landfill closure project consisting of two Phases; Phase 1, would involve activities associated with the construction of the final cover, which will require soil, approximately 110,000 cubic yards from onsite eastern and/or northern borrow areas; application of PPM over the final cover to control and reduce erosion and the construction of drainage structures to channel water down the landfill deck into low points on site or

into the eastern borrow area. Phase 2 would involve the post-closure maintenance and monitoring of the landfill's environmental systems. Groundwater monitoring wells already exist onsite and a gas collection system would only be installed if gas monitoring probes reach methane level concentrations of 5% rating or higher.

The Project would not cause a substantial adverse change in the significance of a historical resource as referenced in the California Code of Regulations.

FINDING: No Impact Is Identified

5b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

The site does not contain any known archaeological resources, (e.g., pottery, basketry, bottles, weapons, weapon projectiles, tools, rock paintings or anything that would resemble an archeological resource). The site has been an active landfill since 1982, with solid waste underlying the permitted disposal area. The borrow areas (north and east) have been utilized as soil borrow areas for fill cover material. The entire site has been disturbed by landfill activities.

Additionally, in compliance with AB 52, relating to tribal notification of projects under CEQA, RCDWR sent Project notification letters (May, 30 2017) to seven requesting Tribes; Torrez Martinez, Twenty-Nine Palms, Soboba, Ramona, Cahuilla, Colorado River Indian Tribes, and Quechan Indian Nation. No formal consultation was requested by any of the Tribes that received notice. AB 52 notification letters can be found in Appendix B, AB 52 Notification. There were no concerns regarding known cultural resources in the Project area. However, in the unlikely event of accidental discovery of an archeological resource(s), the following mitigation measures would be implemented.

MITIGATION MEASURES:

CR-1 If subsurface cultural resources are encountered during any excavation, or if evidence of an archaeological site or other suspected historic resources are encountered, all ground disturbing activity will cease within 100 feet of the resource. A qualified archaeologist will be retained by the operator to assess the find, and to determine whether the resource requires further study. Additionally, any potentially significant cultural resource(s), discovered on site shall require notification to the seven (7) requesting Tribes under AB 52. Potentially significant cultural resources could consist of, but are not limited to, stone, bone, fossils, wood or shell artifacts or features, including structural remains, historic dumpsites, hearths and middens. Midden features are characterized by darkened soil, and could conceal material remains, including worked stone, fired clay vessels, faunal bone, hearths, storage pits, or burials and special attention should always be paid to uncharacteristic soil color changes. Any previously undiscovered resources found during construction should be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and evaluated by a qualified archaeologist retained by the County for significance under all applicable regulatory criteria.

CR-2 No further grading will occur in the area of the discovery until the County, along with the applicable Tribe(s), approves measures to protect the resources. Any archaeological artifacts recovered as a result of mitigation will either be donated to a qualified scientific institution approved by the County where they would be afforded long-term preservation to allow future scientific study or if the resource is determined to be a tribal cultural resource, then the final disposition of the resource shall require approval of applicable Tribe(s).

Based on the activities that have already occurred during the life of the landfill/Project site (landfill operations, grading etc.), in addition to Tribal notification responses where no concern over the Project area for cultural resources was noted, the likelihood of uncovering cultural resources is very low. However, if uncovered, adherence to the mitigation measures CR-1 and CR-2, which require the operator to stop work immediately and set up a 100-foot buffer if subsurface cultural resource(s) are encountered, retain a qualified archaeologist to assess the find, and notify the requesting Tribes, would ensure that impacts to cultural resources would be less than significant.

FINDING: Less Than Significant Impact After Mitigation

5c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The vicinity where the Project is located is classified as having low paleontological sensitivity which is based on geologic formations known to contain fossilized biotic remains of ancient environments according to a countywide inventory for paleontological sensitivity. The Project site is an open landfill facility and surrounded predominantly by farmland to the west and desert terrain to the north and northeast. The proposed Project would involve extraction of soil from current borrow areas to be used for fill material during the final cover installation. The excavation activities would essentially cut into existing, already disturbed areas where soil has been stockpiled for landfill daily cover.

In summary, the site does not contain unique geologic features and is classified as having low paleontological sensitivity, therefore, impacts to unique geological features, and unique paleontological resources directly or indirectly would not be impacted.

FINDING: No Impact Is Identified

5d. Disturb any human remains, including those interred outside of formal cemeteries?

There are no burial grounds located onsite known to RCDWR, or by the seven (7) local Tribes consulted per compliance with AB 52, for potential identification of cultural resource areas. However, in the event that in the construction process, human remains are discovered, the Project proponent shall act in accordance to California State Health and Safety Code Section 7050.5 which dictates that in the event of an accidental discovery or recognition of any human remains during ground-disturbing activities, no further disturbance shall occur until the County Coroner has made the necessary findings as to the origin and disposition pursuant to §15064.5 (e) of the California Code of Regulations.

MITIGATION MEASURE:

CR-3 In the event of an accidental discovery or recognition of any human remains, PRC Section 5097.98 must be followed. In this instance, once Project-related earthmoving begins and if there is accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps shall be taken:

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, then the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" of the deceased Native American. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98, or;
2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendant or on the property in a location not subject to further subsurface disturbance:

The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission; the descendant identified fails to make a recommendation; or the landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the NAHC fails to provide measures acceptable to the landowner.

The proposed Project was not identified by the Tribes, who requested notification of the Project, as being a potential burial ground. The potential presence of any human remains, including those interred outside of formal cemeteries is very unlikely on the Project site (in light of the historical use of the site and the ongoing landfill activities that have not yielded evidence of the site previously existing as a burial site). Mitigation Measure C-3 would be implemented to ensure the proper protocols are taken in the event human remains (Native American or otherwise) are discovered. The proposed Project does not reasonably anticipate, with all the available evidence stated above, to cause a disturbance of any human remains, including those interred outside of formal cemeteries. As such, the proposed Project would be less than significant after mitigation.

FINDING: *Less Than Significant Impact After Mitigation*

6. Geology and Soils

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Sources: The Earth Technology Corporation (1990). Report on Stability Analysis of Cut Slopes at Blythe, Coachella and Mecca II Landfill Sites. November 16, 1990; Soil Survey Manual, Soil Science Division Staff. Agriculture Handbook No. 18. US Department of Agriculture, March 2017; Riverside County (2008). Natural Hazard Mapping, Riverside County General Plan. 2000 Technical Study

6ai. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

The San Andreas Fault Zone is the closest major fault system to the Project site. Because of its relatively frequent (high recurrence rate) large earthquakes, the San Andreas Fault is considered the “Master Fault”, controlling the seismic hazard in Southern California. In the vicinity of Riverside County, the San Andreas fault zone splays into three segments; the San Bernardino Mountains segment, the Coachella Valley segment, and the Mohave Desert segment. Between Cajon and San Geronio Passes, the County is bisected by the San Bernardino segment.

The Coachella Valley segment of the San Andreas runs along the northeastern margin of the Coachella Valley. The Coachella segment runs north of the Mecca II landfill. The high risk of earthquakes in California, generally, is well documented, more specifically around the San Andreas Fault Zone. The Coachella segment has an estimated 22% probability of rupturing before the year 2024, and is capable of producing a magnitude 7.1 earthquake (Natural Hazard Mapping, Riverside County General Plan 2000 Technical Study).

The proposed Project is a landfill closure project consisting of two Phases; Phase 1, would involve activities associated with the construction of the final cover, which will require approximately 110,000 cubic yards of soil from onsite northern and eastern borrow areas; application of PPM over the final cover to control and reduce erosion and the construction of drainage structures to channel water down the landfill deck into low points on site or into the eastern borrow area. Phase 2 would involve the post-closure maintenance and monitoring/installation of the landfill’s environmental systems. The Project as described, will not add any structures for the purpose of human habitation, work, convening, or otherwise, where people or structures could be exposed to risk of loss, injury or death resulting from seismic fault rupture.

FINDING: Less Than Significant Impact

6a.ii. Strong seismic ground shaking?

Ground shaking is the horizontal or vertical ground movement caused by an opposite movement of the ground along an active seismic fault. The intensity of shaking is usually measured in terms of peak horizontal ground acceleration (pga) as a percentage of gravity (g). As mentioned above, the site is located on the San Andreas Fault Zone, in the Coachella segment, where in the event of an earthquake, seismic ground shaking will occur. It is difficult to predict when and to what extent seismic shaking will occur. For reference, in the past ten years, according to United States Geological Survey earthquake catalog, the area has experienced four earthquakes between 2.8 and 3.0 magnitude. Since the landfill site is and will remain an open space after full closure, devoid of any structures, the Project will not result in or expose people to potential adverse impacts involving strong seismic ground shaking.

FINDING: Less Than Significant Impact

6aiii. Seismic-related ground failure, including liquefaction?

According to the Natural Hazard Mapping, Analysis, and Mitigation: a Technical Background Report in Support of the Safety Element of the New Riverside County 2000 General Plan, Generalized Liquefaction Susceptibility Map Riverside County, CA, the Mecca II Landfill site is rated as having moderate potential susceptibility for liquefaction. Since the landfill site is and will remain an open space, devoid of any human occupied structures, the Project will not result in or expose people to potential adverse impacts involving ground shaking and liquefaction.

FINDING: Less Than Significant Impact

6aiv. Landslides?

According to the Natural Hazard Mapping, Analysis, and Mitigation: a Technical Background Report in Support of the Safety Element of the New Riverside County 2000 General Plan, Earthquake-Induced Slope Instability Map, the Project area is not located in an area susceptible to landslides. Furthermore, the landfill benches and slopes are engineering to minimize landslides caused by seismic earthshaking.

Therefore, the Project will not result in or expose people to potential adverse impacts involving landslides.

FINDING: No Impact Is Identified

6b. Result in substantial soil erosion or the loss of topsoil?

The proposed Project is underlain by Alluvial fan deposits (Qf). These materials consist of poorly graded sand, silty sand, and gravel. Silt interbeds and fine-grained sands occur in the upper part of the alluvial fan deposit with silty sand and gravel present in the lower part of the exposed section.⁶ The application of PPM would aid in reducing soil erosion and loss of topsoil due to either wind or water erosion.

The landfill slopes, upon closure, would be engineered to improve soil stability, thereby reducing the potential for soil erosion, with negligible impacts to top soil; therefore, a less than significant impact is anticipated as a result of the Project.

FINDING: Less Than Significant Impact

6c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

The stability of cut and fill slopes is primarily a function of the steepness of the slope, and the character of the material that the slope is composed of. Land subsidence is the lowering

⁶ The Earth Technology Corporation (1990). Report on Stability Analysis of Cut Slopes at Blythe, Coachella and Mecca II Landfill Sites. November 16, 1990

of the land-surface elevation from changes that take place underground. Common causes of land subsidence in California from human activity are pumping water, oil, and gas from underground reservoirs, as well as initial wetting of dry soils (hydro-compaction).

Subsidence (differential settlement) at the landfill is expected due to the decomposition of waste, which may result in loss of elevation over time. However, no structures are proposed to be built on the landfill surface and any evidence of subsidence (typical feature at a landfill) would be immediately addressed/repared as part of standard post-closure maintenance activities. The proposed Project would involve construction of the final cover; application of PPM over the final cover to control and reduce erosion and the construction of drainage structures to channel water down the landfill deck into low points on site or into the eastern borrow area. Phase 2 would involve the post-closure maintenance and monitoring of the landfill's environmental systems, consisting of bore hole drilling and refuse excavation; installation of the piping network; construction of the concrete pad and cover; and, installation of the ACAS.

The development of the final planned finish grade is currently ongoing, and built up during site operations. Once completed, it will consist of deck grades of three (3) percent minimum, side slopes no steeper than 3:1 and drainage benches provided at least every 50 feet vertical.⁷

The landfill disposal unit has been constructed with MSW and soil (daily cover), graded and compacted to create optimal stability. In conclusion, the Project will not result in or expose people to potential impacts involving on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

FINDING: Less Than Significant Impact

6d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial risk to life and property?

The shrink-swell potential of soil refers to the change in volume of the soil, which results from a change in moisture content and can be determined on the basis of the amount and type of clay in the soil layers, that is, the higher percentage of clay content in the soil, the higher the expansion index (expansion potential). Some clay soils expand when moisture is added and shrink when dry. High shrink-swell characteristics affect construction of roads, foundations of structures, and sites for reservoirs. The Mecca II Landfill, contains Alluvial fan deposits (Qf) consisting of poorly graded sand, silty sand, and gravel. Unlike clay, which is very fine-grained, these types of soils (sand, silty sand and gravel) are coarse in texture and exhibit a low expansion potential. Notwithstanding, the Project does not propose to build structures that would create a risk to life and property. Therefore, the potential impacts involving expansive soil are considered insignificant.

FINDING: Less Than Significant Impact

⁷ Riverside County Department of Waste Resources. Mecca II Sanitary Landfill. Joint Technical Document No. 11. Final Closure Plan and Post-Closure Maintenance Plan. December 2017.

6e. Have soils incapable of adequately supporting the use of septic tanks, or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The Project has been in operation since 1982 and has since utilized portable restroom facilities. During construction, temporary portable restrooms would be used and there would be no need for a septic tank system. Implementation of the Project would not require septic tanks or alternative waste water disposal systems. No impact is anticipated as a result of Project implementation.

FINDING: No Impact Is Identified

7. Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Source: Air Quality and Global Climate Change Analysis Report, Kunzman Associates Inc., September 29, 2017

7a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

An Air Quality Analysis and Global Climate Change Impact Analysis (Report) was prepared by Kunzman Associates Inc. (2017) to evaluate the Project's potential for impacts related to greenhouse gases (GHGs). The Project will generate greenhouse gases (GHG), such as CO₂ and CH₄, during construction of Phases 1 and 2. Although the Project's GHG emissions are only temporary and in a very small amount, the Project could still contribute to global warming and climate change because the emissions will add to the existing anthropogenic GHG inventory in the atmosphere.

The proposed Project does not include an operational component since the Project involves the closure of an existing landfill. Landfill operations (collection, and disposal of solid waste) would cease to continue. Post-closure maintenance standards, as required by law, per Title 27, of the California Code of Regulations (CCR), would specifically involve monitoring of environmental systems, i.e., ground water monitoring and LFG migration and concentration levels monitoring, as well as standard maintenance when required (e.g., repairs to slopes, down drains, security fencing etc., as needed).

Upon landfill closure, the Mecca II Landfill will continue to generate LFG, even after active landfill operations have officially ended. The rate of decomposition will depend on the amount of green and food waste and other putrescible waste underlain on the landfill unit, and the length of time the putrescible waste has been buried, among other factors. Since the Project is not related to the existing waste in place, this GHG analysis does not include GHG emissions from the decomposition of waste. In other words, the decomposition of the waste in place would continue to generate insignificant GHGs emissions (due to the dry, arid desert climate) irrespective of the proposed Project. In fact, the Project would only decrease the amount of fugitive GHGs from decomposition by installation of the landfill cap (an extra two feet of soil cover over the waste).

Only CH₄ in the LFG that has escaped from the landfill surface and become fugitive in the atmosphere is considered by CARB, as an anthropogenic GHG that could contribute to global warming effects. The proposed Project will produce GHG emissions from two sources: 1) CO₂ and CH₄ in engine exhaust emissions from on-site construction equipment during Phase 1 and Phase 2 construction; and 2) CO₂ in the engine exhaust emissions from workers' vehicles and hauling trucks.

A. Direct GHG Emissions:

Maximum GHG emissions from the two direct sources (i.e., equipment and on-road vehicles) for both Phases 1 and 2 are evaluated in this EA. Due to the small scale and temporal nature of the Project, GHG emissions are expressed in metric ton (MTCO₂E) instead of the international standard unit of million metric ton (MMTCO₂E) for ease of reading and understanding. Global Warming Potential of CH₄ is assumed 28-36 times that of CO₂.

As stated previously, the proposed Project consists of two phases; Phase 1 would involve activities associated with the construction of the final cover, which will require, approximately 110,000 cubic yards of soil from onsite eastern and/or northern borrow areas; application of PPM over the final cover and the construction of drainage structures to channel water down the landfill deck into low points on site or into the eastern borrow area.

Phase 2 would involve the post-closure maintenance and monitoring of the landfill's environmental systems. A gas collection system would only be installed if gas monitoring probes reach methane level concentrations of 5% rating or higher. The gas collection system would consist of an ACAS, designed to capture non-methane organic compound (NMOC) emissions from MSW landfills with a control efficiency of 98%. Because, the ACAS does not capture GHGs, the installation of an ACAS system during post closure, would not offset any GHG emissions and would therefore escape into the atmosphere.

Methodology

As stated previously, an Air Quality and Global Climate Change Impact Analysis report was prepared by Kunzman Associates, Inc., which the following analysis on GHG emissions is based on. The construction-related GHG emissions were calculated by CalEEMod Version 2016.3.1, and were based on a 30 year amortization rate (as recommended in the SCAQMD GHG Working Group meeting on November 19, 2009). The Project's emissions were compared to the Riverside County Climate Action Plan (CAP) significance threshold of 3,000 metric tons CO₂e per year. The CalEEMod Annual Output for both phases of the Project is available in Appendix A of the Air Quality and Global Climate Change Impact Analysis.

Project-Related Greenhouse Gas Emissions

A summary of the results are shown below in Table G-1. Table G-1 shows that Phase 1 would generate approximately 2.06 metric tons of CO₂e per year and Phase 2 would generate approximately 0.51 metric tons of CO₂e per year. According to the thresholds of significance established in Section V, of the Air Quality and Global Climate Change Impact Analysis, a cumulative global climate change impact would potentially occur if the GHG

emissions created from the Project would exceed the screening threshold of 3,000 metric tons per year of CO₂e. As the Project's emissions are well below the screening threshold (even when the total emissions are not amortized over 30 years), no mitigation is required.

**Table G-1
Project-Related Greenhouse Gas Emissions¹**

Category	Greenhouse Gas Emission (Metric Tons/Year)					
	Bio-CO ₂	NonBio-CO ₂	CO ₂	CH ₄	N ₂ O	CO ₂ e ²
Construction Phase 1	0.00	61.8	61.8	0.00	0.00	61.8
Construction Phase 2	0.00	15.3	15.3	0.00	0.00	15.3
CO ₂ e emissions amortized over 30 years						2.57
Screening Threshold						3,000
Exceeds Threshold?						No

Source: Air Quality and Global Climate Change Analysis Report, Kunzman Associates Inc., September 29, 2017

¹ Based on project activity schedule 36 days for Phase 1 and 10 days for Phase 2

² Metric tons of CO₂ equivalent

In addition, in the event that the LFG collection system is needed (Phase 2), RCDWR would be required to obtain a SCAQMD Rule 1150 Permit to Excavate, which sets maximum emission rates allowed, in parts per million. The RCDWR will comply with all SCAQMD Rule 1150 LFG emission limits and permit requirements.

Additionally, because GHG emissions are cumulative, a scenario of doubling the construction activity schedule to 92 days from 46 days, which exceeds the estimated project duration 40-60 days, was used to determine if exceedance of the screening threshold would occur under this scenario. While unlikely to occur, this represents a worst case analysis for GHG emissions. Even after considering a longer activity schedule, that is, doubling the construction period and its associated emissions (124.3 of MTCO₂e for Phase 1 and 30.6 MTCO₂e for Phase 2), the total emissions (154.56 MTCO₂e) amortized over 30 years would only total 5.16 MTCO₂e (CO₂e emissions amortized over 30 years) as shown in Table G-2. Again, given this scenario, Project emissions would still remain well below the screening thresholds.

Table G-2

Project-Related Greenhouse Gas Emissions¹

Category	Greenhouse Gas Emission (Metric Tons/Year)					
	Bio-CO2	NonBio-CO2	CO2	CH4	N2O	CO2e ²
Construction Phase 1	0.00	124.3	124.3	0.00	0.00	124.3
Construction Phase 2	0.00	30.6	30.6	0.00	0.00	30.6
CO ₂ e emissions amortized over 30 years						5.16
Screening Threshold						3,000
Exceeds Threshold?						No

¹ Based on a scenario of doubling the construction period from 46 days to 92 days (exceeding the 40-60 day estimated project duration).

² Metric tons of CO₂ equivalent

Conclusion:

State CEQA Guidelines § 15064(b) states: “The determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved. This judgment must, however, be based on scientific information and other factual data to the extent possible.” The RCDWR has determined that the proposed Project will not have a significant impact on global warming/climate change as demonstrated in the quantitative analysis prepared above (insignificant Project emissions), as well as that the Project is a small and temporary (± 40 to 60 days) construction project duration (landfill closure and post-closure). Moreover, the closure of the Mecca II landfill will effectively cease landfill operations, thus end the acceptance of waste for burial at the site, which, in turn, will incrementally reduce GHG emissions going forward.

Therefore, Project impacts associated with the generation of emissions that lead to the development of greenhouse gasses is less than significant.

FINDING: Less Than Significant Impact

7b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The County of Riverside adopted the CAP in December of 2015. The overarching goals of the CAP is to address cumulative GHG emissions, set reduction targets and provide an implementation plan to implement the stated reduction measures of the CAP. A project would be in conflict with the CAP if the Project’s operational emissions exceed established standards of significance.

The goals and policies of the CAP include:

1.3 Goals

Provide a list of specific actions that will reduce GHG emissions, giving the highest priority to actions that provide the greatest reduction in GHG emissions and benefits to the community at the least cost.

- Reduce emissions attributable to Riverside County to levels consistent with the target reductions of AB 32.
- Establish a quantified reduction plan for which future development within Riverside County can tier and thereby streamline the environmental analysis necessary under CEQA.

The standards of significance are multilevel, first if a development project contributes less than 3,000 MT CO₂e per year, it is categorized as a small project under the CAP and is therefore considered less than significant under CEQA. The second level is triggered if the development project is above the 3,000 MT CO₂e per year, which would then be subject to the Screening Tables or alternative GHG mitigation analysis.

As demonstrated in the GHG analysis conducted by Kunzman Associates Inc., the Project would generate CO₂e emissions far below the 3,000 MT CO₂e threshold as shown in Tables G-1 and G-2 and therefore would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

FINDING: Less Than Significant Impact

8. Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Source: CalEPA (2017) Cortese List Data Sources. Accessed online, July 03, 2017; Department of Toxic Substances Control EnviroStor database 2017.

8a. Create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials?

The Project consists of constructing the landfill’s final cover, constructing drainage structures to reduce erosion, and installing PPM over the final cover. No hazardous materials will be transported to the site or disposed of on site as part of the final closure or post-closure part of the Project. Waste that is excavated during Phase 2, would be place in 40-yard dumpsters and hauled away to a landfill or transfer station for proper disposal.

The Project will not involve the use of hazardous substances, such as oil, pesticides, chemicals, or radioactive materials. Due to its small scale and short duration, the Project will not store diesel fuel onsite for equipment operation, since periodic mobile fueling from a fuel truck will suffice. If diesel fuel is temporarily stored on-site for Phase 1 of the Project, storage and handling will be in compliance with State and local hazardous waste control laws.

Soil to be used for the final cover will be used from the existing borrow areas. The borrow areas are not underlain by MSW and do not contain waste materials of any kind. Impacts relating to hazardous materials transport and disposal are less than significant.

FINDING: Less Than Significant Impact

8b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

During construction there will be a limited risk of accidental release of hazardous materials such as oil, gasoline or other fluids during the operation of construction equipment. Compliance with State and local hazardous waste control laws such as proper handling, transport, storage, disposal and clean-up of hazardous waste in the event of accidental releases, would reduce the risk of any damage or injury to the public or the environment from these potential hazards to a less than significant level.

FINDING: Less Than Significant Impact

8c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one quarter-mile of an existing or proposed school?

The Mecca II Landfill is surrounded by farmland to the northwest, west and south of the site, and open desert land is located north and northeast of the site. The nearest school to the Project site is Saul Martinez Elementary School, located approximately 3 miles west of the site. Therefore no impacts would occur from the emission of hazardous materials or substances within one quarter mile of an existing or proposed school.

FINDING: No Impact Identified

- 8d. Be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

Government Code Section 65962.5 requires the Department of Toxic Substances Control (DTSC) to compile a list (known as the "Cortese List") of known sites containing hazardous materials and submit to the Secretary for Environmental Protection for the availability to cities, counties and individuals. Review of the CalEPA's Cortese⁸ list confirms that; 1) according to the Department of Toxic Substances Control (EnviroStor database) the Project site is not located on the list of Hazardous Waste and Substance sites nor is it on the list of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 for the Health and Safety Code; 2) the Project site is not listed under the State Water Resources Control Board's (SWRCB) GeoTracker website to contain any leaking underground storage tanks; 3) it is not on the list of sites identified with waste constituents above hazardous waste levels outside the waste management unit; and 4) it is not on the list of active Cease and Desist (CDO) or Clean Up and Abatement (CAO) orders under from the Water Board. Thus, the proposed Project would not create a significant hazard to the public or the environment.

FINDING: No Impact Identified

- 8e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?**

The proposed Project is not located within two miles of a public use airport or an area subject to an airport land use plan. The nearest public use airport is the Jacqueline Cochran Airport, approximately 9.1 miles northwest of the Mecca II Landfill. Therefore, no impacts related to airport safety hazards would occur.

FINDING: No Impacts Identified

- 8f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?**

⁸ CalEPA (2017) Cortese List Data Sources. Accessed online, July 03, 2017

The proposed Project is not located within the vicinity of a private airstrip that would result in a safety hazard for people working in the Project area. A review of federal aviation airports facilities data show a public airport (Jacqueline Cochran Airport), as stated above, approximately 9.1 miles northwest of Mecca II Landfill. Therefore, the proposed Project would not result in a safety hazard for people working at the Project site. No impacts would occur.

FINDING: No Impacts Identified

8g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The Mecca II Landfill is an active landfill, which is only open twice per year. The landfill is proposed to be permanently closed as part of this Project. Closure would consist of the construction of the final cover; the application of PPM over the final cover to reduce and control erosion and the construction of drainage structures to channel water down the landfill deck into low points on site or into the eastern borrow area. As part of Phase 2, the Project would also involve the post-closure maintenance and monitoring of the landfill's environmental systems. The Project does not propose structures, architectural elements or plans that would hinder emergency evacuation plans or be inconsistent with emergency response plans.

Therefore, the proposed Project would not interfere with an emergency response plan or emergency evacuation plan for the region.

FINDING: No Impacts Identified

8h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands area adjacent to urbanized areas or where residences are intermixed with wildlands?

The Mecca II Landfill site is not located within a federal, state or local "very high" or "moderate" fire hazard area.⁹ The proposed Project would involve two (2) phases. Phase 1 would involve activities associated with the construction of the final cover, which will require approximately 110,000 cubic yards of soil from onsite eastern and/or northern borrow areas; application of PPM over the final cover; and the construction of concrete drainage structures to channel water down the landfill deck into low points on site or into the eastern borrow area. Phase 2 would involve the post-closure maintenance and monitoring of the landfill's environmental systems. The Project does not propose structures or buildings that would expose people to risk of loss, injury or death involving wildland fires. No impact is identified.

FINDING: No Impacts Identified

⁹ Riverside County General Plan, Safety Element, Figure S-11 Wildfire Susceptibility Map

9. Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j. Inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Source: Federal Emergency Management Agency, Flood Insurance Rate Maps, Community Panel No 2950, Map No. 06065C2950G and Community Panel Nos. 2975, Map No. 06065C2975G; California Irrigation Management Information System (CIMIS), the Oasis – Imperial/Coachella Valley – Station 136

9a. Violate any water quality standards or waste discharge requirements?

The micro climate in the unincorporated community of Mecca is an arid, hot desert climate, evidenced by the desert habitat in and surrounding the Project area (plants that thrive on very little water). According to the California Irrigation Management Information System (CIMIS), the Oasis – Imperial/Coachella Valley – Station 136, registered 0.0 (inches) total precipitation from September 2016 to August 2017. The Oasis/Mecca area is a desert area which receives minimal rain throughout the year. According to the RCIP Existing Setting Report (pg. 4.3-8), the Salton Sea area’s average annual precipitation is under 3 inches. Notwithstanding, in the event of rare but severe storm events, the storm flows would be contained onsite to the maximum extent practicable.

The proposed Project would consist of two (2) phases. Phase 1, would involve activities associated with the construction of the final cover, which will require approximately 110,000 cubic yards of soil from onsite eastern and/or northern borrow areas to be applied to entire landfill surface; application of PPM over the final cover; and the construction of drainage structures. Phase 2 would involve the post-closure maintenance and monitoring of the landfill’s environmental systems. Groundwater monitoring wells already exist onsite and a gas collection system would only be installed if gas monitoring probes reach methane level concentrations of 5% rating or higher.

Project construction could cause short term impacts to surface water quality from activities such as, grading, cutting etc., which would generate sediment created by soil disturbance which in turn could end up in storm water flows. However, impacts to water quality would be reduced by design features and through implementation of the required Storm Water Pollution Prevention Plan (SWPPP) under the National Pollutant Discharge Elimination System (NPDES) Program as described in the two following paragraphs.

The landfill's final cover is designed to drain precipitation from the top deck of the landfill through diversion berms into down drains that would allow water to drain into the eastern borrow pit area on site or west through a drain and onto a low point onsite. Precipitation on the slopes of the landfills would be absorbed by the PPM layer (depending on the intensity of the precipitation), evaporate or flow down the slopes into concrete or asphalt trapezoidal drains that would then channel the water westward into a low point onsite, or east into the eastern borrow pit area.

These short term impacts will be mitigated through implementation of the required Storm Water Pollution Prevention Plan (SWPPP) under the National Pollutant Discharge Elimination System (NPDES) Program, which regulates water quality when associated with construction activities. The SWPPP addresses all pollutants and their sources, including sources of sediment associated with construction, construction site erosion, and all other activities associated with construction activity and controlled through the implementation of BMPs. Effective September 2, 2011, the NPDES's new Construction General Permit (CGP) requires SWPPPs to be prepared for construction sites over one (1) acre of disturbed area. The Project will be subject to the CGP requirements for protection of water quality and associated habitat. In addition, during construction, the Project supervisor may implement the following Mecca II, SWPPP specific BMPs which include, but are not limited to:

Minimum BMPs

- Good Housekeeping
- Preventive Maintenance
- Spill and Leak Prevention and Response
- Material Handling and Waste Management
- Erosion and Sediment Controls

Advanced BMPs

- Earthen Berms
- Track-Walking Slopes
- Velocity Dissipation Devices (EC-10)

Details regarding the listed BMPs can be found in Appendix D. In addition, as part of the landfill's post-closure maintenance program, post-closure inspections, maintenance and repairs relating to water quality protection systems will be ongoing for up to 30 years, or when the site is no longer a threat to public health or the environment, as approved by regulatory authorities. Therefore, the Project is not anticipated to violate any water quality standard(s).

The Project as proposed and described would permanently close the Mecca II Landfill. The proposed Project will continue to comply with Waste Discharge Requirements and Monitoring and Reporting Program Order No. 01-142 adopted by the California Regional Water Quality Control Board - Colorado River Basin (RWQCB-CRB) for the Mecca II Landfill during post-closure. Furthermore, it is the objective of the Project to design a landfill cover

as to maintain its integrity over the long term and to reduce and prevent to the maximum extent practicable the exposure of buried solid waste that may be discharged from the landfill and conveyed by storm water flows. The proposed Project does not include plans to discharge waste into any stream, river or any other water body. The implementation of the proposed Project would allow greater protection of the landfill surface to prevent solid waste from being discharged. Therefore, the Project is not anticipated to violate any waste discharge requirements.

FINDING: Less Than Significant Impact

- 9b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, such that there could be a net deficit in aquifer volume or a lowering of the local groundwater table (e.g. , the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?)**

The proposed Project does not propose land use changes that would necessitate the use of groundwater sources from an underlying basin, nor would it require construction of production wells. The Project will not require the use of groundwater for either of the two Project phases. Project implementation of Phase 1 consists of the construction of the final cover, which will require soil, approximately 110,000 cubic yards from onsite eastern and/or northern borrow areas; application of PPM over the final cover and the construction of concrete drainage structures. Phase 2 would involve the post-closure maintenance and monitoring of the landfill's environmental systems. Groundwater monitoring wells already exist onsite and a gas collection system would only be installed if gas monitoring probes reach methane level concentrations of 5% rating or higher. Surface water will continue to percolate into the ground by flowing into the eastern soil borrow pit area, or into the western-most low point onsite.

A 4,000-gallon water truck will draw water for fugitive dust suppression and soil compaction from either an off-site water hydrant located approximately 2-miles west of the landfill or 10,000-gallon water tower installed onsite filled from an adjacent property owner's water reservoir, south of the Project site through an easement. Water will not be drawn from groundwater aquifers. Therefore the proposed Project would have a less than significant impact on depletion of groundwater supplies or interference with groundwater recharge.

FINDING: Less Than Significant Impact

- 9c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?**

The Project proposes to permanently close the Mecca II landfill. The Mecca II landfill has been in operation since 1982 and is not traversed by streams or rivers that would be impacted by the closure and post-closure of the landfill and as such no alteration of the course of a stream or river would occur as a result of Project implementation. The Project would not alter the existing drainage patterns onsite or within the area, since the drainage

patterns for the closure of the site would remain the same. Precipitation would continue to either drain into the eastern soil borrow pit area or west into a low point onsite.

Therefore, this Project is not expected to have a significant adverse impact on the existing drainage pattern and impacts would be less than significant.

FINDING: Less Than Significant Impact

9d. Substantially alter the existing drainage pattern of the site or area, including, through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?

As stated in 9(c), the proposed Project does not propose to alter the existing drainage pattern of the site or area. The storm flows would continue to be diverted from the top deck and from the landfill benches and landfill slopes onto drains at the toe of the landfill slopes, which would then either be channeled to the eastern borrow area or the western-most low point on site. The grade of the top deck and benches are designed to prevent ponding and flooding. As stated in 9(a), the Oasis/Mecca area is an arid climate, experiencing very little rain during the rainy season. What little precipitation does fall on the landfill either evaporates, permeates into the sandy soil, or is retained onsite.

The Project is not expected to have an adverse impact on the hydrology, channel hydraulics, and drainage patterns which would result in flooding on-site or off-site.

FINDING: Less than Significant Impact

9e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

The proposed Project is a landfill closure/post-closure project which will improve the existing storm water drainage system upon the application of PPM to reduce erosion. Water use would be limited for the purpose of soil compaction and dust suppression on access roads. As discussed in the response to question 9(a), the Project will comply with NPDES requirements and would not result in significant impacts related to additional sources of polluted runoff; therefore, the Project would not create substantial sources of polluted run-off or result in exceeding storm water drainage system capacity.

FINDING: Less Than Significant Impact

9f. Otherwise substantially degrade water quality?

Construction activities related to the proposed Project could introduce pollutants, such as gasoline and oil from accidental spills from construction equipment and vehicles in addition to potential sediment. As discussed in the response to question 9(a), as part of the development of the proposed Project, a SWPPP, in compliance with the NPDES's new Construction General Permit (CGP) as mentioned above, would be prepared, to ensure the

proper application of BMPs is enforced to reduce the degradation of water quality. Therefore, impacts would be less than significant.

FINDING: Less Than Significant Impact.

9g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The Flood Insurance Rate Map¹⁰ identifies flood hazard areas as Special Flood Hazard Area (SFHA). These areas (SFHA) are defined as areas that would be inundated by a 100-year flood or a flood with a 1-percent chance of occurring. Areas of minimal flood hazard, which are areas outside the SFHA and higher than the 0.2-percent-annual-chance flood, are labeled Zone C or Zone X.

According to the Flood Insurance Rate Map for the Project area, the site falls within two mapping areas, Map No. 06065C2950G, (revised August 28th, 2008) which covers the western half of the Mecca II Landfill, and Map No. 06065C2975G which covers the eastern half of the Mecca II Landfill. Both maps show the Project site to be designated as Zone D- an area in which flood hazards are undetermined, but possible. However, it is outside of the special flood hazard area subject to inundation by the 1% annual chance of flood. Furthermore, there is no housing located on the Project site nor is housing proposed as part of Project implementation. As such, no housing will be placed within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map.

FINDING: No Impact Identified

9h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

As stated in the previous section 9(g), the proposed Project is outside the special flood hazard area subject to inundation by the 1% annual chance of flood. Furthermore, the proposed Project does not propose erected structures (buildings, concrete or masonry block units etc.) that would significantly impede or redirect flood flows.

The Project components would include the application of borrow soil to the entire landfill surface; the application of PPM and other green waste material for erosion control and the construction of drainage structures to direct storm flows into the eastern soil borrow pit area or western-most low point on site. The proposed concrete pad, where the ACAS will be installed during Phase 2, is approximately 20 feet by 11 feet and the cover for the ACAS is approximately 6 feet in length and 8.5 feet high, with a corrugated metal sheeting roof. The entire ACAS system will be fenced in with a perimeter chain link fence and would not

¹⁰ Federal Emergency Management Agency, Flood Insurance Rate Maps, Community Panel No 2950, Map No. 06065C2950G and Community Panel Nos. 2975, Map No. 06065C2975G

impede storm flows or cause flooding in the Project area, due to the small scale of the enclosure and ACAS unit housed within it. Furthermore, as explained above, the Project site is outside of the special flood hazard area, and does not propose to build structures, other than the ACAS unit and enclosure as described, which would impede or redirect flood flows. Thus no impacts would occur as a result of Project implementation.

FINDING: No Impact Identified

9i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

The proposed Project is not located within an area susceptible to flooding as indicated in 9(g) above, the Project site is located in Flood Insurance Rate Map, Zone D, an area designated as undetermined for flood hazards, but possible. The proposed Project is a landfill closure and post-closure project with design features intended to reduce erosion during heavy rains and to reduce water ponding and flooding. The proposed Project does not propose any structures suitable for human habitation, therefore would not expose people or structures at a significant risk of loss, injury or death involving flooding. No impact is anticipated as a result of Project implementation.

FINDING: No Impact Identified

9j. Inundation by seiche, tsunami, or mudflow?

The Project is located approximately 87 linear miles from the Pacific Coast, precluding the possibility of significant impacts from a tsunami. The closest body of water is the Salton Sea approximately 3.2 miles where a potential seiche could occur. Furthermore, the Project site and Project vicinity is relatively flat and surrounded by farmland and flat desert terrain, thus mudflows are not of concern. There will be no impacts related to a seiche, tsunami or mudflow.

FINDING: No Impact Identified

10. Land Use and Planning

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigation an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Sources: Gapen M. Cross, et. al. (2011). Section on Community Cohesion and Neighborhood Characteristics. Perceived Neighborhood Disorder, Community Cohesion, and PTSD Symptoms Among Low-Income African Americans in an Urban Health Setting. American Journal of Orthopsychiatry. 2011, Vol. 81 No. 1, 31-37; Riverside County (1996) Riverside Countywide Integrated Waste Management Plan (CIWMP), dated September 1996, which was approved by the CIWMB on September 23, 1998; CVMSHCP (2017) Coachella Valley Multiple Species Habitat Conservation Plan, Mecca Hills/Orocopia Mountains Conservation Area Map.

10a. Physically divide an established community?

An established community is a group of people who live and have lived in the same area for a long period of time, exhibiting signs of neighborhood cohesion, typically characterized by engaging in cultural activities together, forming community interest groups, neighborhood associations and organizing community events during special events and holidays. Community and neighborhood cohesion can also be formed when families that have resided in these established neighborhoods for a long time, have family and friends located in distinct neighborhoods within the community and have a long-established sense of place and belonging to their city and neighborhood in which they live.

The proposed Project would consist of the full closure and post-closure of the Mecca II Landfill, an existing landfill that has been in operation since 1982. No signs of an established community exist in the surrounding area of the Project, since it is surrounded by farmland to the west/south/north-west and desert terrain to the east/north-east. The Project (closure of the landfill) would not physically divide an established community.

FINDING: No Impact Is Identified

10b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinances) adopted for the purpose of avoiding or mitigating an environmental effect?

The Mecca II Landfill property encompasses approximately 80 acres on 5 parcels. According to the Riverside County land use zoning map, the primary zoning designation surrounding the landfill property is W-2, Controlled Development areas. Other adjoining parcels are zoned as follows: A-1-20 (Light Agriculture with a 20-acre minimum lot size), A-2-20 (Heavy Agriculture with a 20-acre minimum lot size), W-2 (Controlled Development areas), W-1, (Watercourse Watershed & Conservation Areas), and R-R (Rural Residential). There are no occupied residences within 1,000 feet of the site. The nearest occupied residence is approximately .45 mile north-west of the landfill.

The surrounding land uses, are primarily agricultural and vacant (undifferentiated), with a few areas of rural residential and water conveyance facilities. Portions of the Torres Martinez Indian Reservation occupy parcels of land near the Mecca II landfill.

According to the Riverside County Land Use Map, the land use designation for the landfill property is PF (Public Facilities). The Mecca II Landfill property is surrounded by open vacant land to the north and northeast, (OS-RUR – Open Space Rural), and the Coachella Valley Canal on the northeast (OS-W–Open Space Water) and farmland to the south and southeast (AG – Agriculture).

The Project would involve two (2) phases; Phase 1 would involve activities associated with the construction of the final cover, which will require approximately 110,000 cubic yards of soil from onsite eastern and/or northern borrow areas; application of PPM over the final cover; and the construction of drainage structures to channel water down the landfill deck into low points on site or into the eastern borrow area. Phase 2 would involve the post-closure maintenance and monitoring of the landfill’s environmental systems. Groundwater monitoring wells already exist onsite and a gas collection system would only be installed if gas monitoring probes reach methane level concentrations of 5% rating or higher.

The Project, as described above does not propose any zoning or land use changes and is consistent with existing zoning (W-2, Controlled Development areas) and its land use designation (PF, Public Facilities), therefore, land use compatibility issues are not anticipated.

Countywide Integrated Waste Management Plan (CIWMP)

All solid waste projects must be consistent with the goals, policies, and programs of the Riverside Countywide Integrated Waste Management Plan (CIWMP), dated September 1996, which was approved by the CIWMB on September 23, 1998. The CIWMP, which is composed of a Summary Plan, Siting Element, Source Reduction and Recycling Element, Household Hazardous Waste Element, and Nondisposal Facility Element, was prepared in compliance with the Integrated Waste Management Act of 1989 (AB 939, et.seq.) for the

purpose of defining programs and policies to reduce waste disposal by 25 percent in 1995 and 50 percent (%) by 2000 through source reduction, recycling, and composting. As such, the CIWMP is primarily a planning and policy document for guiding the existing county-wide solid waste system forward to meet the AB 939 mandates. With respect to closed and inactive landfill sites, Policy 2-3 of the Siting Element states: “Comply with applicable local, state, and federal policies, laws, statues, and regulations in order to protect the public health and the environment from impacts from the solid waste disposal system.”

Since the Project will facilitate long-term maintenance of the landfill’s structural integrity by constructing a final landfill cover system, thus ensuring public health and protection of the environment, it is consistent with Policy 2-3 of the Siting Element of the CIWMP and compliant with post-closure maintenance requirements of Title 27.

Furthermore, while the Mecca II landfill will be closing, the Oasis landfill, also owned and operated by the RCDWR, is located approximately 15 miles from the Mecca II facility and has adequate disposal capacity to accept the approximate two (2) tons of waste received yearly at the Mecca II Facility. Therefore, there will be no impact related to the Siting Plan and the requirements for providing adequate disposal capacity.

FINDING: Less Than Significant Impact

10c. Conflict with any applicable habitat conservation plan or natural community conservation plan?

As discussed in detail in Section 4, Biology, question 4(f), the CVMSHCP is the habitat conservation plan and natural community conservation plan for the Project area and the surrounding area. It encompasses most of the Coachella Valley, see Figure 1-2: Plan Area, under Appendix C General Plan Exhibits and Other Sources. The Mecca II landfill Project is not located within a CVMSHCP conservation area. It is outside of the CVMSHCP Mecca Hills/Orocopia Mountains Conservation Area (nearest conservation area to the site) biological corridors and linkages for the movement of native habitat and is not within a reserve assembly. As a permittee to the CVMSCHP, the RCDWR will continue to meet its obligations under the CVMSHCP as they relate to the Project (seasonal pre-construction surveys). Therefore, the proposed Project would not conflict with provisions adopted in the CVMSHCP, or the Riverside County General Plan, which refers to the CVMSCHP for the protection of biological resources and compliance with habitat conservation plans or natural community conservation plans. A less than significant impact is anticipated.

FINDING: Less Than Significant Impact

11. Mineral Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Source: Riverside County General Plan (2015). Land Use Area Map.

11a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

The Surface Mining and Reclamation Act (SMARA) provides the standard method for classifying areas that may contain mineral resources of local or statewide importance. The Riverside County General Plan, does not designate the Mecca II site as Open Space-Mineral Resource (OS-MIN) which allows for mineral extraction and processing facilities designed on the basis of the Surface Mining and Reclamation Act (SMARA) of 1975 classification.

Therefore, no impact to mineral resources of value to the region and the residents of the state would occur as a result of the proposed Project.

FINDING: No Impacts Identified

11b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

The Project site is not located in an area where mining reclamation would occur. Thus the result of the loss of availability of a locally important mineral resource recovery site would not result from the implementation of this Project.

FINDING: No Impacts Identified

12. Noise

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Source: Riverside County Ordinance No. 847 (As Amended Through 847-1) An Ordinance of the County of Riverside Amending Ordinance No. 847 Regulating Noise

12a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or other applicable standards of other agencies?

Construction

The proposed Project consists of the construction of the landfill final cover, application of PPM over the final cover and the construction of drainage structures to channel water down the landfill deck into low points on site or into the eastern borrow area and the landfill's environmental system's installation, as needed, as part of the post-closure maintenance.

Construction activities would generate noise typically associated with this type of construction such as excavation, grading, and hauling of material. Construction noise levels would only be temporary and intermittent during construction depending on the nature or Phase of construction and when the activities are being performed.

The Riverside County General Plan and Ordinance No. 847, Regulating Noise, are utilized to address noise impacts from projects within Riverside County. Although public projects are not subject to Ordinance No. 847, and the proposed Project is not considered a noise-sensitive use (church/temple, school, hospital, senior home etc.), during construction, the Project will comply with the restrictions addressing construction hours contained within Ordinance No. 847.

The County of Riverside General Plan lists the following policies (enumerated in bold, followed by a consistency discussion) related to noise impacts which are applicable to the Mecca II landfill closure Project:

- N 1.4** Determine if existing land uses will present noise compatibility issues with proposed projects by undertaking site surveys.

The Project is not a land development project that would generate noise past the initial construction phase. Compatibility of land uses most aptly applies to land uses such as residential, commercial, or industrial, where people will live or work, paired with other land uses, that if incompatible (such as siting multifamily housing next to a commercial railroad hub) would result in noise impacts in conflict with Land Use Compatibility Matrix of the County of Riverside General Plan Noise Element. The Project, which will, upon completion result in less noise in its closure state than it did during its active state, will not result in noise incompatibility issues with surrounding uses.

- N 1.5** Prevent and mitigate the adverse impacts of excessive noise exposure on the residents, employees, visitors, and noise-sensitive uses of Riverside County.

There is no residential develop in the immediate vicinity of the Project area that could be affected by noise levels as a result of construction activities nor will the landfill be open for visitors during construction, outside of RCDWR employees or contractors visiting the site for work related visits. Several mitigation measures were developed to prevent and mitigate noise impacts on employees. With the implementation of the Project's mitigation

measures, noise impacts on employees are expected to be less than significant.

N 12.1 Minimize the impacts of construction noise on adjacent uses within acceptable practices.

There are no sensitive land uses adjacent to the Project site.

N 12.2 Ensure that construction activities are regulated to establish hours of operation in order to prevent and/or mitigate the generation of excessive or adverse noise impacts on surrounding areas.

Construction hours for the Project shall be in compliance with Ordinance No. 847 (see mitigation measure N-1 for specific hours).

N 12.4 Require that all construction equipment utilizes noise reduction features (e.g. mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

Mitigation measure N-2 specifically addresses this policy.

The proposed Project is consistent with applicable County policies and ordinances and will therefore, not result in significant noise impacts associated with inconsistency with the County General Plan policies or a violation of County Code.

Operation

Long-term operation of the proposed facility would not involve the use of any major stationary noise sources or activities. No impact would occur and no mitigation is required.

MITIGATION MEASURES:

- N-1 The Project construction manager, in accordance with Ordinance No. 847, shall limit construction activities to between the hours of 6:00AM and 6:00PM, during the months of June through September; and between the hours of 7:00AM to 6:00PM during the months of October through May.
- N-2 All equipment, fixed or mobile, used on site during Project activities shall be equipped with properly operating and maintained mufflers to the satisfaction of the Riverside County Environmental Health Department.
- N-3 The Project shall mandate that the construction contractor prohibit the use of music or sound amplification on the Project site during construction.
- N-4 Equipment operators and other facility personnel subject to excessive noise levels will be provided with hearing protection (i.e., ear plugs, etc.). Equipment operators are required to wear ear protection in open cabs.
- N-5 Contractor shall comply with RCDWR's Idling Policy, which states that no diesel on-road vehicle, equipment, or engine that is used for any Department operation in an off-road capacity may idle for more than five (5) consecutive minutes.

As shown, the Project is consistent with the County of Riverside General Plan. Although this Project is a public project and not subject to Ordinance No. 847, the Project will comply with the restrictions addressing construction hours as stated in the ordinance, and with implementation of mitigation measures N-1 through N-5, which include limiting construction hours, requiring equipment to be equipped with properly operating and maintained mufflers, requiring workers to wear hearing protection, and enforcing RCDWR's idling policy, impacts relating to excessive noise would be mitigated to less than significant.

FINDING: Less Than Significant Impact After Mitigation

12b. Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?

During the construction of the Project, standard construction equipment will be utilized to excavate soil from borrow areas, grade the slopes, and install erosion control material. Noise and vibration generated by the construction of the Project may increase; however, due to the temporary and short duration of varying phases of construction, limited amount of construction equipment, limited work space, restricted construction hours, and the distance from sensitive receptors (greater than .45 mile) , impacts resulting from ground-borne vibration or ground-borne noise would be less than significant.

FINDING: Less Than Significant Impact

12c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

The Project is expected to temporarily increase the landfill site's ambient noise levels during construction of the final cover, installation of the drainage structures, hauling of PPM material and application of the same. The increases in ambient noise levels and associated impacts are not expected to be significant because of the low level equipment use and temporal nature of the Project. Upon construction of the final cover and drainage structures, the Project site will function as a closed landfill, mainly reduced to the occasional mowing, and standard repairs and maintenance, with minimal noise associated during closed landfill activities therefore, the Project will not result in a substantial permanent increase in ambient noise levels in the Project vicinity.

FINDING: Less Than Significant Impact

12d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Construction of the landfill's final cover and drainage structures has the potential to be the most noise intensive phase of the Project. While noise levels will be greater than ambient conditions during Project construction, they would not be substantially greater or cause a significant impact relating to a temporary increase in ambient noise levels. This is primarily due to the lack of any sensitive receptors within the immediate Project vicinity (nearest is

approx. ½ mile). In addition, the short duration of the Project, noise attenuating devices on construction equipment, and limiting construction to daytime hours, would further reduce any potential for substantial temporary impacts to ambient noise levels to less than significant.

FINDING: Less Than Significant Impact

- 12e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

The Riverside County Airport Land Use Compatibility Plan Policy Document establishes policies applicable to land use compatibility planning in the vicinity of airports throughout Riverside County. The Project area falls outside of the area of influence for the Jacqueline Cochran Airport, the closest public use airport to the landfill, which is approximately 9.1 miles northwest from the Project site. The Project would not expose people residing or working in the Project area to excessive noise levels.

FINDING: No Impact Identified

- 12f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?**

The proposed Project is not located within the vicinity of a private airstrip that would expose people residing or working in the Project area to excessive noise levels. The nearest airport is a public use airport (Jacqueline Cochran Airport) located approximately 9.1 miles northwest from the Project site. The proposed Project would not expose people to excessive noise levels emitted from a private airstrip.

FINDING: No Impact Identified

13. Population and Housing

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Source: RCDWR (2017). Mecca II Sanitary Landfill. Joint Technical Document No. 11. Final Closure and Post-Closure Maintenance Plan. Project Description. December 2017.

13a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The Project does not propose a land use change, or propose new housing or business development. The Project consists of a landfill closure and post closure construction activities to include the construction of a final cover, the placement of processed green waste/palm material for erosion control, and the construction of drainage structures, and post closure maintenance and environmental systems monitoring. Additionally, the proposed Project does not propose new infrastructure, roads, rail, airports or any other type of infrastructure that would induce population growth. No impacts are identified.

FINDING: No Impact Is Identified

13b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

The Project would consist of a landfill closure and post closure construction activities to include the construction of a final cover, the placement of processed green waste/palm material for erosion control, and the construction of drainage structures, and post closure

maintenance and environmental systems monitoring. No housing units would be displaced as a result of the Project, nor necessitate the construction of replacement housing elsewhere. No impact is identified.

FINDING: No Impact Is Identified

13c. Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?

The proposed Project, landfill closure and post closure as explained in 13a and 13b would not result in any displacement of people or require replacement housing elsewhere.

FINDING: No Impact Is Identified

14. Public Services

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable services ratios, response time or other performance objectives for any of the public services:				
Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Source: RCDWR (2017). Mecca II Sanitary Landfill. Joint Technical Document No. 11. Final Closure and Post-Closure Maintenance Plan., Project Description. December 2017.

The proposed Project would involve two (2) phases. Phase 1 would involve activities associated with the construction of the final cover, which will require approximately 110,000 cubic yards of soil from onsite eastern and/or northern borrow areas; application of PPM over the final cover; and the construction of drainage structures to channel water down the landfill deck into low points on site or into the eastern borrow area. Phase 2 would involve the post-closure maintenance and monitoring of the landfill's environmental systems. Groundwater monitoring wells already exist onsite and a gas collection system would only be installed if gas monitoring probes reach methane level concentrations of 5% rating or higher. The proposed Project is not a growth inducing project that would necessitate parks or schools to accommodate a growth in population. It would not induce population growth as to necessitate new or altered government buildings including fire and police stations to accommodate population growth.

Fire protection?

The proposed landfill closure and post closure construction and maintenance activities would not have an effect upon, or result in, a need for new or altered fire protection services. The Project would not impact acceptable service ratios, response times, or performance objectives.

FINDING: No Impact Is Identified

Police protection?

The Mecca II landfill is fenced and implementation of the Project (closure and post closure of the landfill) will not have any impact on police services. The Project site will remain fenced and would not impact acceptable service ratios, response times, or performance objectives.

FINDING: No Impact Is Identified

Schools?

The Project is not a growth-inducing development; therefore, it will not generate additional students to the local school districts.

FINDING: No Impact Is Identified

Parks?

The Project is not a growth-inducing development; therefore, it will not generate the need for new parks to satisfy the city's open space requirements.

FINDING: No Impact Is Identified

Other public services/facilities?

Although the Project will generate some truck-haul traffic, the traffic level is not significant. In addition, the Mecca II Landfill site is surrounded by farmland to the west/south/north-west and desert areas to the east/north-east. The incoming traffic to the site would be limited to the equipment being hauled in at the start and end of the construction period and during the delivery of processed green waste and palm material. The total number of trips would not exceed 22 per day. Therefore, no adverse effects upon maintenance of public roads from the Project are expected.

FINDING: Less Than Significant Impact

15. Recreation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Source: RCDWR (2017). Mecca II Sanitary Landfill. Joint Technical Document No. 11. Final Closure and Post-Closure Maintenance Plan., Project Description. December 2017.

The proposed Project would involve two (2) phases. Phase 1 would involve activities associated with the construction of the final cover, which will require approximately 110,000 cubic yards of soil from onsite eastern and/or northern borrow areas; application of PPM over the final cover; and the construction of drainage structures to channel water down the landfill deck into low points on site or into the eastern borrow area. Phase 2 would involve the post-closure maintenance and monitoring of the landfill's environmental systems. Groundwater monitoring wells already exist onsite and a gas collection system would only be installed if gas monitoring probes reach methane level concentrations of 5% rating or higher. The proposed Project is not a growth inducing project that would increase the use of neighborhood or regional parks as a result of population growth and recreational facility usage. The proposed Project does not propose recreational facilities as part of the Project, nor would it not require the construction of new recreational facilities.

15a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The proposed Project will not induce population growth; therefore, it will not increase the demand for neighborhood or regional parks or other recreational facilities. Furthermore, neither the Project construction nor maintenance (post closure) will impact any recreational facilities.

FINDING: No Impact Is Identified

15b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The proposed Project will not result in a need for recreational opportunities. Therefore, it will not affect existing recreational opportunities for the residents in the area.

FINDING: No Impact Is Identified

16. Transportation and Traffic

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Alter waterborne, rail or air traffic?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycles, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Source: Riverside County General Plan (2015). Circulation Element, Chapter 4.

16a/b Conflict with an applicable plan, ordinance or policy establishing a measure of effectiveness for the performance of the circulation system; or conflict with an applicable congestion management program?

The Mecca II Landfill is located at the southeast corner of 66th Avenue and Garfield Street, the landfill site is accessed from 66th Ave where the landfill entrance gate is located. 66th Ave and Garfield are two-lane collector roads designed to convey traffic east/west and north/south, respectively, through the Project area intersection to roads of equal or similar classification or higher: in this particular case, HWY 111. There is no observable traffic on either road, as it is used very sparingly.

It is the policy of Riverside County to maintain a LOS "C" for all development proposals in any area of Riverside County not located within the boundaries of an Area Plan, as well as those areas located within the following Area Plans: REMAP, Eastern Coachella Valley, Desert Center and others. The proposed Project is located within the Eastern Coachella Valley Area Plan; see Eastern Coachella Valley Area Plan, in Appendix C, General Plan and Other Sources. When a project causes the existing traffic to exceed the level of service designated for that roadway, it is not consistent the policies and goals of the congestion management program and therefore would be considered a significant impact.

Level of Service (LOS) standards are used to indicate the quality of traffic flow on street or highway systems and the capacity of a roadway. LOS ranges from LOS "A" (free flow, little congestion) to LOS "F" (forced flow, extreme congestion). From visual observation of the Project area intersections, 66th Ave/Box Canyon Road and Garfield Street operate at acceptable Levels of Service during the peak hours for existing traffic conditions.

Consistent with County of Riverside guidelines, an impact is considered significant if the proposed Project causes an intersection to drop below the target Levels of Service as described above.

Multimodal

There are no bus routes that service the surrounding area, or designated bikeways or pedestrian circulation. The multimodal circulation system would not be impacted by the proposed Project.

Traffic Analysis

The proposed Project would only consist of the construction of the landfill's final cover; placement of PPM; construction of drainage structures during Phase 1 and post closure maintenance and environmental systems monitoring during Phase 2. The construction phase of the proposed landfill closure will involve equipment deliveries and construction workers traveling to and from the site. However, the increase in worker trips would not last for longer than the duration of the construction period (approximately 50 to 70 working days – worst-case scenario – assuming Phase 1 and Phase 2 occur successively), as such, would only result in a temporary increase in traffic from that of existing conditions.

Work Items 1-4 represents the greatest potential for Project generated vehicle trips,

because of the potential (while unlikely) for overlap of all four work items which includes initial set up (mobilization), excavation of borrow material for the final cover, and the application of erosion control. Vehicle trips associated with this worst case scenario include delivery of equipment using flatbed trucks, worker trips, water truck trips, and delivery of PPM. Table T-1 presents the worst case traffic analysis for daily trips, peak hour trips, as well as the typical daily/typical peak hour¹¹.

**Table T-1
Traffic Analysis**

A. Worst Case Daily Traffic Analysis for Work Items 1-4			
	Daily Total Trips	PCE Factor	Trips in PCE
Workers	5	1	5
Flatbed trucks	5	2	10
Water truck	20	1.5	30
PPM delivery	6	2	12
			57
B. Typical Daily Traffic Analysis for Work Items 1-4			
	Typical Daily Trips	PCE Factor	Trips in PCE
Workers	5	1	5
Water trucks	20	1.5	30
PPM delivery	4	2	8
			43
C. Worst Case Peak Hour Traffic Analysis for Work Items 1-4			
	Peak Hour Trips	PCE Factor	Trips in PCE
Workers	5	1	5
Flatbed trucks	5	2	10
Water truck	4	1.5	6
PPM delivery	2	2	4
			25
D. Typical Peak Hour Traffic Analysis for Work Items 1-4			
	Peak Hour Trips	PCE Factor	Trips in PCE
Workers	5	1	5
Water truck	4	1.5	6
PPM delivery	2	2	4
			15

1. AM peak hours 7:00 am- 9:00 am; PM peak hours 4:00 pm to 6:00 pm.
2. For sections C & D, AM peak hour trips are shown and represent the worst case. PM peak hour trips are less in every instance due to the lack of flatbed deliveries; as such, the PM peak hour trips are not shown.
3. Sections A and C are only expected to last for 2-3 days, with the typical daily vehicle trips shown under sections C&D.

As shown in Table T-1, the proposed Project would generate a negligible number vehicle

¹¹ The typical day/typical peak hour analysis does not include the flatbed trucks used for initial mobilization/Project set up, since this activity will last only 2-3 days.

trips under the worst case peak hour scenario- 25 trips. For perspective, the minimum peak hour trips required for completion of a Traffic Impact Study in Riverside County¹² is 100. Due to the remoteness of the Project site, the existing free-flowing traffic conditions, short duration of Project construction, and the negligible amount of vehicle trips from the Project, there would be no significant impacts to the level of service standards and travel demand measures, or other standards established by the County of Riverside relating to traffic/transportation.

Conclusion

The Project will not result in a significant increase in vehicle trips or cause traffic congestion. Traffic within Project area intersections (66th Ave/Box Canyon Road and Garfield St.) is very minimal, mainly confined to farm workers using Garfield St. north and southbound as traffic is distributed south or west of the landfill since the Coachella Valley Canal divides the surrounding area between farmland to the west/north-west and desert, mountainous terrain to the east/north-east. Therefore, impacts associated with the performance of the circulation system will be less than significant.

FINDING: Less Than Significant Impact

16c. Alter waterborne, rail or air traffic?

The Project area is not located in an Airport Master Plan and will not require review by the Airport Land Use Commission. The proposed Project involves construction and maintenance activities associated with the landfill closure and post closures of the Mecca II landfill, which include the construction of the landfill's final cover, the construction of drainage structures and the placement of PPM for erosion control. The post-closure activities are limited to environmental monitoring of ground water, and monitoring of landfill gas, and other housekeeping activities: mowing of weeds, and monthly inspections etc.

Haul trucks shall comply with standard procedures for loading, unloading, and hauling material. Loads will be properly covered and secured, in accordance with all applicable motor vehicle codes. Rail, waterborne and air traffic will not be altered as a result of the proposed Project.

FINDING: Less Than Significant Impact

16d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The Project is a landfill closure and post-closure project and will not involve design features to existing roads on site or surrounding intersections that would result in hazards to vehicular traffic on roadways.

¹² Riverside County Transportation Department. Traffic Impact Analysis Preparation Guide (2008)

The Project will utilize 66th Ave as the main haul route for PPM from the Coachella Valley Compost Facility. The use of 66th Ave will be limited in duration, only twelve (12) days where the deliveries will be spread out throughout the twelve (12) day construction period.

As described in mitigation measures T-1 through T-3, appropriate truck traffic signs will be provided, and when necessary, flagmen will be provided as well as inspection at the entrance to the site off 66th Ave. for signs of track-out debris or litter fallout. These mitigation measures will reduce the hazards due to surrounding farmland (farm equipment) to less than significant.

MITIGATION MEASURES:

- T-1 Where necessary, flagmen shall be provided by the contractor at critical locations to direct/separate general traffic and truck traffic to ensure safety.
- T-2 At the end of the work day, the contractor shall inspect the residential haul route for debris or litters fall-out from the hauling trucks. All dropped debris and litters shall be picked up and removed from the neighborhood.
- T-3 When warranted, the contractor shall clean up the dirt track-out created by the Project's vehicles on 66th Ave. at the end of the work day.

FINDING: Less Than Significant Impact After Mitigation

16e. Result in inadequate emergency access?

The Project site has one main access point: the entrance at 66th Ave, on the north side of the site. The Project does not involve any changes to the site entrance that would impede or result in inadequate emergency access. No impact is anticipated.

FINDING: No Impact Is Identified

16f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

There are no designated bike lanes or pedestrian trails located in the vicinity of the Mecca II landfill. Alternative transportation policy does not apply to the Project. No impacts are identified and no mitigation will be required.

FINDING: No Impact Is Identified

17. Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p> <p>a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or</p> <p>b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Sources: RCDWR (2017). Mecca II Sanitary Landfill. Joint Technical Document No. 11. Final Closure and Post-Closure Maintenance Plan., Project Description. December 2017; AB 52 Correspondence Letters from Local Native American Tribes.

17a. Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

Determining the significance of a tribal cultural resource is deferred to the local tribes who claim ancestral territory surrounding the Project site. This is done because local tribes have unique insight and expertise as to the significance of sites, features, places, objects, and landscapes with cultural value to the California Native American Tribes. To that effect, in compliance with AB 52, the RCDWR provided notification (May, 30 2017) of the Project to requesting Tribes: Torres Martinez, Twenty-Nine Palms, Soboba, Ramona, Cahuilla, Colorado River Indian Tribe, and Quechan Indian Nation. No formal consultation was

requested by any of the tribes. AB 52 notification letters can be found in Appendix B, AB 52 Notification. There were no concerns raised regarding known tribal cultural resources in the Project area or in the direct vicinity of the Project area, or concerns over any known¹³ site(s) with potential tribal cultural value. However, in the unlikely event of accidental discovery of an archaeological resource(s), the mitigation measures CR-1 and CR-2 would be implemented.

FINDING: No Impact Is Identified

- 17b. Is the resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision © of Public Resources Code (PRC) Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

The RCDWR, as the Project proponent, after consultation with the local Native Tribes with ancestral territorial jurisdiction within the Project area has determined that there are no significant tribal cultural resources within the Project footprint or in the immediate surrounding area.

Site reconnaissance; Project activity history; and the Tribal notification (AB 52) letters and the responses received or lack thereof, provide sufficient evidence that the discovery of a Tribal cultural resource is very unlikely. Furthermore, the Project has been an active landfill; accepting solid waste for disposal since 1982 and does not contain any features deemed historical as defined in §15064.5 of the State CEQA guidelines, i.e., object, building, structure, site, area, place, record etc. associated with events, or the lives of important persons important in our past. No significant impact is anticipated.

FINDING: No Impact Is Identified

¹³ Existing law establishes the Native American Heritage Commission and vests the commission with specified powers and duties. One of those duties is to identify and catalog places of special religious or social significance to Native Americans, and known graves and cemeteries of Native Americans on private lands.

18. Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Source: RCDWR (2017). Mecca II Sanitary Landfill. Joint Technical Document No. 11. Post-Closure Maintenance Plan, Project Description. August 2017.

18a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

The proposed Project involves construction and maintenance activities associated with the landfill closure and post closures of the Mecca II landfill, which include the construction of the landfill's final cover, the construction of drainage structures and the placement of processed green waste/palm material for erosion control. The post-closure activities are limited to environmental monitoring of ground water, and monitoring of landfill gas, and other housekeeping activities; mowing of weeds, and monthly inspections.

Furthermore, the Mecca II closure and post closure Project is not a development project, with land uses that would necessitate wastewater treatment services. Therefore, it wouldn't exceed applicable Regional Water Quality Control Board wastewater treatment requirements.

FINDING: No Impact Is Identified

18b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The proposed Project involves construction and maintenance activities associated with the landfill closure and post-closure of the Mecca II Landfill, which include the construction of the landfill's final cover, the construction of drainage structures and the placement of processed green waste/palm material for erosion control. The post-closure activities are limited to environmental monitoring of ground water, and monitoring of landfill gas, and other housekeeping activities; mowing of weeds, and monthly inspections. The proposed Project would not necessitate wastewater treatment services, and therefore would not require or result in the construction of new water or waste water treatment facilities. No impact would occur as a result of the proposed Project.

FINDING: No Impact Is Identified

18c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The proposed Project would construct drainage structures to allow storm water to be conveyed from the top deck of the landfill, the road benches, and landfill slopes through drainage structures around the toe of the landfill slope, and either drain the water to the eastern borrow pit area or western-most low points on site. As the Project will not generate additional storm water (not increasing impervious surfaces) and because of the dry, arid climate, any precipitation would likely continue to remain on-site. No new or expanded storm water facilities would be required as a result of the Project.

FINDING: No Impact Is Identified

18d. Have sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed?

Water for Project construction will be obtained from either an off-site municipal source or a 10,000 gallon water tower installed onsite supplied with irrigation water from the Coachella Valley Canal. If irrigation water is unavailable, the RCDWR's contractor will employ the use of the nearest water hydrant, and obtain a temporary construction hydrant meter from the local water district. A 4,000 gallon water truck will be utilized during construction, and it is estimated that approximately 15-20 truckloads of water will be used daily for dust suppression and moisture conditioning during final cover application. Since there is no operational phase (construction only), there is no need for an on-going water source related to the Project. Water needs for the Project are negligible and based on the Project size and limited construction period, sufficient water supplies are available for construction purposes. No new water entitlements, or expansion of entitlements are required.

FINDING: No Impact Is Identified

18e. Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The Project does not require waste water treatment and would not increase the demand for wastewater treatment services. No impacts are identified.

FINDING: No Impact Is Identified

18f/g Be served by a landfill system with sufficient permitted capacity to accommodate the project's solid waste disposal needs; Comply with federal, state, and local statutes and regulations related to solid waste?

The proposed Project itself is an active landfill that will undergo the full closure process. The closure and post-closure construction and maintenance will not generate additional waste, not already landfilled, as to necessitate solid waste disposal needs.

During construction, the proposed Project will not generate significant amounts of solid waste as to exceed local landfill capacity. Therefore, the Project will not result in a need for new solid waste systems, or substantial alterations to existing solid waste disposal system. Furthermore, the Project itself is a direct result of compliance with state and local statutes and regulations regarding solid waste.

FINDING: No Impact Is Identified

19. Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulative considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Sources: RCDWR (2017). Mecca II Sanitary Landfill. Joint Technical Document No. 11. Final Closure and Post-Closure Maintenance Plan., Project Description. December 2017; RCIP, Existing Setting Report, Table 4.2.E – Generalized Natural Communities of Eastern Riverside County; CVMSHCP Plan Area Map; AB 52 Correspondence Letters from Local Native American Tribes.

18a Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

As indicated in the preceding analysis, through Project design, adherence to standard regulatory practices and compliance with proposed mitigation measures as listed throughout this document, no significant impacts are expected to occur. As such, implementation of the Project would not degrade the quality of the environment, reduce the habitat of fish or wildlife species or cause their population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of major periods of California history or prehistory. Therefore, the impact is considered less than significant.

FINDING: Less Than Significant Impact

18b Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulative considerable” means that the incremental effects of a project are considerable when viewed in connection with effects of past projects, the effects of other current projects, and the effects of probable future projects)

Due to the Project’s size and temporal nature (no on-going/operational impacts), in addition to Project mitigation and design features, there are no impacts that are cumulatively considerable as it relates to past, current, or probable future projects.

FINDING: Less Than Significant Impact

18c Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

The Project would involve the final closure and post-closure maintenance of the Mecca II Landfill. As explained in this analysis the Project would be divided in two (2) phases. Phase 1 would involve activities associated with the construction of the final landfill cover, which will require approximately 110,000 cubic yards of soil from onsite eastern and/or northern and eastern borrow areas; application of PPM over the final cover to control and reduce erosion; and the construction of drainage structures to channel water down from the landfill deck into western-most low points on site or into the eastern borrow pit area. Phase 2 would involve the post-closure maintenance and monitoring of the landfill’s environmental systems.

The Project is not anticipated to have an adverse effect on human beings directly or indirectly. The final cover system is designed to reduce erosion, and water ponding, and to protect the integrity of the landfill cover as to prevent buried solid waste from becoming exposed. The ACAS control system would capture NMOC emissions from MSW landfills, in compliance with AQMD Rule 1150.1 to prevent public nuisance.

Therefore, the Project mitigates the potential for substantial adverse effects to both humans and wildlife natural habitat. As assessed in this EA, no substantial adverse environmental effects on human beings, directly or indirectly, are anticipated to occur as a result of this Project.

FINDING: Less Than Significant Impact

Summary of Mitigation Measures

The following environmental factors are determined to have *A Less than Significant Impact After Mitigation*: Biological Resources, Cultural Resources, Noise, Transportation and Traffic.

Biological Resources

BIO-1 In order to avoid impacts to nesting birds protected by the Migratory Bird Treaty Act (MBTA) and State Fish and Wildlife Codes, removal of vegetation or any other potential nesting bird habitat should be conducted outside of the avian nesting season (February 1st through August 31st) if practical. If habitat must be cleared during the nesting season, a preconstruction nesting bird survey shall be conducted by a qualified biologist. If nesting activity is observed, appropriate avoidance measures shall be adopted to avoid any potential impacts to nesting birds.

Cultural Resources

CR-1 If subsurface cultural resources are encountered during any excavation, or if evidence of an archaeological site or other suspected historic resources are encountered, all ground disturbing activity will cease within 100 feet of the resource. A qualified archaeologist will be retained by the operator to assess the find, and to determine whether the resource requires further study. Additionally, any potentially significant cultural resource(s), discovered on site shall require notification to the seven (7) requesting Tribes under AB 52. Potentially significant cultural resources could consist of, but are not limited to, stone, bone, fossils, wood or shell artifacts or features, including structural remains, historic dumpsites, hearths and middens. Midden features are characterized by darkened soil, and could conceal material remains, including worked stone, fired clay vessels, faunal bone, hearths, storage pits, or burials and special attention should always be paid to uncharacteristic soil color changes. Any previously undiscovered resources found during construction should be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and evaluated by a qualified archaeologist retained by the County for significance under all applicable regulatory criteria.

CR-2 No further grading will occur in the area of the discovery until the County, along with the applicable Tribe(s), approves measures to protect the resources. Any archaeological artifacts recovered as a result of mitigation will either be donated to a qualified scientific institution approved by the County where they would be afforded long-term preservation to allow future scientific study or if the resource is determined to be a tribal cultural resource, then the final disposition of the resource shall require approval of applicable Tribes(s).

CR-3 In the event of an accidental discovery or recognition of any human remains, PRC Section 5097.98 must be followed. In this instance, once Project-related earthmoving begins and if there is accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps shall be taken:

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of

the cause of death is required. If the coroner determines the remains to be Native American, then the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" of the deceased Native American. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98, or;

2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendant or on the property in a location not subject to further subsurface disturbance:

The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission; the descendant identified fails to make a recommendation; or the landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the NAHC fails to provide measures acceptable to the landowner.

Noise

- N-1 Although not required as a public Project, the Project construction manager, in accordance with Ordinance No. 847, shall limit construction activities to between the hours of 6:00AM and 6:00PM, during the months of June through September; and between the hours of 7:00AM to 6:00PM during the months of October through May.
- N-2 All equipment, fixed or mobile, used on site during Project activities shall be equipped with properly operating and maintained mufflers to the satisfaction of the Riverside County Environmental Health Department.
- N-3 The Project shall mandate that the construction contractor prohibit the use of music or sound amplification on the Project site during construction.
- N-4 Equipment operators and other facility personnel subject to excessive noise levels will be provided with hearing protection (i.e., ear plugs, etc.). Equipment operators are required to wear ear protection in open cabs.
- N-5 Contractor shall comply with RCDWR's Idling Policy, which states that no diesel on-road vehicle, equipment, or engine that is used for any Department operation in an off-road capacity may idle for more than five (5) consecutive minutes.

Transportation and Traffic

- T-1 Where necessary, flagmen shall be provided by the contractor at critical locations to direct/separate general traffic and truck traffic to ensure safety.
- T-2 At the end of the work day, the contractor shall inspect the residential haul route for debris or litters fall-out from the hauling trucks. All dropped debris and litters shall be picked up and removed from the neighborhood.

T-3 When warranted, the contractor shall clean up the dirt track-out created by the Project's vehicles on 66th Ave. at the end of the work day.

Chapter 4

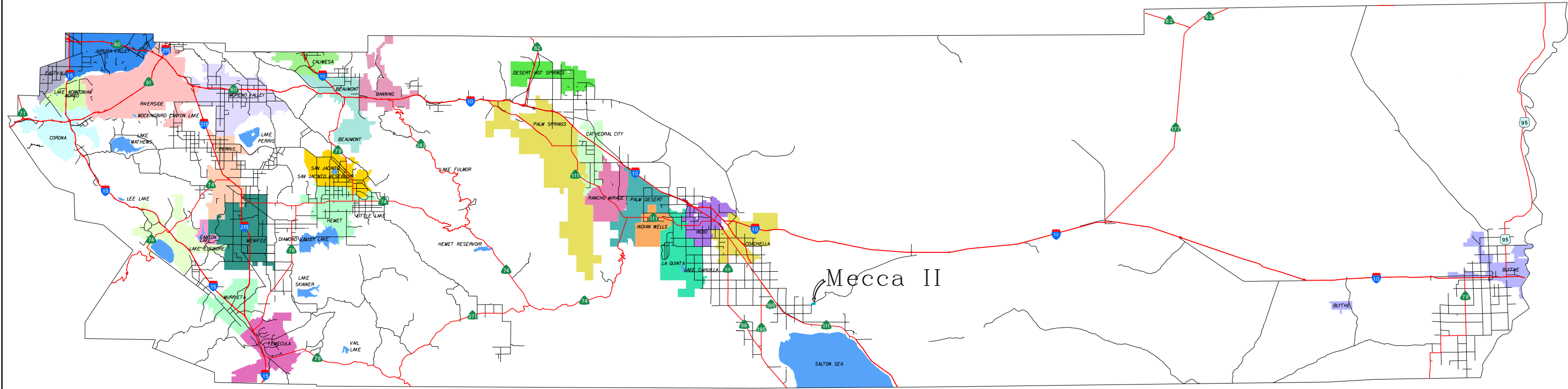
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Chapter 5

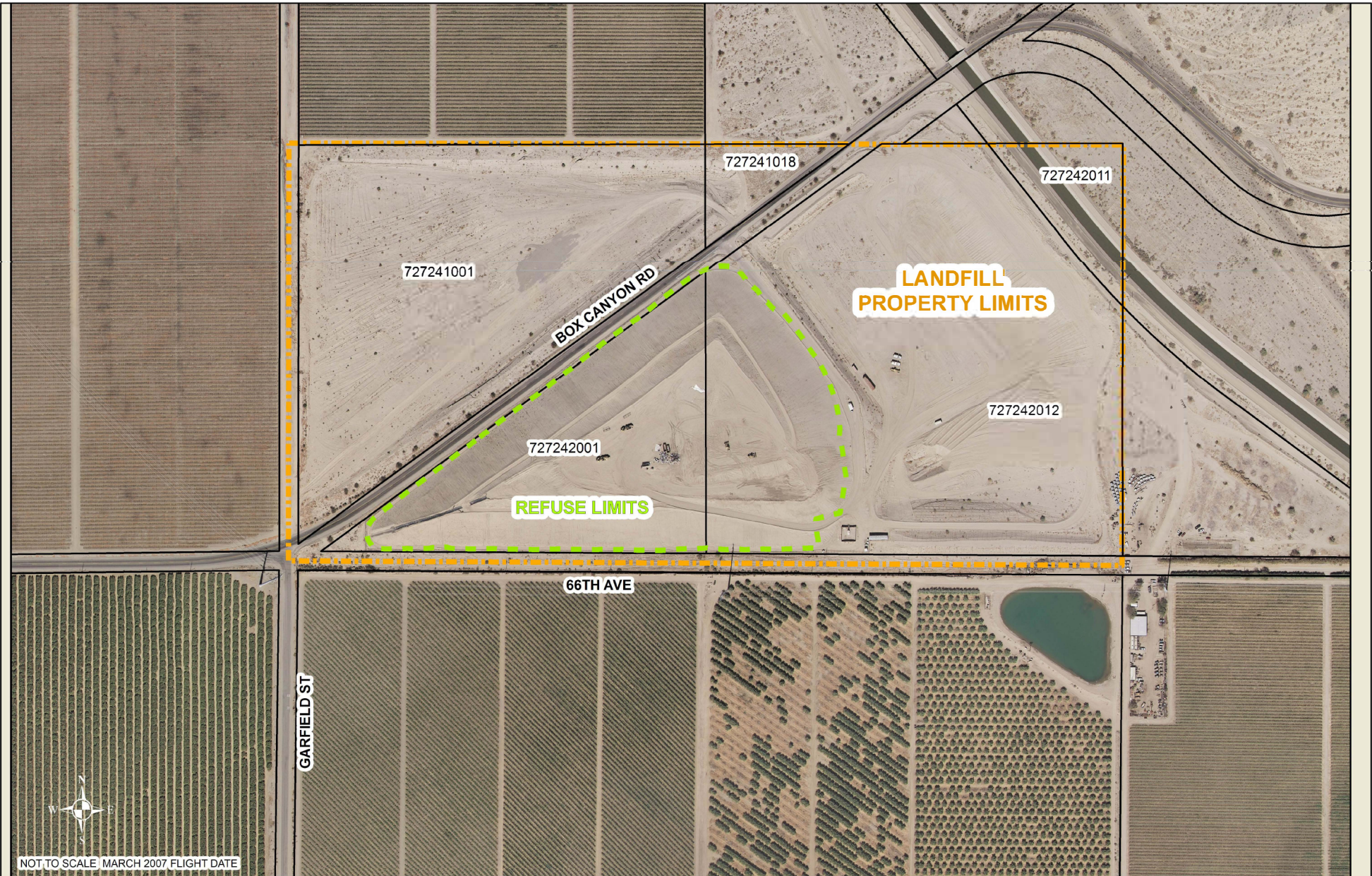
Figures



Regional Map

Figure 1

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Mecca II Sanitary Landfill

Site Map

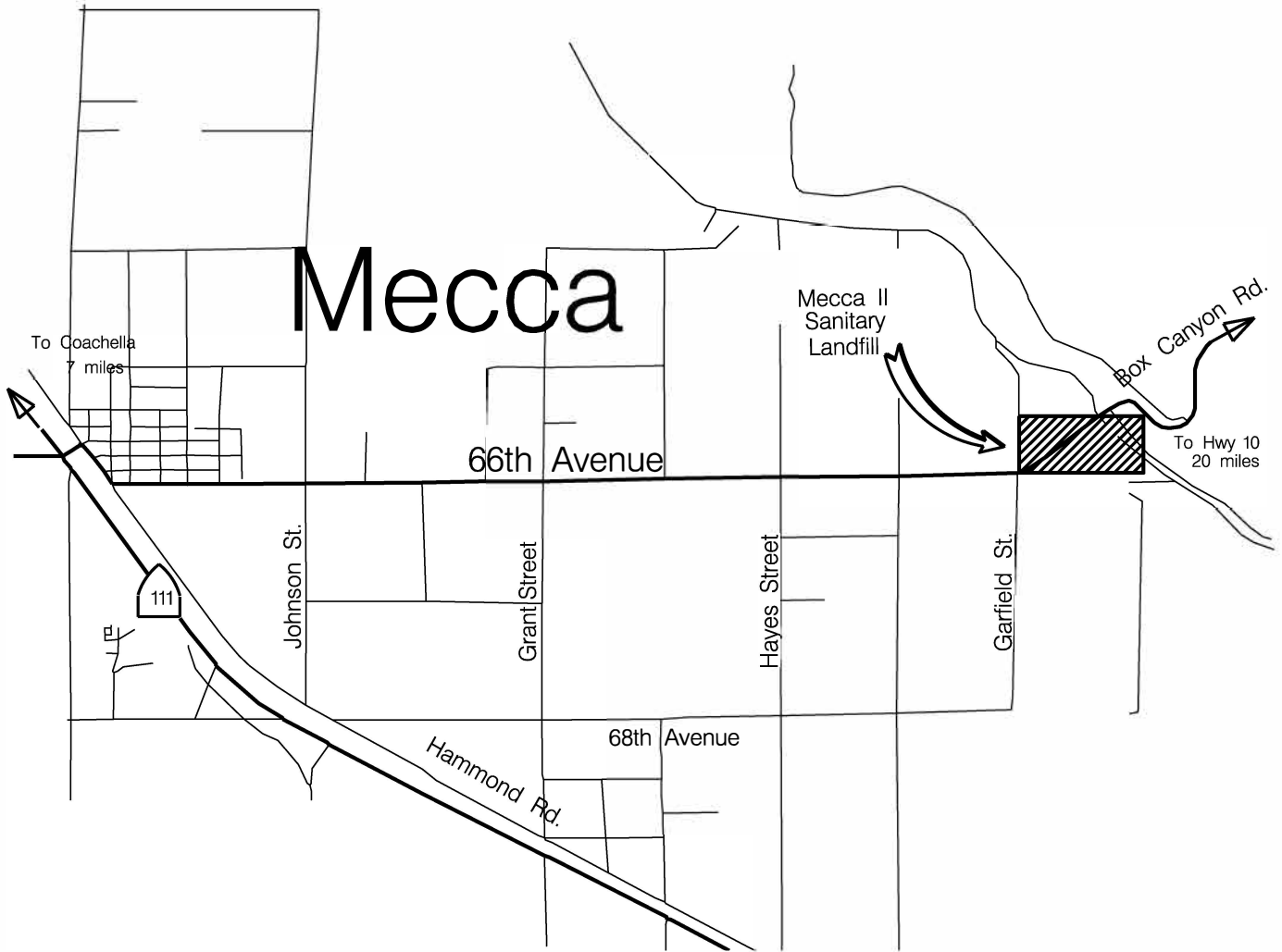
Figure 2

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Date: June 28, 2017

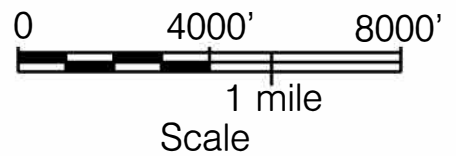
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Mecca II Sanitary Landfill Vicinity Map



Legend

- Paved Access Road 
- Other Roads 
- Sanitary Landfill 



Mecca II Sanitary Landfill

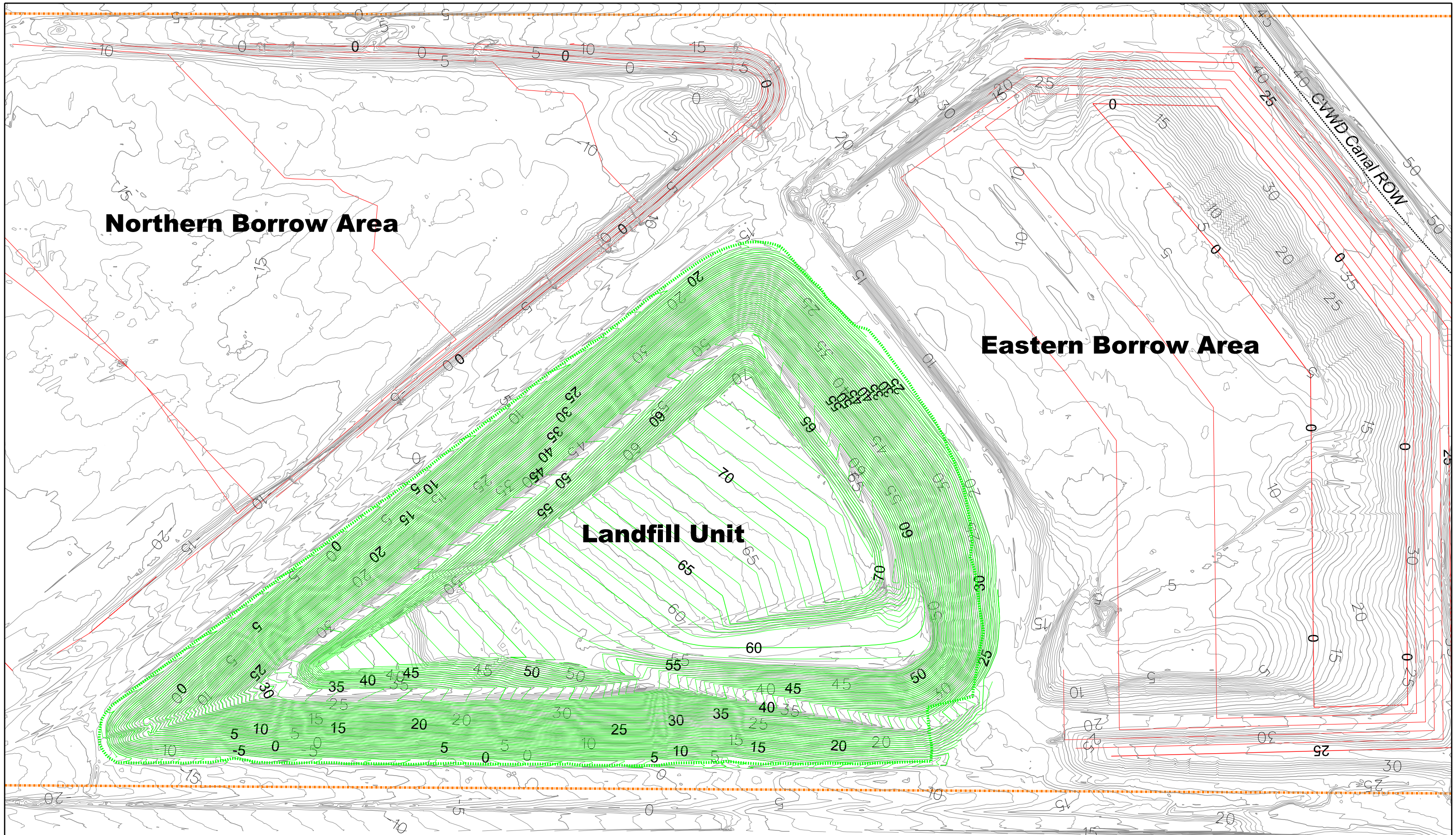
Vicinity Map

Figure 3

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Date: July 25, 2001

Scale: 1" = 4000'

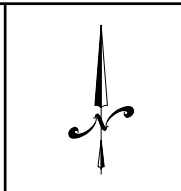


Northern Borrow Area

Eastern Borrow Area

Landfill Unit

Legend	
Existing Contours	Property Line
Final Refuse Cover Contours	Edge of Refuse (19 Acres)
Final Borrow Area Contours	



NO.	REVISIONS	BY	APPROVED	DATE

Scale: 1" = 150'

 Datum is mean sea level

DESIGNED BY:	ASA
DRAWN BY:	ASA
CHECKED BY:	JLG
DRAWING DATE:	December 2017
TOPO DATE:	May 2016
SCALE:	1" = 150'
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Mecca II Sanitary Landfill
Project Area
 Figure 4

Chapter 6

Appendices

APPENDICES

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Appendix B: AB 52 Notification Correspondence

Appendix C: General Plan Exhibits and Other Sources

Appendix D: Mecca II Landfill SWPPP

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Appendix A: Air Quality and Global Climate Change Impact Analysis

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KUNZMAN ASSOCIATES, INC.

MECCA II LANDFILL CLOSURE PROJECT

**AIR QUALITY AND GLOBAL CLIMATE CHANGE
IMPACT ANALYSIS**

September 29, 2017



MECCA II LANDFILL CLOSURE PROJECT

**AIR QUALITY AND GLOBAL CLIMATE CHANGE
IMPACT ANALYSIS**

September 29, 2017

Prepared by:

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I. INTRODUCTION AND SETTING

A. Purpose and Objectives

This study was performed to address the possibility of regional and local air quality impacts, global climate change impacts, and cancer risk from toxic air emissions. The objectives of the study include:

- documentation of the atmospheric setting
- discussion of criteria pollutants and greenhouse gases
- discussion of the air quality and global climate change regulatory framework
- discussion of the air quality and greenhouse gases thresholds of significance
- analysis of the construction-related air quality and greenhouse gas emissions
- analysis of the potential for construction-related cancer risk from diesel emissions
- recommendations for mitigation measures
- analysis of the conformity of the proposed project with the SCAQMD AQMP

The Riverside County Department of Waste Resources (RCDWR), on behalf of the County of Riverside, is the lead agency responsible for preparation of this air quality analysis, in accordance with the California Environmental Quality Act authorizing legislation. Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with terms unique to air quality and global climate change, a definition of terms has been provided in Appendix A.

B. Project Location

The project site is located at the existing Mecca II Landfill site at 95250 66th Avenue, Mecca in unincorporated Riverside County. The property encompasses approximately 80 acres which includes the public right-of-way for 66th Avenue, easements for the All American Canal, and a total of 19 acres for landfill disposal. Project site APNs include: 727-241-001, 727-242-001, 727-241-018, 727-242-012, and 727-242-011. A vicinity map showing the project location is provided on Figure 1.

C. Project Description

The proposed project is the closure of the Mecca II Landfill. The landfill will be closed permanently, and outside of normal maintenance (i.e., weed abatement or installation of environmental monitoring systems) the project will cease all active landfill operations. The proposed project includes two phases: the closure and the post closure maintenance of the Mecca II Landfill.

The closure of the landfill, Phase 1, would involve activities associated with the construction of the final landfill cover. This phase is to require approximately 100,000 cubic yards of soil from onsite borrow areas, application of erosion control material (i.e., green waste, processed palm, etc.), and the construction of concrete drainage structures on the landfill.

The project scope for Phase 1 would consist of seven work items:

Work Items 1 and 2 may overlap, since equipment may be delivered to the site as needed for final cover.

- Work Item 1: Mobilization (3 days)
 - Flatbed trucks will haul equipment to the site. Fencing near the disposal area will be temporarily removed to improve heavy equipment mobility around the southern and north-western facing slope.
 - Equipment:
 - Four (4) flatbed trucks
 - Four (4) workers/drivers (3 days)
- Work Item 2: Removal of Landfill Structures (1 day)
 - Work would consist of removing landfill structures (fee both). Gate fee will either be demolished or transported by a flatbed truck to another site.
 - Equipment:
 - One (1) Flatbed truck
 - Two (2) workers for eight (8) hours (1 day)

Work Items 3 and 4 may overlap, where cover material can be installed in areas where final cover is complete (work may also depend on cover material availability).

- Work Item 3: Final Cover (12 days)
 - Work includes soil excavation from borrow areas, and the placement of a 2-foot thick cover of soil over the disposal footprint. A total of 100,000 cubic yards of soil will be required.
 - Equipment:
 - One (1) Water Truck (4,000 Gallon)
 - Two (2) Dozers:
 - One (1) Cat D5H
 - One (1) Cat D8R
 - Two (2) Scrapers:
 - One (1) 657E
 - One (1) 623E
 - One (1) Rubber-Tired Dozer w/towable sheepfoot roller (Compactor)
 - One (1) Motorgrader, Cat 140H
 - Five (5) workers for eight (8) hours per day (12 days)
- Work Item 4: Erosion Control and Base Roads (12 days)
 - Application of erosion control material over the final cover. A total of 50 loads of material will be delivered from the Coachella Valley Compost (approximately 40 miles roundtrip) at the rate of approximately two (2) trips per day, per truck (2) for twelve (12) days. Two days will include 3 deliveries instead of two to complete the 50 truckloads in 12 days.
 - Equipment:
 - One (1) Dozer-D8R
 - Two (2) on-road 3-axle dump trucks.
- Work Item 5: Drainage Improvements (4 days)
 - Work would consist of constructing concrete drainage improvements.

- Equipment:
 - One (1) Backhoe, CAT 446B
 - Four (4) workers for eight (8) hours (4 days).
- Work Item 6: Site Security (1 day)
 - Reinstall fence.
 - Equipment:
 - One (1) Skid Steer with auger attachment
 - Two (2) workers for eight (8) hours (1 day)
- Work Item 7: Demobilization (3 days)
 - Remove equipment from the site.
 - Equipment:
 - Three (3) flatbed trucks
 - Three (3) workers (drivers) for eight (8) hours per day (3 days)

Phase 2 would involve the post-closure maintenance and monitoring of the landfill's environmental systems. Groundwater monitoring wells already exist onsite and a gas collection system would only be installed if gas monitoring probes detect methane level concentrations of 5% rating or higher. Therefore, Phase 2 does not involve any immediate construction as a landfill gas collection system would be dependent on methane levels reaching trigger levels of concentration.

While no immediate construction is anticipated, in the event landfill gas reaches 5% concentration or greater a landfill gas collection system would be installed. The gas collection system would consist of 10 to 12 vertical collection wells and a piping network to convey the gas to a blower that would most likely discharge to an activated carbon adsorption system.

The project scope for Phase 2 would consist of two work items:

- Work Item 1: Hole drilling and refuse extraction (3 days)
 - A bucket auger drill rig would be used to drill the vertical wells. A backhoe is used to scoop the refuse extracted from the holes and place it into roll off bins to be disposed of either directly to an open landfill or through a transfer station. Wells are constructed after casing is set.
 - Equipment:
 - One (1) Air Compressor
 - One (1) Dump Truck
 - One (1) Bucket auger drill rig
 - One (1) Backhoe for eight (8) hours per day (3 days)
- Work Item 2: Installation of piping network and construction of concrete pad and cover (7 days)
 - Placement of piping network and construct pad with a fence and cover to house the blower, condensate collection tank, and activated carbon vessel.
 - Equipment:
 - One (1) Backhoe
 - One (1) all-terrain forklift

As the project is a closure project, operational emissions (if any) would be sourced from intermittent maintenance and monitoring activities only. No operational criteria pollutant or greenhouse gas (GHG) emissions will be generated from the project, and as such, operational criteria pollutant and GHG analyses are not included in this report. Figure 2 illustrates the site plan.

D. Sensitive Receptors in Project Vicinity

For the purposes of a CEQA analysis, the SCAQMD considers a sensitive receptor to be a receptor such as a residence, hospital, or convalescent facility where it is possible that an individual could remain at the location for 24 hours. SCAQMD also considers land uses such as schools, child care centers, athletic facilities, and playgrounds to be sensitive receptors. Commercial and industrial facilities are not included in the definition of sensitive receptor because employees do not typically remain on-site for a full 24 hours, but are present for shorter periods of time, such as eight hours.

The nearest sensitive receptors to the project site are the single-family detached residential dwelling unit located approximately 0.45 miles northwest of the site and the single-family detached residential dwelling unit located approximately 0.87 miles southwest of the site. A mobile home park is located approximately 2.88 miles southwest of the site. In addition, single-family detached and multi-family attached residential dwelling units and Saul Martinez Elementary School are located approximately 3.05 miles to the west.

F. Executive Summary of Findings

Construction-Source Emissions

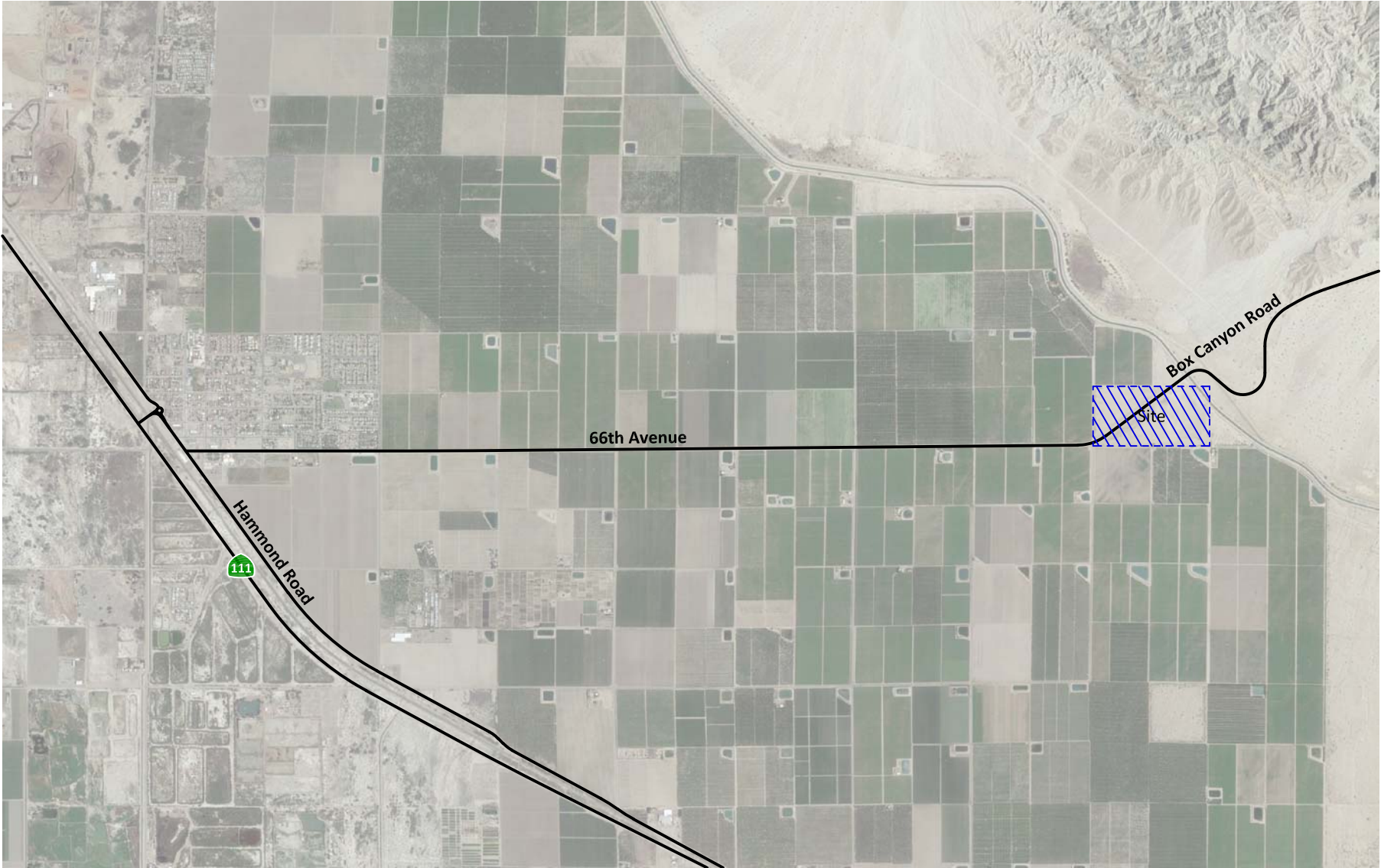
Project construction-source emissions would not exceed applicable regional thresholds of significance established by the SCAQMD. For localized emissions, the project will not exceed applicable Localized Significance Thresholds (LSTs) established by the SCAQMD.

Project construction-source emissions would not conflict with the Basin Air Quality Management Plan (AQMP). As discussed herein, the project will comply with all applicable SCAQMD construction-source emission reduction rules and guidelines. Project construction source emissions would not cause or substantively contribute to violation of the California Ambient Air Quality Standards (CAAQS) or National Ambient Air Quality Standards (NAAQS).

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction activities. Moreover, construction-source odor emissions would be temporary, short-term, and intermittent in nature and would not result in persistent impacts that would affect substantial numbers of people. Potential construction-source odor impacts are therefore considered less-than-significant.

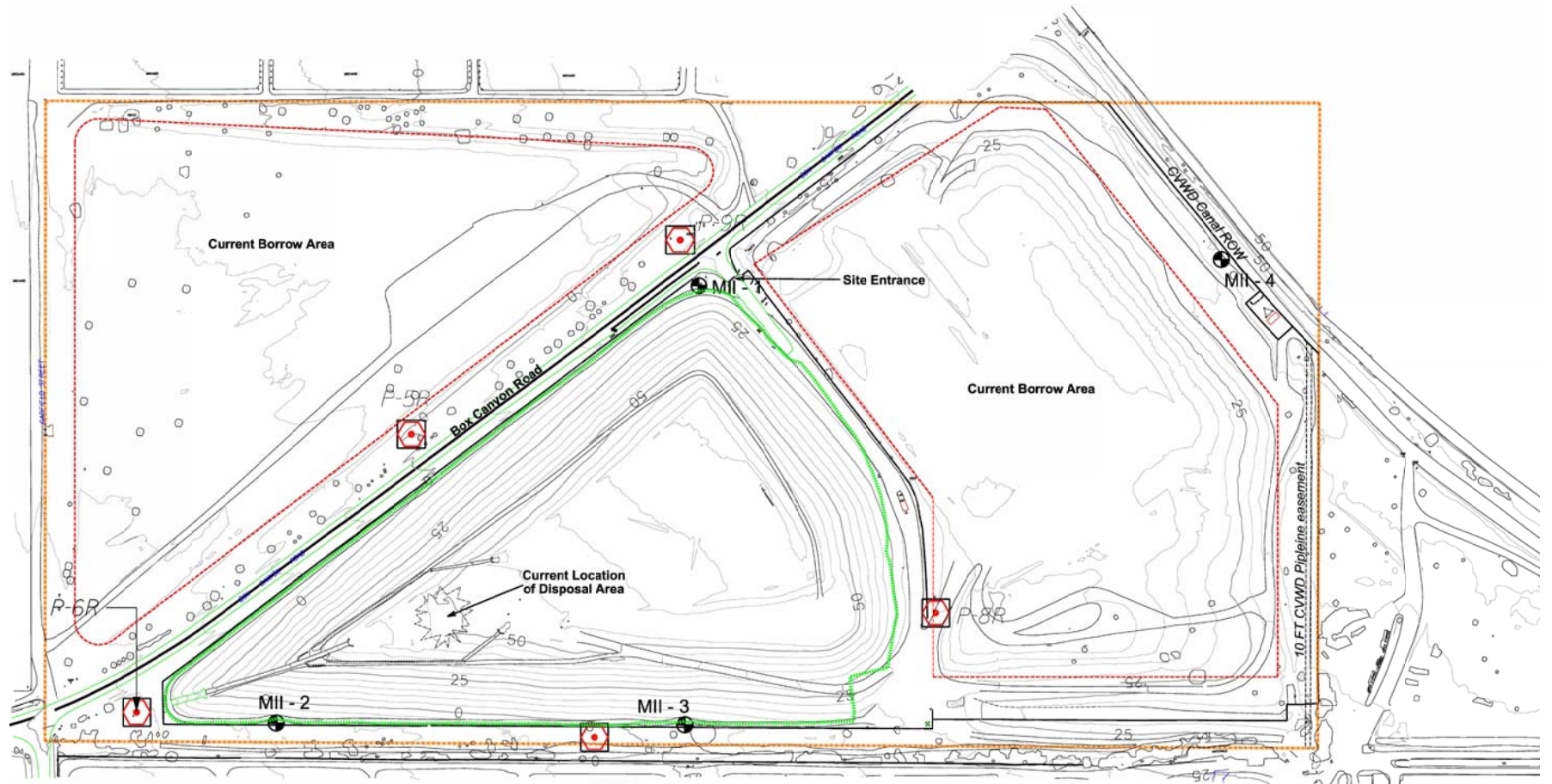
Construction-related GHG emissions are also considered to be less than significant and the project does not conflict with the goals of AB-32, SB-32, or the County of Riverside Climate Action Plan.

Figure 1
Project Location Map



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Figure 2
Site Plan



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II. ATMOSPHERIC SETTING

The project is located in the unincorporated community of Mecca in the County of Riverside and is within the Salton Sea Air Basin (SSAB). The middle part of Riverside County (between San Geronio Pass and Joshua Tree National Monument), belongs in the Salton Sea Air Basin (SSAB), along with Imperial County. Air quality conditions in this portion of the County, although in the SSAB, are also administered by the SCAQMD. The SCAQMD is responsible for the development of the regional Air Quality Management Plan and efforts to regulate pollutant emissions from a variety of sources.

The SSAB portion of Riverside County is separated from the South Coast Air Basin region by the San Jacinto Mountains and from the Mojave Desert Air Basin to the east by the Little San Bernardino Mountains. During the summer, the SSAB is generally influenced by a Pacific Subtropical High Cell that sits off the coast, inhibiting cloud formation and encouraging daytime solar heating. The SSAB is rarely influenced by cold air masses moving south from Canada and Alaska, as these systems are weak and diffuse by the time they reach the desert. Most desert moisture arrives from infrequent warm, moist and unstable air masses from the south. The SSAB averages between three and seven inches of precipitation per year.

The Coachella Valley is a geographically and meteorologically unique area wholly contained within the Salton Sea Air Basin. The region is currently impacted by significant air pollution levels caused by the transport of pollutants from coastal air basins to the west, primarily ozone, and locally generated PM10. The mountains surrounding the region isolate the Valley from coastal influences and create a hot and dry low lying desert (see Table 1). As the desert heats up it draws cooler coastal air through the narrow San Geronio Pass, generating strong and sustained winds that cross the fluvial (water caused) and aeolian (wind) erosion zones in the Valley. These strong winds suspend and transport large quantities of sand and dust, reducing visibility, damaging property, and constituting a significant health threat.

The City of Mecca, in relation to other areas in Southern California, has good air quality. In the past few decades, however, noticeable deterioration of air quality has occurred due to increased development and population growth, traffic, construction activity, and various site disturbances. It is apparent that although air pollution is emitted from various sources in the Coachella Valley, substantial degradation of air quality may be attributed primarily to sources outside of the Valley.

Table 1

Mecca Local Monthly Climate Data¹

Descriptor	Month of Year											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avg. Max. Temperature	71.6	76.5	82.8	89.6	97	104.2	108.6	107.7	103.1	92.7	77.5	71.1
Avg. Min. Temperature	39.9	43.5	49.2	54.8	62.3	68.5	75	75.4	68.5	57.7	44.9	39.1
Avg. Total Precipitation (in.)	0.61	0.52	0.31	0.06	0.02	0.02	0.08	0.21	0.21	0.30	0.28	0.48

¹ Source: <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca5502> (Data taken from the Mecca Fire Station).

III. POLLUTANTS

Pollutants are generally classified as either criteria pollutants or non-criteria pollutants. Federal ambient air quality standards have been established for criteria pollutants, whereas no ambient standards have been established for non-criteria pollutants. For some criteria pollutants, separate standards have been set for different periods. Most standards have been set to protect public health. For some pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions). A summary of Federal and State ambient air quality standards is provided in the Regulatory Framework section.

A. Criteria Pollutants

The criteria pollutants consist of: ozone, nitrogen dioxide, carbon monoxide, sulfur dioxide, lead, and particulate matter. These pollutants can be harmful to human health and the environment, and cause property damage. The Environmental Protection Agency (EPA) calls these pollutants “criteria” air pollutants because it regulates them by developing human health-based and/or environmentally-based criteria for setting permissible levels. The following provides descriptions of each of the criteria pollutants.

1. Nitrogen Dioxide

Nitrogen Oxides (NO_x) is the generic term for a group of highly reactive gases which contain nitrogen and oxygen. While most NO_x are colorless and odorless, concentrations of nitrogen dioxide (NO₂) can often be seen as a reddish-brown layer over many urban areas. NO_x form when fuel is burned at high temperatures, as in a combustion process. The primary manmade sources of NO_x are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuel. NO_x reacts with other pollutants to form, ground-level ozone, nitrate particles, acid aerosols, as well as NO₂, which cause respiratory problems. NO_x and the pollutants formed from NO_x can be transported over long distances, following the patterns of prevailing winds. Therefore controlling NO_x is often most effective if done from a regional perspective, rather than focusing on the nearest sources.

2. Ozone

Ozone is not usually emitted directly into the air but at ground-level is created by a chemical reaction between NO_x and volatile organic compounds (VOC) in the presence of sunlight. Motor vehicle exhaust, industrial emissions, gasoline vapors, chemical solvents as well as natural sources emit NO_x and VOC that help form ozone. Ground-level ozone is the primary constituent of smog. Sunlight and hot weather cause ground-level ozone to form with the greatest concentrations usually occurring downwind from urban areas. Ozone is subsequently considered a regional pollutant. Ground-level ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. Because NO_x and VOC are ozone precursors, the health effects associated with ozone are also indirect health effects associated with significant levels of NO_x and VOC emissions.

3. Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. It is a component of motor vehicle exhaust, which contributes about 56 percent of all CO emissions nationwide. In cities, 85 to 95 percent of all CO emissions may come from motor vehicle exhaust. Other sources of CO emissions include industrial processes (such as metals processing and chemical manufacturing), residential wood burning, and natural sources such as forest fires. Woodstoves, gas stoves, cigarette smoke, and unvented gas and kerosene space heaters are indoor sources of CO. The highest levels of CO in the outside air typically occur during the colder months of the year when inversion conditions are more frequent. The air pollution becomes trapped near the ground beneath a layer of warm air. CO is described as having only a local influence because it dissipates quickly. Since CO concentrations are strongly associated with motor vehicle emissions, high CO concentrations generally occur in the immediate vicinity of roadways with high traffic volumes and traffic congestion, active parking lots, and in automobile tunnels. Areas adjacent to heavily traveled and congested intersections are particularly susceptible to high CO concentrations.

CO is a public health concern because it combines readily with hemoglobin and thus reduces the amount of oxygen transported in the bloodstream. The health threat from exposure to low levels of CO is most serious for those who suffer from heart disease such as angina, clogged arteries, or congestive heart failure. For a person with heart disease, a single exposure to CO at low levels may cause chest pain and reduce that person's ability to exercise; repeated exposures may contribute to other cardiovascular effects. High levels of CO can affect even healthy people. People who breathe high levels of CO can develop vision problems, reduced ability to work or learn, reduced manual dexterity, and difficulty performing complex tasks. At extremely high levels, CO is poisonous and can cause death.

4. Sulfur Dioxide

Sulfur Oxide (SO_x) gases (including sulfur dioxide) are formed when fuel containing sulfur, such as coal and oil is burned, and from the refining of gasoline. SO_x dissolves easily in water vapor to form acid and interacts with other gases and particles in the air to form sulfates and other products that can be harmful to people and the environment.

5. Lead

Lead is a metal found naturally in the environment as well as manufactured products. The major sources of lead emissions have historically been motor vehicles and industrial sources. Due to the phase out of leaded gasoline, metal processing is now the primary source of lead emissions to the air. High levels of lead in the air are typically only found near lead smelters, waste incinerators, utilities, and lead-acid battery manufacturers. Exposure of fetuses, infants and children to low levels of lead can adversely affect the development and function of the central nervous system,

leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure.

6. Particulate Matter

Particulate matter (PM) is the term for a mixture of solid particles and liquid droplets found in the air. Particulate matter is made up of a number of components including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health problems. Particles that are less than 10 micrometers in diameter (PM10) are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. Particles that are less than 2.5 micrometers in diameter (PM2.5) have been designated as a subset of PM10 due to their increased negative health impacts and its ability to remain suspended in the air longer and travel further.

7. Volatile Organic Compounds (VOC)

Although not a criteria pollutant, reactive organic gases (ROGs), or VOCs, are defined as any compound of carbon—excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROGs and VOCs, the two terms are often used interchangeably. Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone (a criteria pollutant). VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM10 and lower visibility.

B. Other Pollutants of Concern

1. Toxic Air Contaminants

In addition to the above-listed criteria pollutants, toxic air contaminants (TACs) are another group of pollutants of concern. Sources of toxic air contaminants include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least forty different toxic air contaminants. The most important of these toxic air contaminants, in terms of health risk, are diesel particulates, benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Public exposure to toxic air contaminants can result from emissions from normal operations as well as accidental releases. Health effects of toxic air contaminants include cancer, birth defects, neurological damage, and death.

Toxic air contaminants are less pervasive in the urban atmosphere than criteria air pollutants, however they are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are hundreds of different types of

toxic air contaminants with varying degrees of toxicity. Sources of toxic air contaminants include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), and motor vehicle exhaust.

According to The California Almanac of Emissions and Air Quality 2013 Edition, the majority of the estimated health risk from toxic air contaminants can be attributed to relatively few compounds, the most important of which is diesel particulate matter (DPM). Diesel particulate matter is a subset of PM_{2.5} because the size of diesel particles are typically 2.5 microns and smaller. The identification of diesel particulate matter as a toxic air contaminant in 1998 led the California Air Resources Board (CARB) to adopt the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles in September 2000. The plan's goals are a 75-percent reduction in diesel particulate matter by 2010 and an 85-percent reduction by 2020 from the 2000 baseline. Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The visible emissions in diesel exhaust are known as particulate matter or PM, which includes carbon particles or "soot". Diesel exhaust also contains a variety of harmful gases and over 40 other cancer-causing substances. California's identification of diesel particulate matter as a toxic air contaminant was based on its potential to cause cancer, premature deaths, and other health problems. Exposure to diesel particulate matter is a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. Overall, diesel engine emissions are responsible for the majority of California's potential airborne cancer risk from combustion sources.

2. Asbestos

Asbestos is listed as a TAC by ARB and as a Hazardous Air Pollutant by the EPA. Asbestos occurs naturally in mineral formations and crushing or breaking these rocks, through construction or other means, can release asbestiform fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining. The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and with time may be linked to such diseases as asbestosis, lung cancer, and mesothelioma. Naturally occurring asbestos is not present in Riverside County. The nearest likely locations of naturally occurring asbestos, as identified in the General Location Guide for Ultramafic Rocks in California prepared by the California Division of Mines and Geology, is located in Santa Barbara County. Due to the distance to the nearest natural occurrences of asbestos, the project site is not likely to contain asbestos.

C. Greenhouse Gases

Constituent gases of the Earth's atmosphere, called atmospheric greenhouse gases (GHG), play a critical role in the Earth's radiation amount by trapping infrared radiation emitted from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO₂), methane (CH₄), ozone, water vapor, nitrous oxide (N₂O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable

climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Transportation is responsible for 41 percent of the State's greenhouse gas emissions, followed by electricity generation. Emissions of CO₂ and nitrous oxide (NO_x) are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO₂, where CO₂ is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean. The following provides a description of each of the greenhouse gases and their global warming potential.

1. Water Vapor

Water vapor is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. The feedback loop in which water is involved in is critically important to projecting future climate change. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to "hold" more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop". The extent to which this positive feedback loop will continue is unknown as there is also dynamics that put the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth's surface and heat it up).

2. Carbon Dioxide

The natural production and absorption of CO₂ is achieved through the terrestrial biosphere and the ocean. However, humankind has altered the natural carbon cycle by burning coal, oil, natural gas, and wood. Since the industrial revolution began in the mid 1700s. Each of these activities has increased in scale and distribution. CO₂ was the first GHG demonstrated to be increasing in atmospheric concentration with the first conclusive measurements being made in the last half of the 20th century. Prior to the industrial revolution, concentrations were fairly stable at 280 parts per million (ppm). The International Panel on Climate Change (IPCC Fifth Assessment Report, 2014) Emissions of CO₂ from fossil fuel combustion and industrial processes contributed about 78% of the total GHG emissions increase from 1970 to 2010, with a similar percentage contribution for the increase during the period 2000 to 2010. Globally, economic and population growth continued to be the most important

drivers of increases in CO₂ emissions from fossil fuel combustion. The contribution of population growth between 2000 and 2010 remained roughly identical to the previous three decades, while the contribution of economic growth has risen sharply.

3. Methane

CH₄ is an extremely effective absorber of radiation, although its atmospheric concentration is less than that of CO₂. Its lifetime in the atmosphere is brief (10 to 12 years), compared to some other GHGs (such as CO₂, N₂O, and Chlorofluorocarbons (CFCs)). CH₄ has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropogenic sources include fossil-fuel combustion and biomass burning.

4. Nitrous Oxide

Concentrations of N₂O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb). N₂O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant (i.e., in whipped cream bottles, in potato chip bags to keep chips fresh, and in rocket engines and in race cars).

5. Chlorofluorocarbons

CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C₂H₆) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs have no natural source, but were first synthesized in 1928. It was used for refrigerants, aerosol propellants, and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken. This effort was extremely successful, and the levels of the major CFCs are now remaining level or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

6. Hydrofluorocarbons

HFCs are synthetic man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF₃), HFC-134a (CF₃CH₂F), and HFC-152a (CH₃CHF₂). Prior to 1990, the only significant emissions were HFC-23. HFC-134a use is increasing due to its use as a refrigerant. Concentrations of HFC-23 HFC-134a are now about 10 parts per trillion

(ppt) each. Concentrations of HFC-152a are about 1 ppt. HFCs are manmade for applications such as automobile air conditioners and refrigerants.

7. Perfluorocarbons

PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). Concentrations of CF_4 in the atmosphere are over 70 ppt. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing.

8. Sulfur Hexafluoride

SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF_6 has the highest global warming potential of any gas evaluated; 23,900 times that of CO_2 . Concentrations in the 1990s were about 4 ppt. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

9. Aerosols

Aerosols are particles emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light. Cloud formation can also be affected by aerosols. Sulfate aerosols are emitted when fuel containing sulfur is burned. Black carbon (or soot) is emitted during biomass burning due to the incomplete combustion of fossil fuels. Particulate matter regulation has been lowering aerosol concentrations in the United States; however, global concentrations are likely increasing.

10. Global Warming Potential

The Global Warming Potential (GWP) was developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of carbon dioxide (CO_2). The larger the GWP, the more that a given gas warms the Earth compared to CO_2 over that time period. The time period usually used for GWPs is 100 years. GWPs provide a common unit of measure, which allows analysts to add up emissions estimates of different gases (e.g., to compile a national GHG inventory), and allows policymakers to compare emissions reduction opportunities across sectors and gases. A summary of the atmospheric lifetime and the global warming potential of selected gases are summarized in Table 2. As shown in Table 2, the global warming potential of GHGs ranges from 1 to 22,800.

Table 2**Global Warming Potentials and Atmospheric Lifetimes¹**

Gas	Atmospheric Lifetime	Global Warming Potential ² (100 Year Horizon)
Carbon Dioxide (CO ₂)	— ³	1
Methane (CH ₄)	12	28-36
Nitrous Oxide (NO)	114	298
Hydrofluorocarbons (HFCs)	1-270	12-14,800
Perfluorocarbons (PFCs)	2,600-50,000	7,390-12,200
Nitrogen trifluoride (NF ₃)	740	17,200
Sulfur Hexafluoride (SF ₆)	3,200	22,800

¹ Source: <http://www3.epa.gov/climatechange/ghgemissions/gases.html>

² Compared to the same quantity of CO₂ emissions.

³ Carbon dioxide's lifetime is poorly defined because the gas is not destroyed over time, but instead moves among different parts of the ocean-atmosphere-land system. Some of the excess carbon dioxide will be absorbed quickly (for example, by the ocean surface), but some will remain in the atmosphere for thousands of years, due in part to the very slow process by which carbon is transferred to ocean sediments.

IV. AIR QUALITY MANAGEMENT

A. Regulatory Setting

The proposed project is addressed through the efforts of various international, Federal, State, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality are discussed below.

1. International

Montreal Protocol

In 1988, the United Nations established the Intergovernmental Panel on Climate Change (IPCC) to evaluate the impacts of global climate change and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling GHG emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The plan consists of more than 50 voluntary programs.

Additionally, the Montreal Protocol was originally signed in 1987 and substantially amended in 1990 and 1992. The Montreal Protocol stipulates that the production and consumption of compounds that deplete ozone in the stratosphere—CFCs, halons, carbon tetrachloride, and methyl chloroform—were to be phased out, with the first three by the year 2000 and methyl chloroform by 2005.

The Paris Agreement

The Paris Agreement entered into force on 4 November 2016, thirty days after the date on which at least 55 Parties to the Convention accounting in total for at least an estimated 55 % of the total global greenhouse gas emissions have deposited their instruments of ratification, acceptance, approval or accession with the Depository.

The Paris Agreement builds upon the Convention and – for the first time – brings all nations into a common cause to undertake take ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so. As such, it charts a new course in the global climate effort.

The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change. To reach these ambitious goals, appropriate financial flows, a new technology framework and an enhanced capacity building framework will be put in place, thus supporting action by developing countries and the most vulnerable

countries, in line with their own national objectives. The Agreement also provides for enhanced transparency of action and support through a more robust transparency framework.

2. Federal - United States Environmental Protection Agency

The United States Environmental Protection Agency (EPA) is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the Federal government, such as aircraft, ships, and certain locomotives. The National Ambient Air Quality Standards (NAAQS) pollutants were identified using medical evidence and are shown below in Table 3.

The EPA and the California Air Resource Board (CARB) designate air basins where ambient air quality standards are exceeded as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or ‘form’ of what constitutes attainment, based on specific air quality statistics. For example, the Federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the Federal annual PM_{2.5} standard is met if the three-year average of the annual average PM_{2.5} concentration is less than or equal to the standard. Attainment status is shown in Table 4.

As part of its enforcement responsibilities, the EPA requires each State with Federal nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the national standards. The State Implementation Plan (SIP) must integrate Federal, State, and local components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the State Implementation Plan (SIP).

The proposed project is located within the Coachella Valley area of the Salton Sea Air Basin. As indicated below in Table 4, the Coachella Valley has been designated by the EPA as a non-attainment area for ozone (O₃) and suspended particulates (PM₁₀). Currently, the Coachella Valley is in attainment with the ambient air quality standards for carbon monoxide (CO), lead, sulfur dioxide (SO₂), nitrogen dioxide (NO₂), and particulate matter (PM_{2.5}).

In *Massachusetts v. Environmental Protection Agency* (Docket No. 05–1120), argued November 29, 2006 and decided April 2, 2007, the U.S. Supreme Court held that not only did the EPA have authority to regulate greenhouse gases, but the EPA's reasons for not regulating this area did not fit the statutory requirements. As such, the U.S. Supreme Court ruled that the EPA should be required to regulate CO₂ and other greenhouse gases as pollutants under the Federal Clean Air Act (CAA).

In response to the FY2008 Consolidations Appropriations Act (H.R. 2764; Public Law 110-161), EPA proposed a rule on March 10, 2009 that requires mandatory reporting of GHG emissions from large sources in the United States. On September 22, 2009, the Final Mandatory Reporting of GHG Rule was signed and published in the Federal Register on October 30, 2009. The rule became effective on December 29, 2009. This rule requires suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions to submit annual reports to EPA.

On December 7, 2009, the EPA Administrator signed two distinct findings under section 202(a) of the Clean Air Act. One is an endangerment finding that finds concentrations of the six GHGs in the atmosphere threaten the public health and welfare of current and future generations. The other is a cause or contribute finding, that finds emissions from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare. These actions will not themselves impose any requirements on industry or other entities. However, it is a prerequisite to finalizing the EPA's proposed GHG emission standards for light-duty vehicles, which were jointly proposed by the EPA and Department of Transportation on September 15, 2009.

On March 19, 2015, the Whitehouse announced that President Obama will issue an Executive Order that will cut the Federal Government's greenhouse gas (GHG) emissions 40 percent over the next decade from 2008 levels -- saving taxpayers up to \$18 billion in avoided energy costs -- and increase the share of electricity the Federal Government consumes from renewable sources to 30 percent. Complementing this effort, several major Federal suppliers are announcing commitments to cut their own GHG emissions. The Administration hosted a roundtable that brought some of these large Federal suppliers together to discuss the benefits of their GHG reduction targets or to make their first-ever corporate commitments to disclose emissions and set new reduction goals.

Together, the combined results of the Federal Government actions and new supplier commitments will reduce GHG emissions by 26 million metric tons by 2025 from 2008 levels, the equivalent of taking nearly 5.5 million cars off the road for a year. And to encourage continued progress across the Federal supply chain, the Administration is releasing a new scorecard to publicly track self-reported emissions disclosure and progress for all major Federal suppliers, who together represent more than \$187 billion in Federal spending and account for more than 40 percent of all Federal contract dollars.

Since the Federal Government is the single largest consumer of energy in the Nation, Federal emissions reductions and progress across the supply chain will have broad impacts. The new commitments support the United States' international commitment to cut net GHG emissions 26-28 percent below 2005 levels by 2025, which President Obama first announced in November 2014 as part of an historic agreement with China. Additionally, the goals build on the strong progress made by Federal agencies during the first six years of the Administration under President

Obama's 2009 Executive Order on Federal Leadership on Environmental, Energy and Economic Performance, including reducing Federal GHG emissions by 17 percent — which helped Federal agencies avoid \$1.8 billion in cumulative energy costs — and increasing the share of renewable energy consumption to 9 percent.¹

3. State – California Air Resources Board

The California Air Resources Board (CARB), which is a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both Federal and State air pollution control programs within California. In this capacity, the CARB conducts research, sets the California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the State Implementation Plan (SIP). The California Ambient Air Quality Standards (CAAQS) for criteria pollutants are shown in Table 3. In addition, the CARB establishes emission standards for motor vehicles sold in California, consumer products (e.g., hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

The Salton Sea Air Basin has been designated by the CARB as a nonattainment area for ozone and PM-10. Currently, the Salton Sea Air Basin is in attainment with the ambient air quality standards for CO, lead, SO₂, NO₂, and sulfates and is unclassified for visibility reducing particles (PM-2.5) and Hydrogen Sulfide.

On June 20, 2002, the CARB revised the PM10 annual average standard to 20 µg/m³ and established an annual average standard for PM2.5 of 12 µg/m³. These standards were approved by the Office of Administrative Law in June 2003 and are now effective. On September 27, 2007 CARB approved the South Coast Air Basin and the Coachella Valley 2007 Air Quality Management Plan for Attaining the Federal 8-hour Ozone and PM2.5 Standards. The plan projects attainment for the 8-hour Ozone standard by 2024 and the PM2.5 standard by 2015.

On December 12, 2008 the CARB adopted Resolution 08-43, which limits NO_x, PM10 and PM2.5 emissions from on-road diesel truck fleets that operate in California. On October 12, 2009 Executive Order R-09-010 was adopted that codified Resolution 08-43 into Section 2025, title 13 of the California Code of Regulations. This regulation requires that by the year 2023 all commercial diesel trucks that operate in California shall meet model year 2010 (Tier 4) or latter emission standards. In the interim period, this regulation provides annual interim targets for fleet owners to meet. This regulation also provides a few exemptions including a onetime per year 3-day pass for trucks registered outside of California.

The CARB is also responsible for regulations pertaining to toxic air contaminants. The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly) was enacted in 1987 as a means to establish a formal air toxics emission inventory risk

¹ Source: <https://www.whitehouse.gov/the-press-office/2015/03/19/fact-sheet-reducing-greenhouse-gas-emissions-federal-government-and-acro>.

quantification program. AB 2588, as amended, establishes a process that requires stationary sources to report the type and quantities of certain substances their facilities routinely release into the Coachella Valley. The data is ranked by high, intermediate, and low categories, which are determined by: the potency, toxicity, quantity, volume, and proximity of the facility to nearby receptors.

The State currently has no regulations that establish ambient air quality standards for GHGs. However, the State has passed laws directing CARB to develop actions to reduce GHG emissions, which are listed below.

Assembly Bill 1493

California Assembly Bill 1493 (also known as the Pavley Bill, in reference to its author Fran Pavley) was enacted on July 22, 2002 and required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. In 2004, CARB approved the “Pavley I” regulations limiting the amount of GHGs that may be released from new passenger automobiles that are being phased in between model years 2009 through 2016. This regulation will reduce GHG emissions by 30 percent from 2002 levels by 2016. The second set of regulations “Pavley II” is currently in development and will be phased in between model years 2017 through 2025 and will reduce emissions by 45 percent by the year 2020. The Pavley II standards are being developed by linking the GHG emissions and formerly separate toxic tailpipe emissions standards previously known as the “LEV III” (third stage of the Low Emission Vehicle standards) into a single regulatory framework.

In 2005, the CARB submitted a “waiver” request to the EPA in order to implement the GHG standards and in March of 2008, the U.S. EPA denied the request. However, in June 2009, the decision was reversed and the U.S. EPA granted California the authority to implement the GHG standards for passenger cars, pickup trucks and sport utility vehicles. In September 2009, the Pavley I regulations were adopted by CARB.

Executive Order S-3-05

The California Governor issued Executive Order S-3-05, GHG Emission, in June 2005, which established the following reduction targets:

- 2010: Reduce greenhouse gas emissions to 2000 levels
- 2020: Reduce greenhouse gas emissions to 1990 levels
- 2050: Reduce greenhouse gas emissions to 80 percent below 1990 levels.

The executive order directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. To comply with the Executive Order, the secretary of CalEPA created the California Climate Action Team (CAT), made up of members from various State agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of businesses, local governments, and communities and through State incentive and regulatory programs.

Assembly Bill 32

In 2006, the California State Legislature adopted Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006. AB 32 requires CARB, to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable statewide emission cap which will be phased in starting in 2012. Emission reductions shall include carbon sequestration projects that would remove carbon from the atmosphere and best management practices that are technologically feasible and cost effective.

On December 6, 2007 CARB released the calculated Year 1990 GHG emissions of 427 million metric tons of CO₂e (MMTCO₂e). The 2020 target of 427 MMTCO₂e requires the reduction of 169 MMTCO₂e, or approximately 30 percent from the State's projected 2020 business as usual emissions of 596 MMTCO₂e and the reduction of 42 MMTCO₂e, or almost 10 percent from the 2002-2004 average GHG emissions. Under AB 32, CARB was required to adopt regulations by January 1, 2011 to achieve reductions in GHGs to meet the 1990 cap by 2020. Early measures CARB took to lower GHG emissions included requiring operators of the largest industrial facilities that emit 25,000 metric tons of CO₂ in a calendar year to submit verification of GHG emissions by December 1, 2010. The CARB Board also approved nine discrete early action measures that include regulations affecting landfills, motor vehicle fuels, refrigerants in cars, port operations and other sources that became enforceable on or before January 1, 2010.

On December 11, 2008 the CARB Board approved a Scoping Plan, with final adoption May 11, 2009 that proposed a variety of measures including direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, a market-based cap-and-trade system, and a fee regulation to fund the program. In current pending litigation, *Association of Irrigated Residents v. California Air Resources Board*, a California State trial court found that the analysis of the alternatives identified in the AB 32 Scoping Plan Functional Equivalent Document (FED) was not sufficient for informed decision-making and public review under CEQA. In response, CARB has appealed the decision. In addition, CARB prepared the *Supplement to the AB 32 Scoping Plan Functional Equivalent Document*, June 13, 2011. On August 24, 2011 CARB recertified the complete AB 32 Scoping Plan Functional Equivalent Environmental Document revised by the Final Supplement. In December, 2011 the Final Supplement was accepted as sufficient to fulfill the trial court's order.

While local government operations were not accounted for in achieving the 2020 emissions reduction, local land use changes are estimated to result in a reduction of 5 metric tons of CO₂e, which is approximately 3 percent of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments will play in successful implementation of AB 32, CARB is recommending GHG reduction goals of 15 percent of 2010 levels by 2020 to ensure that municipal and community-wide emissions match the State's

reduction target. According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 metric tons of CO₂e (or approximately 1.2 percent of the GHG reduction target).

In May 2014, CARB released its *First Update to the Climate Change Scoping Plan* (CARB 2014). This *Update* identifies the next steps for California's leadership on climate change. While California continues on its path to meet the near-term 2020 greenhouse gas limit, it must also set a clear path toward long-term, deep GHG emission reductions. This report highlights California's success to date in reducing its GHG emissions and lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050.

On January 20, 2017, CARB announced its release of a proposed plan to reduce greenhouse gas emissions by 40 percent below 1990 levels by 2030 – the most ambitious target in North America. The plan builds on the State's successful efforts to reduce emissions and outlines the most effective ways to reach the 2030 goal, including continuing California's Cap-and-Trade Program. The Final 2017 Scoping Plan Update will be released in late March and be considered for approval by the Board in late April.

SB 32. SB 32, Pavley. California Global Warming Solutions Act of 2006.

- (1) The California Global Warming Solutions Act of 2006 designates the State Air Resources Board as the State agency charged with monitoring and regulating sources of emissions of greenhouse gases. The State board is required to approve a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions level in 1990 to be achieved by 2020 and to adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective greenhouse gas emissions reductions. This bill would require the State board to ensure that statewide greenhouse gas emissions are reduced to 40% below the 1990 level by 2030.
- (2) This bill would become operative only if AB 197 of the 2015–16 Regular Session is enacted and becomes effective on or before January 1, 2017. AB 197 requires that the California Air Resources Board, which directs implementation of emission-reduction programs, should target direct reductions at both stationary and mobile sources.

Senate Bill 1368

Senate Bill 1368 (SB 1368) is the companion Bill of AB 32 and was adopted September, 2006. SB 1368 requires the California Public Utilities Commission (CPUC) to establish a performance standard for baseload generation of GHG emissions by investor-owned utilities by February 1, 2007 and for local publicly owned utilities by June 30, 2007. These standards could not exceed the GHG emissions rate from a baseload combined-cycle, natural gas-fired plant.

Furthermore, the legislation States that all electricity provided to the State, including imported electricity, must be generated by plants that meet the standards set by California Public Utilities Commission (CPUC) and California Energy Commission (CEC).

Executive Order S-1-07

Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State's GHG emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in the State by at least ten percent by 2020. This Order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009 CARB approved the proposed regulation to implement the low carbon fuel standard. The low carbon fuel standard is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. The low carbon fuel standard is designed to provide a framework that uses market mechanisms to spur the steady introduction of lower carbon fuels. The framework establishes performance standards that fuel producers and importers must meet each year beginning in 2011. Separate standards are established for gasoline and diesel fuels and the alternative fuels that can replace each. The standards are "back-loaded", with more reductions required in the last five years, than the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today's fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the low carbon fuel standard will be based on a combination of both lower carbon fuels and more efficient vehicles.

Reformulated gasoline mixed with corn-derived ethanol at ten percent by volume and low sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel as appropriate. Compressed natural gas and liquefied natural gas also may be low carbon fuels. Hydrogen and electricity, when used in fuel cells or electric vehicles are also considered as low carbon fuels for the low carbon fuel standard.

Senate Bill 97

Senate Bill 97 (SB 97) was adopted August 2007 and acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. SB 97 directed the Governor's Office of Planning and Research (OPR), which is part of the State Resource Agency, to prepare, develop, and transmit to CARB guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The Resources Agency was required to certify and adopt those guidelines by January 1, 2010.

Pursuant to the requirements of SB 97 as stated above, on December 30, 2009 the Natural Resources Agency adopted amendments to the State CEQA guidelines that address GHG emissions. The CEQA Guidelines Amendments changed 14 sections of the CEQA Guidelines and incorporate GHG language throughout the Guidelines. However, no GHG emissions thresholds of significance are provided and no specific mitigation measures are identified. The GHG emission reduction amendments went into effect on March 18, 2010 and are summarized below:

- Climate action plans and other greenhouse gas reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.
- Local governments are encouraged to quantify the greenhouse gas emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significance, such as the extent to which the given project complies with State, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance. Consistent with existing CEQA Guidelines, OPR encourages local governments to develop and publish their own thresholds of significance for GHG impacts assessment.
- When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies, or recommended by experts.
- New amendments include guidelines for determining methods to mitigate the effects of greenhouse gas emissions in Appendix F of the CEQA Guidelines.
- OPR is clear to state that “to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation”.
- OPR’s emphasizes the advantages of analyzing GHG impacts on an institutional, programmatic level. OPR therefore approves tiering of environmental analyses and highlights some benefits of such an approach.
- Environmental impact reports (EIRs) must specifically consider a project's energy use and energy efficiency potential.

Senate Bills 1078, 107, and X1-2 and Executive Orders S-14-08 and S-21-09

Senate Bill 1078 (SB 1078) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. Senate Bill 107 (SB 107) changed the target date to 2010. Executive Order S-14-08 was signed on November 2008 and expands the State’s Renewable Energy Standard to 33 percent renewable energy by 2020. Executive Order S-21-09 directed CARB to adopt regulations by July 31, 2010 to enforce S-14-08. Senate Bill X1-2 codifies the 33 percent renewable energy requirement by 2020.

Senate Bill 375

Senate Bill 375 (SB 375) was adopted September 2008 and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy (SCS) or alternate planning strategy (APS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP). CARB, in consultation with each MPO, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's sustainable communities strategy or alternate planning strategy for consistency with its assigned targets.

The proposed project is located within the Southern California Association of Governments (SCAG), which has authority to develop the SCS or APS. For the SCAG region, the targets set by CARB are at eight percent below 2005 per capita GHG emissions levels by 2020 and 13 percent below 2005 per capita GHG emissions levels by 2035. On April 4, 2012, SCAG adopted the 2012-2035 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS), which meets the CARB emission reduction requirements. The Housing Element Update is required by the State to be completed within 18 months after RTP/SCS adoption or by October 2013.

On April 7, 2016, SCAG's Regional Council adopted the 2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy (2016 RTP/SCS or Plan). The Plan is a long-range visioning plan that balances future mobility and housing needs with economic, environmental and public health goals. The Plan charts a course for closely integrating land use and transportation – so that the region can grow smartly and sustainably. It outlines more than \$556.5 billion in transportation system investments through 2040. The Plan was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura. In June 2016, SCAG received its conformity determination from the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) indicating that all air quality conformity requirements for the 2016 RTP/SCS and associated 2015 FTIP Consistency Amendment through Amendment 15-12 have been met.

Senate Bill X7-7

Senate Bill X7-7 (SB X7-7), enacted on November 9, 2009, mandates water conservation targets and efficiency improvements for urban and agricultural water suppliers. SB X7-7 requires the Department of Water Resources (DWR) to develop a task force and technical panel to develop alternative best management practices for the water sector. In addition SB X7-7 required the

DWR to develop criteria for baseline uses for residential, commercial, and industrial uses for both indoor and landscaped area uses. The DWR was also required to develop targets and regulations that achieve a statewide 20 percent reduction in water usage.

Assembly Bill 939 and Senate Bill 1374

Assembly Bill 939 (AB 939) requires that each jurisdiction in California to divert at least 50 percent of its waste away from landfills, whether through waste reduction, recycling or other means. Senate Bill 1374 (SB 1374) requires the California Integrated Waste Management Board to adopt a model ordinance by March 1, 2004 suitable for adoption by any local agency to require 50 to 75 percent diversion of construction and demolition of waste materials from landfills.

California Code of Regulations (CCR) Title 24, Part 6

CCR Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

The Energy Commission adopted 2008 Standards on April 23, 2008 and Building Standards Commission approved them for publication on September 11, 2008. These updates became effective on August 1, 2009. 2013 Standards have been approved and became effective July 1, 2014. 2016 Standards were adopted January 1, 2017.

California Code of Regulations (CCR) Title 24, Part 11

All buildings for which an application for a building permit is submitted on or after January 1, 2017 must follow the 2016 standards. The 2016 standards are estimated to be approximately 28 percent more efficient than the 2013 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions.

California Green Building Standards

On January 12, 2010, the State Building Standards Commission unanimously adopted updates to the California Green Building Standards Code, which went into effect on January 1, 2011. The Code is a comprehensive and uniform regulatory code for all residential, commercial and school buildings. CCR Title 24, Part 11: California Green Building Standards (Title 24) became effective in 2001 in response to continued efforts to reduce GHG emissions associated with energy consumption. CCR Title 24, Part 11 now require that new buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low

pollutant-emitting finish materials. One focus of CCR Title 24, Part 11 is water conservation measures, which reduce GHG emissions by reducing electrical consumption associated with pumping and treating water. CCR Title 24, Part 11 has approximately 52 nonresidential mandatory measures and an additional 130 provisions for optional use. Some key mandatory measures for commercial occupancies include specified parking for clean air vehicles, a 20 percent reduction of potable water use within buildings, a 50 percent construction waste diversion from landfills, use of building finish materials that emit low levels of volatile organic compounds, and commissioning for new, nonresidential buildings over 10,000 square feet.

The California Green Building Standards Code does not prevent a local jurisdiction from adopting a more stringent code as State law provides methods for local enhancements. The Code recognizes that many jurisdictions have developed existing construction and demolition ordinances, and defers to them as the ruling guidance provided they provide a minimum 50-percent diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. State building code provides the minimum standard that buildings need to meet in order to be certified for occupancy. Enforcement is generally through the local building official.

Executive Order B-30-15

Executive Order B-30-15, establishing a new interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030, was signed by Governor Brown in April 2015.

Executive Order B-29-15

Executive Order B-29-15, mandates a statewide 25% reduction in potable water usage. EO B-29-15 signed into law on April 1, 2015.

Executive Order B-37-16

Executive Order B-29-15, continuing the State's adopted water reductions, was signed into law on May 9, 2016. The water reductions build off the mandatory 25% percent reduction called for in EO B-29-15.

4. Regional

The SCAQMD works directly with the Southern California Association of Governments (SCAG), county transportation commissions, and local governments and cooperates actively with all Federal and State agencies. SCAQMD defines a "sensitive receptor" as a land use such as residences, schools, child care centers, athletic facilities, playgrounds, retirement homes and convalescent homes.

South Coast Air Quality Management District

SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when necessary. SCAQMD is directly responsible for

reducing emissions from stationary, mobile, and indirect sources. It has responded to this requirement by preparing a sequence of AQMPs. On June 30, 2016, the SCAQMD released its Draft 2016 AQMP. The 2016 AQMP is a regional blueprint for achieving the Federal air quality standards and healthful air.

The 2016 AQMP includes both stationary and mobile source strategies to ensure that rapidly approaching attainment deadlines are met, that public health is protected to the maximum extent feasible, and that the region is not faced with burdensome sanctions if the Plan is not approved or if the NAAQS are not met on time. As with every AQMP, a comprehensive analysis of emissions, meteorology, atmospheric chemistry, regional growth projections, and the impact of existing control measures is updated with the latest data and methods. The Coachella Valley area in the Riverside County portion of the Salton Sea Air Basin exceeded federal and State standards for ozone and PM10. However, the high PM10 concentrations exceeding the federal 24-hour PM10 standard occurred on days influenced by high-wind natural events, which the District has flagged in the U.S. EPA AQS database such that U.S. EPA will consider excluding such data when determining the NAAQS attainment status in accordance with U.S. EPA's Exceptional Events Rule. For the stations in the Coachella Valley, the federal 3-year design values for 8-hour ozone have continued to exhibit downward trends through 2015. On March 23, 2017 CARB approved the 2016 AQMP. The primary goal of this Air Quality Management Plan is to meet clean air standards and protect public health, including ensuring benefits to environmental justice and disadvantaged communities. Now that the plan has been approved by CARB, it has been forwarded to the U.S. Environmental Protection Agency for its review. If approved by EPA, the plan becomes Federally enforceable.

A revised draft of the 2012 AQMP was released on September, 2012, and was adopted by the SCAQMD Board on December 7, 2012. The 2012 AQMP is now awaiting approval from CARB and the U.S. EPA. The 2012 AQMP is being prepared in order to meet the Federal Clean Air Act requirement that all 24-hour PM2.5 non-attainment areas prepare a SIP, which was required to be submitted to the U.S. EPA by December 14, 2012 and demonstrate attainment with the 24-hour PM2.5 standard by 2014. The 2012 AQMP demonstrates attainment of the Federal 24-hour PM2.5 standard by 2014 in the Basin through adoption of all feasible measures, and therefore, no extension of the attainment date is needed.

The 2007 AQMP demonstrated attainment with the 1997 8-hour ozone (80 ppb) standard by 2023, through implementation of future improvements in control techniques and technologies. These "black box" emissions reductions represent 65 percent of the remaining NOx emission reductions by 2023 in order to show attainment with the 1997 8-hour ozone NAAQS. Given the magnitude of these needed emissions reductions and the fact that in 2008 the 8-hour ozone standard was reduced to 75 ppb, additional NOx control measures have been provided in this AQMP even though the primary purpose of this AQMP was to show compliance with 24-hour PM2.5 emissions standards.

The 2012 AQMP built upon the approaches taken in the 2007 AQMP for the attainment of Federal PM and ozone standards, and highlights the significant amount

of reductions needed and the need to engage in interagency coordinated planning of mobile sources to meet all of the Federal criteria pollutant standards. Compared with the 2007 AQMP, the 2012 AQMP utilized revised emissions inventory projections that use 2008 as the base year. On-road emissions are calculated using CARB EMFAC2011 emission factors and the transportation activity data provided by SCAG from their 2012 Regional Transportation Plan (2012 RTP). Off-road emissions were updated using CARB's 2011 In-Use Off-Road Fleet Inventory Model. Since the 2007 AQMP was finalized new area source categories such as LPG transmission losses, storage tank and pipeline cleaning and degassing, and architectural colorants, were created and included in the emissions inventories. Composting waste was revised and now includes the emissions from green waste composting covered under SCAQMD Rule 1133.3. The 2012 AQMP also includes analysis of several additional sources of GHG emissions such as landfills and could also assist in reaching the GHG target goals in the AB32 Scoping Plan.

On June 21, 2002, the SCAQMD adopted the 2002 Coachella Valley PM10 State Implementation Plan (CVSIP). The 2002 CVSIP, which included a request for extension of the PM10 deadline and met all applicable Federal Clean Air Act requirements, including a Most Stringent Measures analysis, control measures, and attainment demonstration. U.S. EPA approved the 2002 CVSIP on April 18, 2003. At the time of adoption, the AQMD committed to revising with the 2002 CVSIP with the latest approved mobile source emissions estimates, planning assumptions and fugitive dust source emission estimates, when they became available.

The 2003 CVSIP updates those elements of the 2002 CVSIP; the control strategies and control measure commitments have not been revised and remain the same as in the 2002 CVSIP. The 2003 CVSIP contains updated emissions inventories, emission budgets, and attainment modeling. It requests that U.S. EPA replace the approved transportation conformity budgets in the 2002 CVSIP with those in the 2003 CVSIP. U.S. EPA approved these budgets on March 25, 2004 with an effective date of April 9, 2004.

During construction and operation, the project must comply with applicable rules and regulations. The following are rules the project may be required to comply with, either directly, or indirectly:

SCAQMD Rule 402 prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

SCAQMD Rule 403 governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access

roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM₁₀ component). Compliance with these rules would reduce impacts on nearby sensitive receptors. Rule 403 measures may include but are not limited to the following:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Water active sites at least three times daily. (Locations where grading is to occur will be thoroughly watered prior to earthmoving).
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meters (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicle Code section 23114.
- Reduce traffic speeds on all unpaved roads to 15 miles per hour (mph) or less.
- Suspension of all grading activities when wind speeds (including instantaneous wind gusts) exceed 25 mph.
- Bumper strips or similar best management practices shall be provided where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site each trip.
- Replanting disturbed areas as soon as practical.
- During all construction activities, construction contractors shall sweep on-site and off-site streets if silt is carried to adjacent public thoroughfares, to reduce the amount of particulate matter on public streets. All sweepers shall be compliant with SCAQMD Rule 1186.1, Less Polluting Sweepers.

SCAQMD Rule 403.1 are supplemental to Rule 403 requirements and shall apply only to fugitive dust sources in the Coachella Valley.

(d) General Requirements of 403.1

- (1) Any person who is responsible for any active operation, open storage pile, or disturbed surface area, and who seeks an exemption pursuant to Rule 403, paragraph (g)(2) shall be required to determine when wind speed conditions exceed 25 miles per hour. The wind speed determination shall be based on either District forecasts or through use of an on-site anemometer as described in subdivision (g).

- (1) Any person involved in active operations in the Coachella Valley Blowsand Zone shall stabilize new man-made deposits of bulk material within 24 hours of making such bulk material deposits. Stabilization procedures shall include one

or more of the following: (A) Application of water to at least 70 percent of the surface area of any bulk material deposits at least 3 times for each day that there is evidence of wind driven fugitive dust; or (B) Application of chemical stabilizers in sufficient concentration so as to maintain a stabilized surface for a period of at least 6 months; or

(C) Installation of wind breaks of such design so as to reduce maximum wind gusts to less than 25 miles per hour in the area of the bulk material deposits.

(2) Any person involved in active operations in the Coachella Valley Blowsand Zone shall stabilize new deposits of bulk material originating from off-site undisturbed natural desert areas within 72 hours.

Stabilization procedures shall include one or more of the following: (A) Application of water to at least 70 percent of the surface area of any bulk material deposits at least 3 times for each day that there is evidence of wind driven fugitive dust; or (B) Application of chemical stabilizers in sufficient concentration so as to maintain a stabilized surface for a period of at least six months.

(4) A person who conducts or authorizes the conducting of an active operation shall implement at least one of the control actions specified in Rule 403, Table 2 for the source category "Inactive Disturbed Surface Areas" to minimize wind driven fugitive dust from disturbed surface areas at such time when active operations have ceased for a period of at least 20 days.

(5) Any person involved in agricultural tilling or soil mulching activities shall cease such activities when wind speeds exceed 25 miles per hour. The wind speed determination shall be based on either District forecasts or through use of an on-site anemometer as described in subdivision (g).

(e) Fugitive Dust Control Plan and Other Requirements for Construction Projects/Earth-Moving Activities

(1) Any person who conducts or authorizes the conducting of an active operation with a disturbed surface area of more than 5,000 square feet shall not initiate any earth-moving activities unless a fugitive dust control plan is prepared and approved by the Executive Officer in accordance with the requirements of subdivision (f) and the Rule 403.1 Implementation Handbook. These provisions shall not apply to active operations exempted by paragraph (i)(4).

(2) Any operator required to submit a fugitive dust control plan under paragraph (e)(1) shall maintain a complete copy of the approved fugitive dust control plan on site in a conspicuous place at all times and the fugitive dust control plan must be provided upon request.

(3) Any operator required to submit a fugitive dust control plan under paragraph (e)(1) shall install and maintain signage with project contact information that

meets the minimum standards of the Rule 403.1 Implementation Handbook prior to initiating any type of earth-moving activities.

- (4) Any operator required to submit a fugitive dust control plan under paragraph (e)(1) for a project with a disturbed surface area of 50 or more acres shall have an Dust Control Supervisor that: (A) is employed by or contracted with the property owner or developer; and (B) is on-site or is available to be on-site within 30 minutes of initial contact; and (C) has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule 403 and 403.1 requirements; and (D) has completed the AQMD Coachella Valley Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class.
- (5) Failure to comply with any of the provisions of an approved fugitive dust control plan shall be a violation of this rule.

SCAQMD Rule 445 prohibits permanently installed wood burning devices into any new development. A wood burning device means any fireplace, wood burning heater, or pellet-fueled wood heater, or any similarly enclosed, permanently installed, indoor or outdoor device burning any solid fuel for aesthetic or space-heating purposes, which has a heat input of less than one million British thermal units per hour.

SCAQMD Rule 481 applies to all spray painting and spray coating operations and equipment. The rule states that a person shall not use or operate any spray painting or spray coating equipment unless one of the following conditions is met:

- (1) The spray coating equipment is operated inside a control enclosure, which is approved by the Executive Officer. Any control enclosure for which an application for permit for new construction, alteration, or change of ownership or location is submitted after the date of adoption of this rule shall be exhausted only through filters at a design face velocity not less than 100 feet per minute nor greater than 300 feet per minute, or through a water wash system designed to be equally effective for the purpose of air pollution control.
- (2) Coatings are applied with high-volume low-pressure, electrostatic and/or airless spray equipment.
- (3) An alternative method of coating application or control is used which has effectiveness equal to or greater than the equipment specified in the rule.

SCAQMD Rule 1108 governs the sale, use, and manufacturing of asphalt and limits the volatile organic compound (VOC) content in asphalt used in the South Coast Air Basin. This rule would regulate the VOC content of asphalt used during construction. Therefore, all asphalt used during construction of the project must comply with SCAQMD Rule 1108.

SCAQMD Rule 1113 governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction. Therefore, all paints and solvents

used during construction and operation of the project must comply with SCAQMD Rule 1113.

Rule 1133.3

The SCAQMD developed Rule 1133.3 in order to reduce emissions of VOC and ammonia during greenwaste composting operations. For projects that process greater than 5,000 tons per year of foodwaste any active composting that contains more than 10 percent foodwaste is required to be operated with either an emission control system that has an overall control efficiency of at least 80 percent for VOC and ammonia emissions or a control alternative that achieves the same reductions.

SCAQMD Rule 1143 governs the manufacture, sale, and use of paint thinners and solvents used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations by limiting their VOC content. This rule regulates the VOC content of solvents used during construction. Solvents used during the construction phase must comply with this rule.

SCAQMD Rule 1186 limits the presence of fugitive dust on paved and unpaved roads and sets certification protocols and requirements for street sweepers that are under contract to provide sweeping services to any Federal, State, County, agency or special district such as water, air, sanitation, transit, or school district.

SCAQMD Rule 1303 governs the permitting of re-located or new major emission sources, requiring Best Available Control Measures and setting significance limits for PM₁₀ among other pollutants.

SCAQMD Rule 1401, New Source Review of Toxic Air Contaminants, specifies limits for maximum individual cancer risk, cancer burden, and non-cancer acute and chronic hazard index from new permit units, relocations, or modifications to existing permit units, which emit toxic air contaminants.

SCAQMD Rule 2202, On-Road Motor Vehicle Mitigation Options, is to provide employers with a menu of options to reduce mobile source emissions generated from employee commutes, to comply with Federal and State Clean Air Act requirements, Health & Safety Code Section 40458, and Section 182(d)(1)(B) of the Federal Clean Air Act. It applies to any employer who employs 250 or more employees on a full or part-time basis at a worksite for a consecutive six-month period calculated as a monthly average.

In order to assist local agencies with direction on GHG emissions, the SCAQMD organized a working group and adopted Rules 2700, 2701, 2702, and 3002 which are described below.

SCAQMD Stakeholder Working Group

Since neither CARB nor the OPR has developed GHG emissions threshold, the SCAQMD formed a Working Group to develop significance thresholds related to GHG emissions. At the September 28, 2010 Working Group meeting, the SCAQMD released its most current version of the draft GHG emissions thresholds, which

recommends a tiered approach that provides a quantitative annual thresholds of 10,000 MTCO₂e for industrial uses.

Rules 2700 and 2701

The SCAQMD adopted Rules 2700 and 2701 on December 5, 2008, which establishes the administrative structure for a voluntary program designed to quantify GHG emission reductions. Rule 2701 provides specific protocols for private parties to follow to generate certified GHG emission reductions for projects within the district. Approved protocols include forest projects, urban tree planting, and manure management. The SCAQMD is currently developing additional protocols for other reduction measures. For a GHG emission reduction project to qualify, it must be verified and certified by the SCAQMD Executive Officer, who has 60 days to approve or deny the Plan. Upon approval of the Plan, the Executive Officer is required to issue a certified receipt of the GHG emission reductions within 90 days.

Rule 2702

The SCAQMD adopted Rule 2702 on February 6, 2009, which establishes a voluntary air quality investment program from which SCAQMD can collect funds from parties that desire certified GHG emission reductions, pool those funds, and use them to purchase or fund GHG emission reduction projects within two years, unless extended by the Governing Board. Priority will be given to projects that result in co-benefit emission reductions of GHG emissions and criteria or toxic air pollutants within environmental justice areas. Further, this voluntary program may compete with the cap-and-trade program identified for implementation in CARB's Scoping Plan, or a Federal cap and trade program.

Rule 3002

The SCAQMD amended Rule 3002 on November 5, 2010 to include facilities that emit greater than 100,000 tons per year of CO₂e are required to apply for a Title V permit by July 1, 2011. A Title V permit is for facilities that are considered major sources of emissions.

Although the SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate air quality issues associated with plans and new development projects throughout the South Coast Air Basin. Instead, this is controlled through local jurisdictions in accordance to the California Environmental Quality Act (CEQA). In order to assist local jurisdictions with air quality compliance issues the [CEQA Air Quality Handbook \(SCAQMD CEQA Handbook\)](http://www.aqmd.gov/ceqa/hdbk.html), prepared by the SCAQMD, 1993, with the most current updates found at <http://www.aqmd.gov/ceqa/hdbk.html>, was developed in accordance with the projections and programs of the AQMP. The purpose of the SCAQMD CEQA Handbook is to assist Lead Agencies, as well as consultants, project proponents, and other interested parties in evaluating a proposed project's potential air quality impacts. Specifically, the SCAQMD CEQA Handbook explains the procedures that the SCAQMD recommends be followed for the environmental review process required by CEQA. The SCAQMD CEQA Handbook provides direction on how to evaluate potential air quality impacts, how to determine whether these impacts are significant, and how to mitigate these impacts. SCAQMD is in the process of developing an "Air Quality

Analysis Guidance Handbook" to replace the CEQA Air Quality Handbook approved by the AQMD Governing Board in 1993. The 1993 CEQA Air Quality Handbook is still available but not online. In addition, there are sections of the 1993 Handbook that are obsolete. In order to assist the CEQA practitioner in conducting an air quality analysis while the new Handbook is being prepared, supplemental information regarding: significance thresholds and analysis, emissions factors, cumulative impacts emissions analysis, and other useful subjects, are available at the SCAQMD website².

Southern California Association of Governments

The SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the Federally designated MPO for the majority of the southern California region and is the largest MPO in the nation. With respect to air quality planning, SCAG has prepared the Regional Transportation Plan and Regional Transportation Improvement Plan (RTIP), which addresses regional development and growth forecasts. These plans form the basis for the land use and transportation components of the AQMP, which are utilized in the preparation of air quality forecasts and in the consistency analysis included in the AQMP. The Regional Transportation Plan, Regional Transportation Improvement Plan, and AQMP are based on projections originating within the City and County General Plans.

Coachella Valley Model Dust Control Ordinance (see also SCAQMD Rule 403.1)

The Coachella Valley Dust Control Ordinance was designed to establish minimum requirements for construction and demolition activities and other specified sources in order to reduce man-made fugitive dust and the corresponding PM10 emissions. The Ordinance establishes following rules associated with reducing the fugitive dust emissions associated with the project:

Section 400 Control Requirements

410. Work Practices – All Fugitive Dust Sources

- (1) No operator shall conduct any potential dust-generating activity on a site unless the operator utilizes one or more Coachella Valley Best Available Control Measures, as identified in the Coachella Valley Fugitive Dust Control Handbook for each fugitive dust source such that the applicable performance standards are met.
- (2) Any operator involved in any potential dust-generating activity on a site with a disturbed surface area greater than one acre shall, at a minimum, operate a water application system as identified in the Coachella Valley Fugitive Dust Control Handbook, if watering is the selected control measure.

² <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook>.

Performance Standards and Test Methods

- (3) No person subject to the requirements contained in Section 410.1 shall cause or allow visible fugitive dust emissions to exceed 20 percent opacity, or extend more than 100 feet either horizontally or vertically from the origin of a source, or cross any property line.

420. Construction and Demolition Activities

- (1) Any operator applying for a grading permit, or a building permit for an activity with a disturbed surface area of more than 5,000 square feet, shall not initiate any earth-moving operations unless a Fugitive Dust Control Plan has been prepared pursuant to the provisions of the Coachella Valley Fugitive Dust Control Handbook and approved by the City (County).
- (2) A complete copy of the approved Fugitive Dust Control Plan must be kept on-site in a conspicuous place at all times and provided to the City (County) and AQMD upon request.
- (4) Any operator involved in earth-moving operations shall implement at least one of the following short-term stabilization methods during non-working hours:
 - A. maintaining soils in a damp condition as determined by sight or touch; or
 - B. establishment of a stabilized surface through watering; or
 - C. application of a chemical dust suppressant in sufficient quantities and concentrations to maintain a stabilized surface.
- (5) Within 10 days of ceasing activity, an operator shall implement at least one of the following long-term stabilization techniques for any disturbed surface area where construction activities are not scheduled to occur for at least 30 days:
 - A. revegetation that results in 75 percent ground coverage provided that an active watering system is in place at all times; or
 - B. establishment of a stabilized surface through watering with physical access restriction surrounding the area; or
 - C. use of chemical stabilizers to establish a stabilized surface with physical access restriction surrounding the area.
- (6) Any operator shall remove all bulk material track-out from any site access point onto any paved road open to through traffic:
 - A. within one hour if such material extends for a cumulative distance of greater than 25 feet from any site access point; and
 - B. at the conclusion of each workday.
- (8) Any operator required to submit a Fugitive Dust Control Plan under Section 420.1 shall install and maintain project contact signage that meets the minimum standards of the Coachella Valley Fugitive Dust Control Handbook,

including a 24-hour manned toll-free or local phone number, prior to initiating any type of earth-moving operations.

Performance Standards and Test Methods

- (10) No operator required to submit a Fugitive Dust Control Plan under Section 420.1 shall cause or allow visible fugitive dust emissions to exceed 20 percent opacity, or extend more than 100 feet either horizontally or vertically from the origin of a source, or cross any property line.
- (11) Exceedance of the visible emissions prohibition in Section 420.10 occurring due to a high-wind episode shall constitute a violation of Section 420.10, unless the operator demonstrates to City (County) all the following conditions:
 - A. all Fugitive Dust Control Plan measures or applicable Coachella Valley Best Available Control Measures were implemented and maintained on-site; and
 - B. the exceedance could not have been prevented by better application, implementation, operation, or maintenance of control measures; and
 - C. appropriate recordkeeping was compiled and retained in accordance with the requirements in Section 420.12 through 420.15; and
 - D. documentation of the high-wind episode on the day(s) in question is provided by appropriate records.

Reporting / Recordkeeping

Before Construction

- (12) The operator of a project with ten acres or more of earth-moving operations shall:
 - A. forward two copies of a Site-Specific, Stand Alone [8½ by 11 inch] Fugitive Dust Control Plan to the AQMD within ten days after approval by the City (County). [Note: A separate AQMD approval will not be issued]; and
 - B. notify the City (County) and the AQMD at least 24-hours prior to initiating earth-moving operations.

During Construction

- (13) Any operator involved in earth-moving operations shall compile, and maintain for a period of not less than three years, daily self-inspection recordkeeping forms in accordance with the guidelines contained in the Coachella Valley Fugitive Dust Control Handbook.
- (14) Any operator involved in earth-moving operations that utilizes chemical dust suppressants for dust control on a site shall compile records indicating the type of product applied, vendor name, and the method, frequency, concentration,

quantity and date(s) of application and shall retain such records for a period of not less than three years.

After Construction

- (15) Any operator subject to the provisions of Section 420.12 shall notify the City (County) and the AQMD within ten days of the establishment of the finish grade or at the conclusion of the finished grading inspection.

430. Disturbed Vacant Lands / Weed Abatement Activities

- (1) Owners of property with a disturbed surface area greater than 5,000 square feet shall within 30 days of receiving official notice by the City (County) prevent trespass through physical access restriction as permitted by the City (County).
- (2) In the event that implementation of Section 430.1 is not effective in establishing a stabilized surface within 45 days of restricting access, the owner shall implement at least one of the following long term stabilization techniques within an additional 15 days, unless the City (County) has determined that the land has been restabilized:
 - A. uniformly apply and maintain surface gravel or chemical dust suppressants such that a stabilized surface is formed; or
 - B. begin restoring disturbed surfaces such that the vegetative cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions. Such restoration control measure(s) must be maintained and reapplied, if necessary, such that a stabilized surface is formed within 8 months of the initial application.
- (3) Any operator conducting weed abatement activities on a site that results in a disturbed surface area of 5,000 or more square feet shall:
 - A. apply sufficient water before and during weed abatement activities such that the applicable performance standards are met.

Performance Standards and Test Methods

- (4) No person subject to the provisions of Sections 430.1 through 430.3 shall cause or allow visible fugitive dust emissions to exceed 20 percent opacity, or extend more than 100 feet either horizontally or vertically from a source, or cross any property line, and shall either:
 - A. maintain a stabilized surface; or
 - B. maintain a threshold friction velocity for disturbed surface areas corrected for non-erodible elements of 100 centimeters per second or higher.

Reporting / Recordkeeping

- (5) Within 90 days of ordinance adoption, operators of property with disturbed surface area of 5,000 or more square feet shall notify the City (County) of the location of such lands and provide owner contact information.
- (6) Any person subject to the provisions of Sections 430.1 through 403.3 shall compile, and retain for a period of not less than three years, records indicating the name and contact person of all firms contracted with for dust mitigation, listing of dust control implements used on-site, and invoices from dust suppressant contractors/vendors.

460. Public or Private Paved Roads

- (1) Any owner of paved roads shall construct, or require to be constructed all new or widened paved roads in accordance with the following standards:
 - A. curbing in accordance with the American Association of State Highway and Transportation Officials guidelines or as an alternative, road shoulders paved or treated with chemical dust suppressants or washed gravel in accordance with the performance standards included in Section 440.4 with the following minimum widths:

Average Daily Trips	Minimum Shoulder Width
500 - 3,000	4 feet
3,000 or greater	8 feet

Section 500 Administrative Requirements

- (1) Any operator preparing a Fugitive Dust Control Plan shall complete the AQMD Coachella Valley Fugitive Dust Control Class and maintain a current valid Certificate of Completion.
- (2) At least one representative of each construction or demolition general contractor and subcontractor responsible for earth-movement operations shall complete the AQMD Coachella Valley Fugitive Dust Control Class and maintain a current valid Certificate of Completion.
- (3) All reporting / recordkeeping required by Section 420 shall be provided to the City (County) and AQMD representatives immediately upon request.
- (4) All reporting / recordkeeping required by Section 430 through Section 460 shall be provided to the City (County) and AQMD representatives within 24-hours of a written request.

5. Local – County of Riverside

Local jurisdictions, such as the County of Riverside, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the County is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The County is also responsible for the implementation of transportation control measures as outlined in the 2012 AQMP. In accordance with CEQA requirements and the CEQA review process, the County assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

In accordance with the CEQA requirements, the County does not, however, have the expertise to develop plans, programs, procedures, and methodologies to ensure that air quality within the County and region will meet Federal and State standards. Instead, the County relies on the expertise of the SCAQMD and utilizes the SCAQMD CEQA Handbook as the guidance document for the environmental review of plans and development proposals within its jurisdiction.

Riverside County General Plan

The project is within the Eastern Coachella Valley Area Plan; however, the Air Quality Element of the County of Riverside General Plan summarizes air quality issues in the Basin, air quality-related plans and programs administered by Federal, State, and special purpose agencies, and establishes goals and policies to improve air quality. These goals and policies in the Air Quality Element include:

- AQ 1.1 Promote and participate with regional and local agencies, both public and private, to protect and improve air quality. (AI 111)
- AQ 1.2 Support the Southern California Association of Government's (SCAG) Regional Growth Management Plan by developing intergovernmental agreements with appropriate governmental entities such as the Western Riverside Council of Governments (WRCOG), the Coachella Valley Association of Governments (CVAG), sanitation districts, water districts, and those subregional entities identified in the Regional Growth Management Plan. (AI 111)
- AQ 1.3 Participate in the development and update of those regional air quality management plans required under Federal and State law, and meet all standards established for clean air in these plans. (AI 110)
- AQ 1.4 Coordinate with the SCAQMD and MDAQMD to ensure that all elements of air quality plans regarding reduction of air pollutant emissions are being enforced. (AI 111)

- AQ 1.5 Establish and implement air quality, land use and circulation measures that improve not only the County's environment but the entire regions. (AI 111)
- AQ 1.6 Establish a level playing field by working with local jurisdictions to simultaneously adopt policies similar to those in this Air Quality Element.
- AQ 1.7 Support legislation which promotes cleaner industry, clean fuel vehicles and more efficient burning engines and fuels. (AI 113)
- AQ 1.8 Support the introduction of Federal, State or regional enabling legislation to permit the County to promote inventive air quality programs, which otherwise could not be implemented. (AI 113)
- AQ 1.9 Encourage, publicly recognize and reward innovative approaches that improve air quality. (AI 113)
- AQ 1.10 Work with regional and local agencies to evaluate the feasibility of implementing a system of charges (e.g., pollution charges, user fees, congestion pricing and toll roads) that requires individuals who undertake polluting activities to bear the economic cost of their actions where possible. (AI 111)
- AQ 1.11 Involve environmental groups, the business community, special interests, and the general public in the formulation and implementation of programs that effectively reduce airborne pollutants.
- AQ 2.2 Require site plan designs to protect people and land uses sensitive to air pollution through the use of barriers and/or distance from emissions sources when possible.
- AQ 4.1 Encourage the use of building materials/methods which reduce emissions.
- AQ 4.2 Encourage the use of efficient heating equipment and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces and boiler units.
- AQ 4.5 Require stationary pollutions sources to minimize the release of toxic pollutants through: design features, operating procedures, preventative maintenance, operator training, and emergency response planning.
- AQ 4.6 Require stationary air pollution sources to comply with applicable air district rules and control measures.

- AQ 4.7 To the greatest extent possible, require every project to mitigate any of its anticipated emissions which exceed allowable emissions as established by the SCAQMD, MDAQMD, SOCAB, the Environmental Protection Agency and the California Air Resources Board.
- AQ 4.8 Expand, as appropriate, measures contained in the County's Fugitive Dust Reduction Program for the Coachella Valley to the entire County.
- AQ 4.9 Require compliance with SCAQMD Rules 403 and 403.1, and support appropriate future measures to reduce fugitive dust emanating from construction sites.
- AQ 4.10 Coordinate with the SCAQMD and MDAQMD to create a communications plan to alert those conducting grading operations in the County of first, second, and third stage smog alerts, and when wind speeds exceed 25 miles per hour. During these instances all grading operations should be suspended. (AI 111)
- AQ 5.4 Encourage the incorporation of energy-efficient design elements, including appropriate site orientation and the use of shade and windbreak trees to reduce fuel consumption for heating and cooling.
- AQ 12.5 Encourage business owners to schedule deliveries at off-peak traffic periods.
- AQ 15.1 Identify and monitor sources, enforce existing regulations, and promote stronger controls to reduce particulate matter.
- AQ 16.1 Cooperate with local, regional, State and Federal jurisdictions to better control particulate matter.
- AQ 17.1 Reduce particulate matter from agriculture, construction, demolition, debris hauling, street cleaning, utility maintenance, railroad rights-of-way, and off-road vehicles to the extent possible. (AI 123)
- AQ 17.3 Identify and create a control plan for areas within the County prone to wind erosion of soil.
- AQ 17.4 Adopt incentives, regulations and/or procedures to manage paved and unpaved roads and parking lots so they produce the minimum practicable level of particulates. (AI 111)
- AQ 17.5 Adopt incentives and/or procedures to limit dust from agricultural lands and operations, where applicable. (AI 123)

AQ 17.6 Reduce emissions from building materials and methods that generate excessive pollutants, through incentives and/or regulations.

B. Monitored Air Quality

The air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the air basin. Estimates of the existing emissions provided in the Final 2016 Air Quality Management Plan, prepared by SCAQMD, March 2017, indicate that collectively, mobile sources account for 60 percent of the VOC, 90 percent of the NO_x emissions, 95 percent of the CO emissions and 34 percent of the directly emitted PM_{2.5}, with another 13 percent of PM_{2.5} from road dust.

The SCAQMD has divided the South Coast Air Basin into 38 air-monitoring areas with a designated ambient air monitoring station representative of each area. The project site is located in Coachella Valley Air Monitoring Area (Area 30). SCAQMD operates two air monitoring stations in SRA 30, one in Indio, California, approximately 15.19 miles northwest of the project site and the other in Palm Springs, California, approximately 36.19 miles northwest of the project site.

Table 5 summarizes 2014 through 2016 published monitoring data, which is the most recent 3-year period available. The monitoring data presented in Table 5 shows that ozone and PM₁₀ are the air pollutants of primary concern in the project area, which are detailed below. Where State and Federal emissions are exceeded, the values have been bolded. However, it should be noted that due to the air monitoring station distance from the project site, recorded air pollution levels at the air monitoring station reflect with varying degrees of accuracy, local air quality conditions at the project site.

Ozone

During the 2014 to 2016 monitoring period, the State 1-hour concentration standard for ozone has been exceeded for two days in 2014 and three days in 2015 at the Indio Station. The State 8-hour ozone standard has been exceeded between 12 and 30 days each year over the past three years at the Indio Station. The Federal 8-hour ozone standard was exceeded between 11 and 27 days each year over the past three years at the Indio Station.

Ozone is a secondary pollutant as it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO₂, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of the SCAQMD contribute to the ozone levels experienced at the monitoring station, with the more significant areas being those directly upwind.

Carbon Monoxide

CO is another important pollutant that is due mainly to motor vehicles. The Palm Springs Station did not record an exceedance of the State or Federal 1-hour or 8-hour CO standards for the last three years.

Nitrogen Dioxide

The Palm Springs Station did not record an exceedance of the State or Federal NO₂ standards for the last three years.

Particulate Matter

During the 2014 to 2016 monitoring period, the State 24-hour concentration standards for PM₁₀ have been exceeded between 13 and 15 days each year at the Indio Station. Over the past three years the Federal 24-hour standard for PM₁₀ has been exceeded between two and six days each year at the Indio Station.

The Indio Station did not record an exceedance of the Federal 24 hour standard for PM_{2.5} over the past three years. There does not appear to be a noticeable trend for PM₁₀ or PM_{2.5} in either maximum particulate concentrations or days of exceedances in the area. Particulate levels in the area are due to natural sources, grading operations, and motor vehicles.

According to the EPA, some people are much more sensitive than others to breathing fine particles (PM₁₀ and PM_{2.5}). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM₁₀ and PM_{2.5}. Other groups considered sensitive are smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive, because many breathe through their mouths during exercise.

Table 3

State and Federal Criteria Pollutant Standards

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Ozone (O ₃)	0.09 ppm/1-hour 0.07 ppm/8-hour	0.070 ppm/8-hour	(a) Pulmonary function decrements and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) Vegetation damage; (f) Property damage.
Carbon Monoxide (CO)	20.0 ppm/1-hour 9.0 ppm/8-hour	35.0 ppm/1-hour 9.0 ppm/8-hour	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; (d) Possible increased risk to fetuses.
Nitrogen Dioxide (NO ₂)	0.18 ppm/1-hour 0.03 ppm/annual	0.100 ppm/1-hour 0.053 ppm/annual	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; (c) Contribution to atmospheric discoloration.
Sulfur Dioxide (SO ₂)	0.25 ppm/1-hour 0.04 ppm/24-hour	75 ppb/1-hour	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma.
Suspended Particulate Matter (PM ₁₀)	50 µg/m ³ /24-hour 20 µg/m ³ /annual	150 µg/m ³ /24-hour	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; (c) Increased risk of premature death from heart or lung diseases in elderly.
Suspended Particulate Matter (PM _{2.5})	12 µg/m ³ / annual	35 µg/m ³ /24-hour 12 µg/m ³ /annual	
Sulfates	25 µg/m ³ /24-hour	No Federal Standards	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; (f) property damage.
Lead	1.5 µg/m ³ /30-day	1.5 µg/m ³ /3-month rolling	(a) Learning disabilities; (b) Impairment of blood formation and nerve conduction.
Visibility Reducing Particles	Extinction coefficient of 0.23 per kilometer-visibility of 10 miles or more due to particles when humidity is less than 70 percent.	No Federal Standards	Visibility impairment on days when relative humidity is less than 70 percent.

¹ Source: <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>.

Table 4

Salton Sea Air Basin Attainment Status¹

Pollutant	State Status	National Status
Ozone	Nonattainment	Nonattainment
Carbon monoxide	Attainment	Attainment
Nitrogen dioxide	Attainment	Unclassified/Attainment
Sulfur dioxide	Attainment	Attainment
PM10	Nonattainment	Nonattainment
PM2.5	Attainment	Unclassified/Attainment

¹ Source of State and Federal status: California Air Resources Board December 2015. Includes Coachella Valley portion of SSAB.

Table 5

Local Area Air Quality Monitoring Summary¹

Pollutant (Standard) ²	Year		
	2014	2015	2016
Ozone:			
Maximum 1-Hour Concentration (ppm)	0.095	0.093	0.099
Days > CAAQS (0.09 ppm)	2	0	3
Maximum 8-Hour Concentration (ppm)	0.091	0.086	0.090
Days > NAAQS (0.07 ppm)	24	11	27
Days > CAAQS (0.070 ppm)	30	12	29
Carbon Monoxide:³			
Maximum 8-Hour Concentration (ppm)	*	*	*
Days > NAAQS (9 ppm)	0	0	*
Nitrogen Dioxide:³			
Maximum 1-Hour Concentration (ppb)	46.3	41.5	42.6
Days > NAAQS (0.25 ppm)	0	0	0
Inhalable Particulates (PM10):			
Maximum 24-Hour Concentration (ug/m ³)	322.3	382.0	393.2
Days > NAAQS (150 ug/m ³)	6	3	2
Days > CAAQS (50 ug/m ³)	15	13	*
Annual Average (ug/m ³)	40.7	39.7	34.4
Ultra-Fine Particulates (PM2.5):			
Maximum 24-Hour Concentration (ug/m ³)	18.3	24.6	25.8
Days > NAAQS (35 ug/m ³)	0	0	0

¹ Source: <http://www.arb.ca.gov/adam/>

Data taken from the Indio-Jackson Street Monitoring Station unless otherwise noted.

² CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million

³ Data taken from the Palm Springs-Fire Station Monitoring Station.

* Insufficient data available to determine value.

V. AIR QUALITY STANDARDS

A. Regional Air Quality

Many air quality impacts that derive from dispersed mobile sources, which are the dominate pollution generators in the basin, often occurs hours later and miles away after photochemical processes have converted primary exhaust pollutants into secondary contaminants such as ozone. The incremental regional air quality impact of an individual project is generally very small and difficult to measure. Therefore, the SCAQMD has developed significance thresholds based on the volume of pollution emitted rather than on actual ambient air quality because the direct air quality impact of a project is not quantifiable on a regional scale. The SCAQMD CEQA Handbook states that any project in the South Coast Air Basin with daily emissions that exceed any of the identified significance thresholds should be considered as having an individually and cumulatively significant air quality impact. For the purposes to this air quality impact analysis, a regional air quality impact would be considered significant if emissions exceed the SCAQMD significance thresholds identified in Table 6.

B. Local Air Quality

Project-related construction air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. In order to assess local air quality impacts the SCAQMD has developed Localized Significant Thresholds (LSTs) to assess the project-related air emissions in the project vicinity. The SCAQMD has also provided Final Localized Significant Threshold Methodology (LST Methodology), revised July 2008, which details the methodology to analyze local air emission impacts. The Localized Significant Threshold Methodology found that the primary emissions of concern are NO₂, CO, PM₁₀, and PM_{2.5}.

The significance thresholds for the local emissions of NO₂ and CO are determined by subtracting the highest background concentration from the last three years of these pollutants from Table 5 above, from the most restrictive ambient air quality standards for these pollutants that are outlined in the Localized Significant Thresholds. Table 6 shows the Localized Significant Thresholds for NO₂, CO, and PM₁₀ and PM_{2.5}.

C. Toxic Air Contaminants

Construction

The construction equipment would emit diesel particulate matter (DPM), which is a carcinogen. However, the DPM emissions are short-term in nature. Determination of risk from DPM is considered over a 30-year exposure period because carcinogenic risk is directly related to sustain exposure. In contrast, construction activities would be intermittent and limited to a period of approximately 1.5 months. Thus, duration of construction activities would represent a fraction of the 30-year exposure period used as the basis for assessing the significance of carcinogenic risk exposure and, therefore, would not represent a source

of sustained DPM emissions. Therefore, considering the shortened time frame, exposure to DPM is anticipated to be less than significant.

Operation

The project is a proposal to close the Mecca II Landfill permanently, and outside of normal maintenance (i.e., weed abatement or installation of environmental monitoring systems) the project will cease all active landfill operations. Therefore, there are no operational activities associated with the proposed project. Furthermore, the closest sensitive receptor is in excess of 2,000 feet (~0.45 miles) from the project site. Therefore, due to the negligible maintenance and monitoring-related emissions and the distance from the site to the closest sensitive receptor, sensitive receptors would not be exposed to project-related sources of toxic air contaminants.

D. Odor Impacts

The SCAQMD CEQA Handbook states that an odor impact would occur if the proposed project creates an odor nuisance pursuant to SCAQMD Rule 402, which states:

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

If the proposed project results in a violation of Rule 402 with regards to odor impacts, then the proposed project would create a significant odor impact.

E. Greenhouse Gases

The CEQA Guidelines recommend that a lead agency consider the following when assessing the significance of impacts from GHG emissions on the environment:

- i. The extent to which the project may increase (or reduce) GHG emissions as compared to the existing environmental setting;
- ii. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;
- iii. The extent to which the project complies with regulations or requirements adopted to implement an adopted statewide, regional, or local plan for the reduction or mitigation of GHG emissions³.

³ The Governor's Office of Planning and Research recommendations include a requirement that such a plan must be adopted through a public review process and include specific requirements that reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable, notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

1. Regional - South Coast Air Quality Management District

The project is within the Salton Sea Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD).

SCAQMD Regulation XXVII, Climate Change. SCAQMD Regulation XXVII currently includes three rules:

- The purpose of Rule 2700 is to define terms and post global warming potentials.
- The purpose of Rule 2701, SoCal Climate Solutions Exchange, is to establish a voluntary program to encourage, quantify, and certify voluntary, high quality certified greenhouse gas emission reductions in the SCAQMD.
- Rule 2702, Greenhouse Gas Reduction Program, was adopted on February 6, 2009. The purpose of this rule is to create a Greenhouse Gas Reduction Program for greenhouse gas emission reductions in the SCAQMD. The SCAQMD will fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

A variety of agencies have developed greenhouse gas emission thresholds and/or have made recommendations for how to identify a threshold. However, the thresholds for projects in the jurisdiction of the SCAQMD remain in flux. The California Air Pollution Control Officers Association explored a variety of threshold approaches, but did not recommend one approach (2008). The ARB recommended approaches for setting interim significance thresholds (California Air Resources Board 2008b), in which a draft industrial project threshold suggests that non-transportation related emissions under 7,000 MTCO_{2e} per year would be less than significant; however, the ARB has not approved those thresholds and has not published anything since then. The Bay Area Air Quality Management District and the San Joaquin Valley Air Pollution Control District have both developed greenhouse gas thresholds. However, those thresholds are not applicable to the project since the project is under the jurisdiction of the SCAQMD. The SCAQMD is in the process of developing thresholds, as discussed below.

SCAQMD Threshold Development. On December 5, 2008, the SCAQMD Governing Board adopted an interim greenhouse gas significance threshold for stationary sources, rules, and plans where the SCAQMD is lead agency (SCAQMD permit threshold). The SCAQMD permit threshold consists of five tiers. However, the SCAQMD is not the lead agency for this project. Therefore, the five permit threshold tiers do not apply to the proposed project.

The SCAQMD is in the process of preparing recommended significance thresholds for greenhouse gases for local lead agency consideration (“SCAQMD draft local agency threshold”); however, the SCAQMD Board has not approved the thresholds as of the date of the Notice of Preparation. The current draft thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.
- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to a project's operational emissions. If a project's emissions are under one of the following screening thresholds, then the project is less than significant:
 - All land use types: 3,000 MTCO₂e per year
 - Based on land use type: residential: 3,500 MTCO₂e per year; commercial: 1,400 MTCO₂e per year; or mixed use: 3,000 MTCO₂e per year.
- Tier 4 has the following options:
 - Option 1: Reduce emissions from business as usual (BAU) by a certain percentage; this percentage is currently undefined
 - Option 2: Early implementation of applicable AB 32 Scoping Plan measures.
 - Option 3, 2020 target for service populations (SP), which includes residents and employees: 4.8 MTCO₂e/SP/year for projects and 6.6 MTCO₂e/SP/year for plans;
 - Option 3, 2035 target: 3.0 MTCO₂e/SP/year for projects and 4.1 MTCO₂e/SP/year for plans
- Tier 5 involves mitigation offsets to achieve target significance threshold.

The SCAQMD's draft threshold uses the Executive Order S-3-05 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap carbon dioxide concentrations at 450 ppm, thus stabilizing global climate.

Riverside County Climate Action Plan

The Climate Action plan for the County of Riverside summarizes greenhouse gas emissions and climate change issues in the Basin, greenhouse gas emissions and climate change plans and programs administered by Federal, State, and special purpose agencies, and establishes goals and policies to improve greenhouse gas emissions. These goals and policies in the Climate Action Plan include:

- 1.2 Goals To fulfill the purposes of the CAP (Climate Action Plan), the County identified the following goals to be achieved:
- Provide a list of specific actions that will reduce Greenhouse Gas (GHG) emissions, giving the highest priority to actions that provide the greatest reduction in GHG emissions and benefit to the community at the least cost.
 - Reduce emissions attributable to Riverside County to levels consistent with the target reductions of AB 32.
 - Establish a qualified reduction plan for which future development within the County can tier and thereby streamline the environmental analysis necessary under CEQA.

The County of Riverside uses screening tables for new development in order to evaluate the consistency of individual projects with the goals and reduction measures outlined in the CAP. The screening tables are setup similar to a checklist with points assigned to each option to reduce greenhouse gas emissions; if the project gathers 100 points (by including enough GHG-reducing elements), then the project is consistent with Riverside County's plan for reducing emissions. The County's development review process procedures for evaluating GHG impacts and determining significance includes (1) applying an emissions level that is determined to be less than significant for small projects, and (2) utilizing the Screening Tables to mitigate project GHG emissions that exceed the threshold level. A threshold level above 3,000 MTCO₂e is used to identify projects that require the use of Screening Tables or a project-specific technical analysis to quantify and mitigate project emissions.

Therefore, to determine whether the project is significant, this analysis uses the Riverside County GHG emissions screening threshold of 3,000 metric tons CO₂e per year.

Table 6

SCAQMD Air Quality Significance Thresholds for Coachella Valley^{1,2}

Mass Daily Thresholds		
Pollutant	Construction (lbs/day)	Operation (lbs/day)
NOx	100	100
VOC	75	75
PM10	150	150
PM2.5	55	55
SOx	150	150
CO	550	550
Lead	3	3
Toxic Air Contaminants, Odor and GHG Thresholds		
TACs	Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO ₂ e for industrial projects	
Ambient Air Quality Standards		
Pollutant	SCAQMD Standards	
NO ₂ -1-hour average	0.18 ppm (338 µg/m ³)	
PM ₁₀ -24-hour average		
Construction	10.4 µg/m ³	
Operations	2.5 µg/m ³	
PM _{2.5} -24-hour average		
Construction	10.4 µg/m ³	
Operations	2.5 µg/m ³	
SO ₂		
1-hour average	0.25 ppm	
24-hour average	0.04 ppm	
CO		
1-hour average	20 ppm (23,000 µg/m ³)	
8-hour average	9 ppm (10,000 µg/m ³)	
Lead		
30-day average	1.5 µg/m ³	
Rolling 3-month average	0.15 µg/m ³	
Quarterly average	1.5 µg/m ³	

¹ Source: <http://www.aqmd.gov/ceqa/handbook/signthres.pdf>

² Construction thresholds apply to both the South Coast Air Basin and Coachella Valley-portion of the SSAB. For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds

VI. SHORT-TERM CONSTRUCTION IMPACTS

Construction activities associated with the proposed project would have the potential to generate air emissions, toxic air contaminant emissions, and odor impacts.

The project includes those construction activities necessary to complete the closure of the Mecca II Landfill. The closure activities are proposed to be completed in two phases. Phase 1 is the closure of the landfill, while Phase 2 is that of post closure maintenance activities.

Phase 1 construction activities would include removal of landfill structures, installation of the final cover, erosion control application, and concrete drainage improvements. Approximately 100,000 cubic yards is to be excavated from on-site borrow areas and then used to cover the disposal footprint with a 2-foot thick cover of soil. A total of 50 loads of erosion control material is to be applied over the final cover. The erosion control material is anticipated to be delivered from the Coachella Valley Compost (approximately 40 miles roundtrip) at a rate of two truck trips per day per truck (two trucks are to operate per day) for a total of twelve days; however, for two of the twelve days each truck will deliver three instead of two deliveries.

In the event landfill gas reaches five percent concentration or greater a landfill gas collection system would be installed as Phase 2 of the proposed construction activities. Phase 2 activities are to include drilling of 12 vertical wells, disposal of refuse extracted from the drilling to either a transfer station or landfill, installation of the piping network, and construction of the concrete pad and cover. Phase 2 construction activities have been modeled as occurring directly after Phase 1 construction activities in order to show a worst-case analysis.

Assumptions for the phasing, duration, and required equipment for the construction of the proposed project were obtained from the project applicant. The construction activities for the proposed closure project consist of Work Items 1 through 7 for Phase 1 and Work Items 1 and 2 for Phase 2, and are described in detail in Section I, C. Project Description, of this report. The proposed project is anticipated to start construction no earlier than the fall of 2019.

A. Construction-Related Regional Impacts

The construction-related regional air quality impacts have been analyzed for both criteria pollutants and GHGs.

1. Construction-Related Criteria Pollutants Analysis

The following provides a discussion of the methodology used to calculate regional construction air emissions and an analysis of the proposed project's short-term construction emissions for the criteria pollutants.

Methodology

Typical emission rates from construction activities were obtained from CalEEMod Version 2016.3.1. CalEEMod is a computer model published by the SCAQMD for estimating air pollutant emissions. The CalEEMod program uses the EMFAC2014 computer program to calculate the emission rates specific for the Riverside County-

portion of the South Coast Air Basin for construction-related employee vehicle trips and the OFFROAD2014 computer program to calculate emission rates for heavy truck operations. EMFAC2014 and OFFROAD2014 are computer programs generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour. Using CalEEMod, the peak daily air pollutant emissions during each phase was calculated and presented below. The on-site hauling distance for Phase 1 Work Items 1 through 3 was changed to 0.5 miles, as the final cover borrow areas are located on-site at a maximum distance of 0.5 miles from the landfill area. Other than the on-site hauling distance for Phase 1 Work Items 1 through 3, the default trip lengths were used in this analysis and are based on construction survey data performed by the SCAQMD. These emissions represent the highest level of emissions for each of the construction phases in terms of air pollutant emissions. The construction emissions printouts from CalEEMod are provided in Appendix B.

SCAQMD's Rule 403 and 403.1

The Project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rules 403 and 403.1 establish these procedures. Compliance with these rules is achieved through application of standard best management practices in construction and operation activities, such as application of water or chemical stabilizers to disturbed soils, managing haul road dust by application of water, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 mph, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph and establishing a permanent and stabilizing ground cover on finished sites.

In addition, any operator applying for a grading permit, or a building permit for an activity with a disturbed surface area of more than 5,000 square feet, shall not initiate any earth-moving operations unless a Fugitive Dust Control Plan has been prepared pursuant to the provisions of the Coachella Valley Fugitive Dust Control Handbook and approved by the County. It is anticipated that this project will obtain and prepare the required Fugitive Dust Control Plan.

SCAQMD's Rule 403 and 403.1 minimum requirements require that the application of the best available dust control measures are used for all grading operations and include the application of water or other soil stabilizers in sufficient quantity to prevent the generation of visible dust plumes. Compliance with Rules 403 and 403.1 would require the use of water trucks during all phases where earth moving operations would occur.

The phases of the construction activities which have been analyzed below are: (1) grading Work Items 1 through 3 (analyzed all together as WIs 1 [mobilization] and 2 [removal of landfill structures] only involved the use of flatbed truck trips) and 2, (2) grading Work Item 4, (3) building construction Work Item 5, (4) building construction Work Items 6 & 7 (analyzed together as WI 7 [demobilization] only involved the use of flatbed trucks) for Phase 1. For Phase 2, construction activities which have been analyzed below are: (1) site preparation Work Item 1 and (2) building construction Work Item 2.

Table 7 provides a detailed description of the type of equipment, hours per day each piece of equipment will be operated for each phase of construction. For additional details on construction modeling, please see Appendix B.

Project Impacts

The construction-related criteria pollutant emissions for each Work Item are shown below in Table 8 for Phase 1 and Table 9 for Phase 2. Work Items 3 and Work Item 4 of Phase 1 may overlap; therefore, to ensure analysis of the worst-case scenario, the emissions for those tasks (Work Items 1 through 3 and Work Item 4) were added together and results shown in Table 8. As it is anticipated that the equipment for each Work Item will have Tier 3 engines or better, the mitigated values are reported. Tables 8 and 9 show that none of the analyzed criteria pollutants would exceed the regional emissions thresholds. Therefore, a less than significant regional air quality impact would occur during construction of the proposed project.

B. Construction-Related Local Impacts

Construction-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The proposed project has been analyzed for the potential local air quality impacts created from: construction-related fugitive dust and diesel emissions; from toxic air contaminants; and from construction-related odor impacts.

1. Local Air Quality Impacts from Construction

The SCAQMD has published a “Fact Sheet for Applying CalEEMod to Localized Significance Thresholds” (South Coast Air Quality Management District 2011b). CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment (not including water trucks). In order to compare CalEEMod reported emissions against the localized significance threshold lookup tables, the CEQA document should contain in its project design features or its mitigation measures the following parameters:

- (1) The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions.
- (2) The maximum number of acres disturbed on the peak day.
- (3) Any emission control devices added onto off-road equipment.
- (4) Specific dust suppression techniques used on the day of construction activity with maximum emissions.

The CalEEMod output in Appendix B show the equipment used for this analysis.

As shown in Table 10, the maximum number of acres disturbed in a day would be 4.5 acres during Work Item 1 through 3 in Phase 1 plus Work Item 4, the most intense phase of construction.

The local air quality emissions from construction were analyzed using the SCAQMD's Mass Rate Localized Significant Threshold Look-up Tables and the methodology described in Localized Significance Threshold Methodology, prepared by SCAQMD, revised July 2008. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality. The emission thresholds were calculated based on the Coachella Valley source receptor area (SRA) 30 and a disturbance of two acres per day, to be conservative, for Phase 1 Work Items 1 through 3 plus Work Item 4 (as Phase 1 Work Items 1 through 3 plus Work Item 4 represents the worst-case [4.5 acres disturbance]). According to LST Methodology, any receptor located closer than 25 meters (82 feet) shall be based on the 25 meter thresholds. The nearest sensitive receptor to the proposed project site is the single-family detached residential dwelling unit located approximately 0.45 miles (~724 meters) northwest of the proposed project site; therefore, the SCAQMD Look-up Tables for 500 meters (the maximum distance) was used. Table 11 shows the on-site emissions from the CalEEMod model for the different Work Item phases and the corresponding local emissions thresholds.

The data provided in Table 11 shows that none of the analyzed criteria pollutants during the highest emitting portions of the project would exceed the local emissions thresholds at the nearest sensitive receptors. Therefore, a less than significant local air quality impact would occur from construction of the proposed project. No mitigation is required.

2. Construction-Related Toxic Air Contaminant Impacts

The greatest potential for toxic air contaminant emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the proposed project. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of "individual cancer risk". "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of toxic air contaminants over a 30-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. Given the relatively limited number of heavy-duty construction equipment and the short-term construction schedule, the proposed project would not result in a long-term (i.e., 30 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk. Furthermore, construction-based particulate matter (PM) emissions (including diesel exhaust emissions) do not exceed any local or regional thresholds. Therefore, no significant short-term toxic air contaminant impacts would occur during construction of the proposed project.

3. Construction-Related Odor Impacts

Potential sources that may emit odors during construction activities include the application of materials such as asphalt pavement, paints and solvents and from diesel equipment emissions. The objectionable odors that may be produced during the construction process are short-term in nature and the odor emissions are

expected to cease upon the drying or hardening of the odor producing materials. Furthermore, the nearest off-site sensitive receptor to the project site is the single-family detached residential dwelling unit located approximately 0.45 miles (~724 meters) northwest of the proposed project site. Due to the short-term nature, distance to the nearby sensitive receptors, and limited amounts of odor producing materials being utilized, no significant impact related to odors would occur during construction of the proposed project. Diesel exhaust and VOCs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site and therefore should not reach an objectionable level at the nearest sensitive receptors.

Table 7

Off-Road Construction Equipment Assumptions

Equipment Type	Number	Hours/Day	Horse Power ¹	Load Factor ¹
Phase 1				
Work Items 1 through 3*				
Rubber Tired Dozers	3	8	247	0.40
Scrapers	2	8	367	0.48
Graders	1	8	187	0.41
Work Item 4*				
Rubber Tired Dozers	1	8	247	0.40
Work Item 5				
Tractors/Loaders/Backhoes	1	8	97	0.37
Work Items 6 & 7*				
Skid Steer Loaders	1	8	65	0.37
Phase 2				
Work Item 1*				
Air Compressors	1	8	78	0.48
Bucket Auger Drill Rig	1	8	221	0.50
Tractors/Loaders/Backhoes	1	8	97	0.37
Work Item 2				
Tractors/Loaders/Backhoes	1	8	97	0.37
Forklifts	1	8	89	0.20

* On-road, flatbed trucks, water trucks and dump trucks were added in as additional vendor trips per CalEEMod guidance (see CalEEMod output for details).

¹ Source: RCDWR and CalEEMod Version 2016.3.1 default values.

Table 8

Construction-Related Criteria Pollutant Emissions for Phase 1¹

Activity	Pollutant Emissions (pounds/day)					
	ROG	NOx	CO	SO ₂	PM10	PM2.5
Work Items 1 through 3						
On-Site ²	1.54	29.68	33.26	0.06	8.66	5.05
Off-Site ³	0.10	0.71	0.79	0.00	0.21	0.06
Total for WI 1 through 3	1.64	30.39	34.05	0.07	8.87	5.11
Work Item 4						
On-Site ²	0.21	4.04	4.53	0.01	3.16	1.52
Off-Site ³	0.05	1.30	0.31	0.00	0.12	0.04
Total for WI 4	0.26	5.35	4.84	0.01	3.28	1.55
Work Item 5						
On-Site ²	0.08	1.73	2.34	0.00	0.12	0.12
Off-Site ³	1.91	1.21	15.37	0.04	3.89	1.05
Total for WI 5	1.98	2.94	17.71	0.04	4.01	1.17
Work Items 6 & 7						
On-Site ²	0.05	1.16	1.57	0.00	0.08	0.08
Off-Site ³	0.03	0.34	0.19	0.00	0.05	0.02
Total for WI 6 & 7	0.08	1.50	1.76	0.00	0.13	0.10
Total for Overlapping Phases WI 1-3 and 4	1.89	35.74	38.89	0.08	12.15	6.66
SCAQMD Thresholds	75	100	550	150	150	55
Exceeds Thresholds	no	no	no	no	no	no

¹ Source: CalEEMod Version 2016.3.1, mitigated emissions (see note below).

² On-site emissions from equipment operated on-site that is not operated on public roads.

³ Off-site emissions from equipment operated on public roads.

Note : All equipment for Phase 1 Work Items 1 through 7 will have Tier 3 engines; therefore mitigated values were reported. Work Items 1 and 2 may overlap and Work Items 3 and 4 may overlap.

Table 9

Construction-Related Criteria Pollutant Emissions for Phase 2¹

Activity	Pollutant Emissions (pounds/day)					
	ROG	NOx	CO	SO ₂	PM10	PM2.5
Work Item 1						
On-Site ²	0.39	8.07	9.85	0.02	3.04	0.70
Off-Site ³	0.05	0.14	0.37	0.00	0.10	0.03
Total for WI 1	0.44	8.20	10.23	0.02	3.14	0.73
Work Item 2						
On-Site ²	0.11	2.59	3.50	0.00	0.18	0.18
Off-Site ³	1.91	1.21	15.37	0.04	3.89	1.05
Total for WI 2	2.02	3.80	18.87	0.04	4.07	1.23
SCAQMD Thresholds	75	100	550	150	150	55
Exceeds Thresholds	no	no	no	no	no	no

¹ Source: CalEEMod Version 2016.3.1, mitigated emissions (see note below).

² On-site emissions from equipment operated on-site that is not operated on public roads.

³ Off-site emissions from equipment operated on public roads.

Note : All equipment for Phase 2 Work Items 1 through 2 will have Tier 3 engines; therefore mitigated values were reported. None of the Work Items will overlap.

Table 10

Maximum Number of Acres Disturbed Per Day¹

Activity	Equipment	Number	Acres/8hr-day	Total Acres
WIs 1-3: Hauling of equipment to site, temporary removal of fencing, removal of landfill structures, demolishing or transporting of gate fee, soil excavation and placement, and erosion control.	Graders	1	0.5	0.5
	Rubber Tired Dozers	3	0.5	1.5
	Scrapers	2	1	2
Total per phase		-	-	4
WI 4: Application of erosion control material over the final cover for erosion control	Rubber Tired Dozers	1	0.5	0.5
Total per phase		-	-	0.5
Grand total of acres disturbed				4.5

¹ Source: South Coast AQMD, Fact Sheet for Applying CalEEMod to Localized Significance Thresholds.

Table 11

Local Construction Emissions at the Nearest Sensitive Receptors¹

Phase 1	On-Site Pollutant Emissions (pounds/day)			
	NOx	CO	PM10	PM2.5
Work Items 1 through 3	30.39	34.05	8.87	5.11
Work Item 4	5.35	4.84	3.28	1.55
Work Item 5	2.94	17.71	4.01	1.17
Work Items 6 & 7	1.50	1.76	0.13	0.10
Work Items 1 through 3 plus Work Item 4 ²	35.74	38.89	12.15	6.66
SCAQMD Threshold for 500 meters (1,640 feet)³	769	26,212	223	112
Exceeds Threshold?	no	no	no	no

¹ Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for 2 acres (for Phase 1, the most equipment-intensive phase) at a distance of 500 meters in Coachella Valley.

² As Work Items 1-3 and Work Item 4 may overlap and have activity in the same location, on-site emissions for those Work Items were also added together and compared to the LSTs.

³ The estimated distance from the project's property line to the nearest sensitive receptor (single-family detached residential dwelling unit) northwest of the project site is 724 meters (2,375 feet); therefore, to be conservative, the project's on-site emissions were compared to the 500 meter threshold.

VII. GLOBAL CLIMATE CHANGE ANALYSIS

The proposed project would consist of the closure of an existing landfill. No operational GHG emissions will be generated from the proposed project; and therefore, an operational GHG analysis is not included in this report. However, the proposed project is anticipated to generate GHG emissions from construction/closure activities. The following provides the methodology used to calculate the construction-related GHG emissions, the project impacts and a consistency analysis of the proposed project with any applicable GHG reduction plans, policies or regulations.

A. Methodology

The CalEEMod Version 2016.3.1 was used to calculate the GHG emissions from the proposed project. The project's emissions were compared to the SCAQMD draft threshold and Riverside County Screening threshold of 3,000 metric tons CO₂e per year. Each source of GHG emissions is described in greater detail below.

1. Construction

The construction-related GHG emissions were also included in the analysis and were based on a 30 year amortization rate as recommended in the SCAQMD GHG Working Group meeting on November 19, 2009. The construction emissions from the off-site improvements were also included in the construction totals. The construction-related GHG emissions were calculated by CalEEMod and detailed above in Section VI. The CalEEMod annual GHG emissions printouts are provided in Appendix C.

B. Project Greenhouse Gas Emissions

The proposed project's construction-related GHG emissions have been calculated based on the parameters detailed above. A summary of the results is shown below in Table 12 and the CalEEMod model run for the proposed project is provided in Appendix C.

The data provided in Table 12 shows that the GHG emission generated by the construction of the proposed project, amortized over 30 years, would be 2.58 MTCO₂e per year. Even when the construction-related emissions are not amortized, Phase 1 construction emissions will only generate 62.16 MTCO₂e and Phase 2 construction emissions will only generate 15.32 MTCO₂e; for a grand total of 77.48 MTCO₂e.

According to the thresholds of significance established above in Section 5.0, a cumulative global climate change impact would occur if the GHG emissions created from the on-going operations of the proposed project would exceed the tier 3 SCAQMD draft screening threshold of 3,000 metric tons per year of CO₂e. Therefore, construction of the proposed project would not create a significant cumulative impact to global climate change.

C. Greenhouse Gas Plan Consistency

The proposed project could have the potential to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse

gases. The applicable plan for the proposed project is the County of Riverside Climate Action Plan, which includes goals and policies such as those pertaining to energy and water use reduction, promotion of green building measures, waste reduction, and reduction in vehicle miles traveled that are applicable to the proposed project.

As stated above, the GHG emissions generated by the construction of the proposed project would not exceed the SCAQMD and Riverside County CAP Screening GHG threshold of 3,000 metric tons per year of CO₂e. Furthermore, as the proposed project is the closure of the proposed land fill, and have negligible operational emissions, it would not hinder the State's ability to achieve AB 32's goal of achieving 1990 levels of GHG emissions by 2020.

SB-32

SB-32 requires the State board to ensure that statewide greenhouse gas emissions are reduced to 40% below the 1990 level by 2030. SCAQMD's thresholds used Executive Order S-3-05 goal as the basis for deriving the screening level. The California Governor issued Executive Order S-3-05, GHG Emission, in June 2005, which established the following reduction targets:

- 2010: Reduce greenhouse gas emissions to 2000 levels
- 2020: Reduce greenhouse gas emissions to 1990 levels
- 2050: Reduce greenhouse gas emissions to 80 percent below 1990 levels.

As the SCAQMD uses EO S-3-05 as the basis for their GHG emissions screening level, and EO S-3-05 includes the long-term goal to reduce greenhouse gas emissions to 80 percent below 1990 levels by 2050, the project would also be consistent with the goal of SB 32 (to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030). Therefore, projects that meet the current interim emissions targets/thresholds established by SCAQMD (as described in Section V, Air Quality Standards) would also be on track to meet the reduction targets for 2030.

At a level of 2.58 MTCO₂e per year, the project's construction-related GHG emissions fall well below the SCAQMD draft local agency tier 3 threshold of 3,000 MTCO₂e per year for all land use types and is in compliance with the reduction goals of the County's Climate Action Plan, AB-32 and SB-32. Therefore, the proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Table 12

Project-Related Greenhouse Gas Emissions¹

Category	Greenhouse Gas Emissions (Metric Tons/Year)					
	Bio-CO2	NonBio-CO ₂	CO ₂	CH ₄	N ₂ O	CO ₂ e
Construction Phase 1 ²	0.00	2.06	2.06	0.00	0.00	2.07
Construction Phase 2 ²	0.00	0.51	0.51	0.00	0.00	0.51
Total Emissions (Amortized over 30-years)						2.58
SCAQMD and Riverside County CAP Draft Screening Threshold						3,000
Exceeds Threshold?						no

¹ Source: CalEEMod Version 2016.3.1.

² Construction GHG emissions based on a 30 year amortization rate. Mitigated construction emissions (as all equipment will be Tier 3).

VIII. AIR QUALITY COMPLIANCE

The California Environmental Quality Act (CEQA) requires a discussion of any inconsistencies between a proposed project and applicable General Plans and Regional Plans (CEQA Guidelines Section 15125). The regional plan that applies to the proposed project includes the SCAQMD Air Quality Management Plan (AQMP). Therefore, this section discusses any potential inconsistencies of the proposed project with the AQMP.

The purpose of this discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the proposed project would interfere with the region's ability to comply with Federal and State air quality standards. If the decision-makers determine that the proposed project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD CEQA Handbook states that "New or amended General Plan Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP". Strict consistency with all aspects of the plan is usually not required. A proposed project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

- (1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
- (2) Whether the project will exceed the assumptions in the AQMP in 2016 or increments based on the year of project buildout and phase.

Both of these criteria are evaluated in the following sections.

A. Criterion 1 - Increase in the Frequency or Severity of Violations

Based on the air quality modeling analysis contained in this Air Analysis, short-term construction impacts will not result in significant impacts based on the SCAQMD regional and local thresholds of significance. The project will not generate any operational-related emissions.

Therefore, the proposed project is not anticipated to contribute to the exceedance of any air pollutant concentration standards and is found to be consistent with the AQMP for the first criterion.

B. Criterion 2 - Exceed Assumptions in the AQMP?

Consistency with the AQMP assumptions is determined by performing an analysis of the proposed project with the assumptions in the AQMP. The emphasis of this criterion is to insure that the analyses conducted for the proposed project are based on the same forecasts as the AQMP. The 2016-2040 Regional Transportation/Sustainable Communities Strategy, prepared by SCAG, 2016, includes chapters on: the challenges in a changing

region, creating a plan for our future, and the road to greater mobility and sustainable growth. These chapters currently respond directly to Federal and State requirements placed on SCAG. Local governments are required to use these as the basis of their plans for purposes of consistency with applicable regional plans under CEQA. For this project, the County of Riverside General Plan defines the assumptions that are represented in the AQMP.

The project site is currently designated as Public Facilities in the Eastern Coachella Valley Area Plan Land Use Plan. The proposed landfill closure project is consistent with the current land use designation and would not require a General Plan Amendment or zone change. Therefore, the proposed project would not result in an inconsistency with the current land use designation. Therefore, the proposed project is not anticipated to exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the second criterion.

Based on the above, the proposed project would not conflict with the implementation of the SCAQMD AQMP. Therefore, impacts are considered to be less than significant.

IX. MITIGATION MEASURES

A. Standard Conditions

The proposed project will be required to comply with the following regulatory conditions from the SCAQMD and State of California (State).

1. South Coast Air Quality Management District Rules

Under Federal and State law, the SCAQMD is under legal obligation to enforce air pollution regulations. These regulations are primarily meant to ensure that the ambient air meets Federal and State air quality standards. SCAQMD also has broad authority to regulate toxic and hazardous air emissions, and these regulations are enforced in the same manner as those that pertain to the ambient air quality standards.

Source Specific Requirements

Rule 402 – Nuisance

Rule 402 prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which causes injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. Compliance with Rule 402 will reduce local air quality and odor impacts to nearby sensitive receptors.

Rule 403 and 403.1 – Fugitive Dust

Rule 403 governs emissions of fugitive dust during construction and operational activities and requires that no person shall cause or allow the emissions of fugitive dust such that dust remains visible in the atmosphere beyond the property line or the dust emission exceeds 20 percent opacity, if the dust is from the operation of a motorized vehicle. Compliance with this rule is achieved through application of standard Best Available Control Measures, which include but are not limited to the measures below. Compliance with these rules would reduce local air quality impacts to nearby sensitive receptors.

- Utilize either a pad of washed gravel 50 feet long, 100 feet of paved surface, a wheel shaker, or a wheel washing device to remove material from vehicle tires and undercarriages before leaving project site.
- Do not allow any track out of material to extend more than 25 feet onto a public roadway and remove all track out at the end of each workday.
- Restrict traffic speeds on all unpaved roads to 15 miles per hour or less.
- The facility operator shall prepare a Fugitive Dust Control Plan for project construction and operations.

- The facility operator shall conduct on-site wind monitoring during project construction and operations to suspend or curtail all grading and/or organic materials management activities when wind speeds exceed 25 miles per hour.
- The facility operator shall conduct watering as necessary to prevent visible emissions and/or apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive areas.

2. State of California Rules

The following lists the State of California rules that are applicable to all industrial projects in the State. If specialized uses or stationary emissions sources are developed on the project site, additional rules may apply.

CARB Regulations for In-Use Off-Road Diesel Vehicles

On July 26, 2007, the California Air Resources Board (CARB) adopted a regulation that amended Sections 2449, 2449.1, and 2449.2 of the California Code of Regulations in order to reduce diesel particulate matter (DPM) and NOx emissions from in-use off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and industrial operations. The regulation limits idling to no more than five consecutive minutes, requires reporting and labeling, and requires disclosure of the regulation upon vehicle sale. Performance requirements of the rule are based on a fleet's average NOx emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirement making the first compliance deadline January 1, 2014 for large fleets (over 5,000 horsepower), 2017 for medium fleets (2,501-5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less).

Note: The Off-Road Regulation imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; requires all vehicles to be reported to ARB (using the Diesel Off-Road Online Reporting System, DOORS) and labeled; restricts the adding of older vehicles into fleets; and requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies, VDECS (i.e., exhaust retrofits).

CARB Resolution 08-43 for On-Road Diesel Truck Fleets

On December 12, 2008 the CARB adopted Resolution 08-43, which limits NOx, PM10 and PM2.5 emissions from on-road diesel truck fleets that operate in California. On October 12, 2009 Executive Order R-09-010 was adopted that codified Resolution 08-43 into Section 2025, title 13 of the California Code of Regulations. This regulation requires that by the year 2023 all commercial diesel trucks that operate in California shall meet model year 2010 (Tier 4 Final) or latter emission standards. In the interim period, this regulation provides annual interim targets for fleet owners to meet. This regulation also provides a few exemptions including a onetime per year 3-day pass for trucks registered outside of California. All on-road diesel trucks operating on the project site will be required to comply with Resolution 08-43.

B. Construction Measures

Adherence to SCAQMD Rules 403 and 403.1 is required and the project will be required to obtain and prepare a Fugitive Dust Control Plan.

None required.

C. Operational Measures

None required.

X. REFERENCES

California Air Pollution Control Officers Association

2009 Health Risk Assessments for Proposed Land Use Projects

California Air Resources Board

2008 Resolution 08-43

2008 Airborne Toxic Control Measure for in-use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets, Section 2477 of Division 3, Chapter 9, Title 13, California Code of Regulations

2008 Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act

2008 ARB Recommended Interim Risk Management Policy for Inhalation-Based Residential Cancer Risk – Frequently Asked Questions

2008 Climate Change Scoping Plan, a framework for change.

2011 Supplement to the AB 32 Scoping Plan Functional Equivalent Document

2013 The California Almanac of Emissions and Air Quality 2013 Edition

2014 First Update to the Climate Change Scoping Plan, Building on the Framework Pursuant to AB32, the California Global Warming Solutions Act of 2006. May

2017 Historical Air Quality, Top 4 Summary

California Department of Conservation

2000 A General Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos

County of Riverside

2008 Comprehensive Update to the General Plan

2015 County of Riverside Climate Action Plan. December.

2015 Eastern Coachella Valley Area Plan. December.

Intergovernmental Panel on Climate Change (IPCC).

2014 IPCC Fifth Assessment Report, Climate Change 2014: Synthesis Report

Governor's Office of Planning and Research

2008 CEQA and Climate: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review

2009 CEQA Guideline Sections to be Added or Amended

Office of Environmental Health Hazard Assessment

2015 Air Toxics Hot Spots Program Risk Assessment Guidelines. February.

South Coast Air Quality Management District

1993 CEQA Air Quality Handbook

2003 Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis

2005 Rule 403 Fugitive Dust

2007 2007 Air Quality Management Plan

2008 Final Localized Significance Threshold Methodology, Revised

2012 Final 2012 Air Quality Management Plan

2014 MATES-IV Multiple Air Toxics Exposure Study in the South Coast Air Basin. October.

2016 2016 Air Quality Management Plan

2017 Historical Data by Year. 2013, 2014 and 2015 Air Quality Data Tables. Source: <http://www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year>

Southern California Association of Governments

2012 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy

U.S. Environmental Protection Agency (EPA)

2017 Understanding Global Warming Potentials
(Source: <https://www.epa.gov/ghgemissions/understanding-global-warming-potentials>)

U.S. Geological Survey

2011 Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California

APPENDICES

Appendix A – Glossary of Terms

Appendix B – CalEEMod Model Daily Emissions Printouts

Appendix C – CalEEMod Model Annual Emissions Printouts

APPENDIX A

Glossary of Terms

AQMP	Air Quality Management Plan
CAAQS	California Ambient Air Quality Standards
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFCs	Chlorofluorocarbons
CH ₄	Methane
CNG	Compressed natural gas
CO	Carbon monoxide
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
DPM	Diesel particulate matter
EPA	U.S. Environmental Protection Agency
GHG	Greenhouse gas
GWP	Global warming potential
HFCs	Hydrofluorocarbons
IPCC	International Panel on Climate Change
LST	Localized Significant Thresholds
MTCO ₂ e	Metric tons of carbon dioxide equivalent
MMTCO ₂ e	Million metric tons of carbon dioxide equivalent
MPO	Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
NO _x	Nitrogen Oxides
NO ₂	Nitrogen dioxide
N ₂ O	Nitrous oxide
O ₃	Ozone
OPR	Governor's Office of Planning and Research
PFCs	Perfluorocarbons
PM	Particle matter
PM ₁₀	Particles that are less than 10 micrometers in diameter
PM _{2.5}	Particles that are less than 2.5 micrometers in diameter
PMI	Point of maximum impact
PPB	Parts per billion
PPM	Parts per million
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SSAB	Salton Sea Air Basin
SF ₆	Sulfur hexafluoride

SIP	State Implementation Plan
SOx	Sulfur Oxides
TAC	Toxic air contaminants
UNFCC	United Nations Framework Convention on Climate Change
VOC	Volatile organic compounds
WARM	Waste Reduction Model

APPENDIX B

CalEEMod Model Daily Emissions Printouts

7108 Mecca II Landfill - Phase 1 - CONSTRUCTION ANALYSIS ONLY - Riverside-Salton Sea County, Summer

7108 Mecca II Landfill - Phase 1 - CONSTRUCTION ANALYSIS ONLY
Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	19.00	Acre	19.00	827,640.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2019
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MW hr)	1270.9	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction Analysis Only- project is the closure and post closure maintenance of a landfill, no operational activities are included as part of the project's scope.

Land Use - Landfill is ~19 acres.

Construction Phase - Construction to begin no earlier than fall 2019. Cnst Phases- WI1-3 (gradg10/1/19-10/22/19), WI4 (gradg10/23/19-11/7/19), WI5 (blg con11/8/19-11/13/19), WI6&7 (blg con11/14/19-11/19/19).

Off-road Equipment -

Off-road Equipment - Equipment for WI5- 1 backhoe for 8 hours/day.

Off-road Equipment - Equipment for WI 6&7- 1 skid steer with auger attachment (skid steer loaders) for 8 hours/day.

Off-road Equipment - Equipment for WI 1 through 3- 2 dozers (rubber tired dozers), 2 scrapers, 1 rubber tired dozer, 1 motor grader (grader) all working for 8 hours/day.

Off-road Equipment - Equipment for WI4- 1 Dozer (rubber tired dozer) for 8 hours/day.

Trips and VMT - WI1-3: 5 on-road fltbd trcks & 1 H2O trck (on-site borrow areas w/ max distance of 0.5 miles), WI4: 2 on-road dmp trcks (50 loads - ~20 miles from CVC to site), & WI6&7: 3 on-road fltbd trcks.

Grading - Landfill area is 19 ac. WI3 is the excavation of 100,000 CY of soil from on-site borrow areas; therefore, site is balanced.

Energy Use -

Land Use Change -

Construction Off-road Equipment Mitigation - Equipment is assumed to have Tier 3 engine levels.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	300.00	4.00
tblConstructionPhase	NumDays	30.00	16.00
tblConstructionPhase	NumDays	30.00	12.00
tblConstructionPhase	NumDays	10.00	4.00
tblGrading	AcresOfGrading	40.00	19.00
tblGrading	AcresOfGrading	0.00	19.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripNumber	0.00	50.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	136.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	6.1222	69.3380	31.5983	0.0657	19.5267	2.9951	22.5217	10.1208	2.7556	12.8764	0.0000	6,517.5391	6,517.5391	1.9774	0.0000	6,566.9751
Maximum	6.1222	69.3380	31.5983	0.0657	19.5267	2.9951	22.5217	10.1208	2.7556	12.8764	0.0000	6,517.5391	6,517.5391	1.9774	0.0000	6,566.9751

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	1.9830	30.3888	34.0487	0.0657	7.7381	1.1316	8.8696	3.9801	1.1313	5.1114	0.0000	6,517.5391	6,517.5391	1.9774	0.0000	6,566.9751
Maximum	1.9830	30.3888	34.0487	0.0657	7.7381	1.1316	8.8696	3.9801	1.1313	5.1114	0.0000	6,517.5391	6,517.5391	1.9774	0.0000	6,566.9751

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	67.61	56.17	-7.75	0.00	60.37	62.22	60.62	60.67	58.95	60.30	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading WI 1 through 3	Grading	10/1/2019	10/22/2019	5	16	
2	Grading WI 4	Grading	10/23/2019	11/7/2019	5	12	
3	Building Construction WI 5	Building Construction	11/8/2019	11/13/2019	5	4	
4	Building Construction WI 6 & 7	Site Preparation	11/14/2019	11/19/2019	5	4	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 19

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading WI 1 through 3	Cranes	0	7.00	231	0.29
Grading WI 1 through 3	Excavators	0	8.00	158	0.38
Grading WI 1 through 3	Forklifts	0	8.00	89	0.20
Grading WI 1 through 3	Generator Sets	0	8.00	84	0.74
Grading WI 1 through 3	Graders	1	8.00	187	0.41
Grading WI 1 through 3	Rubber Tired Dozers	3	8.00	247	0.40
Grading WI 1 through 3	Scrapers	2	8.00	367	0.48
Grading WI 1 through 3	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading WI 1 through 3	Welders	0	8.00	46	0.45
Grading WI 4	Concrete/Industrial Saws	0	8.00	81	0.73
Grading WI 4	Excavators	0	8.00	158	0.38
Grading WI 4	Graders	0	8.00	187	0.41
Grading WI 4	Rubber Tired Dozers	1	8.00	247	0.40
Grading WI 4	Scrapers	0	8.00	367	0.48

Grading WI 4	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction WI 5	Cranes	0	7.00	231	0.29
Building Construction WI 5	Excavators	0	8.00	158	0.38
Building Construction WI 5	Forklifts	0	8.00	89	0.20
Building Construction WI 5	Generator Sets	0	8.00	84	0.74
Building Construction WI 5	Graders	0	8.00	187	0.41
Building Construction WI 5	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction WI 5	Scrapers	0	8.00	367	0.48
Building Construction WI 5	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction WI 5	Welders	0	8.00	46	0.45
Building Construction WI 6 & 7	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction WI 6 & 7	Skid Steer Loaders	1	8.00	65	0.37
Building Construction WI 6 & 7	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading WI 1 through 3	6	15.00	6.00	0.00	14.60	6.20	0.50	LD_Mix	HDT_Mix	HHDT
Grading WI 4	1	3.00	2.00	50.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction WI 5	1	348.00	0.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction WI 6 & 7	1	3.00	3.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Grading WI 1 through 3 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.3256	0.0000	19.3256	10.0667	0.0000	10.0667			0.0000			0.0000
Off-Road	6.0210	68.6305	30.8132	0.0625		2.9894	2.9894		2.7502	2.7502		6,193.5416	6,193.5416	1.9596		6,242.5309
Total	6.0210	68.6305	30.8132	0.0625	19.3256	2.9894	22.3150	10.0667	2.7502	12.8169		6,193.5416	6,193.5416	1.9596		6,242.5309

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0190	0.6571	0.1228	1.4700e-003	0.0345	4.6900e-003	0.0392	9.9500e-003	4.4900e-003	0.0144		154.5060	154.5060	0.0131		154.8340
Worker	0.0822	0.0504	0.6623	1.7000e-003	0.1665	1.0300e-003	0.1676	0.0442	9.5000e-004	0.0451		169.4915	169.4915	4.7500e-003		169.6102
Total	0.1012	0.7074	0.7851	3.1700e-003	0.2011	5.7200e-003	0.2068	0.0541	5.4400e-003	0.0595		323.9975	323.9975	0.0179		324.4442

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.5370	0.0000	7.5370	3.9260	0.0000	3.9260			0.0000			0.0000
Off-Road	1.5352	29.6814	33.2636	0.0625		1.1258	1.1258		1.1258	1.1258	0.0000	6,193.5416	6,193.5416	1.9596		6,242.5309
Total	1.5352	29.6814	33.2636	0.0625	7.5370	1.1258	8.6628	3.9260	1.1258	5.0518	0.0000	6,193.5416	6,193.5416	1.9596		6,242.5309

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0190	0.6571	0.1228	1.4700e-003	0.0345	4.6900e-003	0.0392	9.9500e-003	4.4900e-003	0.0144		154.5060	154.5060	0.0131		154.8340
Worker	0.0822	0.0504	0.6623	1.7000e-003	0.1665	1.0300e-003	0.1676	0.0442	9.5000e-004	0.0451		169.4915	169.4915	4.7500e-003		169.6102
Total	0.1012	0.7074	0.7851	3.1700e-003	0.2011	5.7200e-003	0.2068	0.0541	5.4400e-003	0.0595		323.9975	323.9975	0.0179		324.4442

3.3 Grading WI 4 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					7.7012	0.0000	7.7012	3.4915	0.0000	3.4915			0.0000				0.0000
Off-Road	1.1346	12.0744	4.2841	8.5200e-003		0.5887	0.5887		0.5416	0.5416		845.4285	845.4285	0.2675			852.1156
Total	1.1346	12.0744	4.2841	8.5200e-003	7.7012	0.5887	8.2899	3.4915	0.5416	4.0332		845.4285	845.4285	0.2675			852.1156

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0234	1.0644	0.1280	3.2100e-003	0.0729	3.8500e-003	0.0767	0.0200	3.6800e-003	0.0237		339.9966	339.9966	0.0211			340.5247
Vendor	6.3300e-003	0.2190	0.0409	4.9000e-004	0.0115	1.5600e-003	0.0131	3.3200e-003	1.5000e-003	4.8100e-003		51.5020	51.5020	4.3700e-003			51.6114
Worker	0.0164	0.0101	0.1325	3.4000e-004	0.0333	2.1000e-004	0.0335	8.8300e-003	1.9000e-004	9.0200e-003		33.8983	33.8983	9.5000e-004			33.9220
Total	0.0462	1.2935	0.3014	4.0400e-003	0.1177	5.6200e-003	0.1233	0.0321	5.3700e-003	0.0375		425.3969	425.3969	0.0264			426.0581

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0035	0.0000	3.0035	1.3617	0.0000	1.3617			0.0000			0.0000
Off-Road	0.2091	4.0427	4.5306	8.5200e-003		0.1533	0.1533		0.1533	0.1533	0.0000	845.4285	845.4285	0.2675		852.1156
Total	0.2091	4.0427	4.5306	8.5200e-003	3.0035	0.1533	3.1568	1.3617	0.1533	1.5150	0.0000	845.4285	845.4285	0.2675		852.1156

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0234	1.0644	0.1280	3.2100e-003	0.0729	3.8500e-003	0.0767	0.0200	3.6800e-003	0.0237		339.9966	339.9966	0.0211		340.5247
Vendor	6.3300e-003	0.2190	0.0409	4.9000e-004	0.0115	1.5600e-003	0.0131	3.3200e-003	1.5000e-003	4.8100e-003		51.5020	51.5020	4.3700e-003		51.6114
Worker	0.0164	0.0101	0.1325	3.4000e-004	0.0333	2.1000e-004	0.0335	8.8300e-003	1.9000e-004	9.0200e-003		33.8983	33.8983	9.5000e-004		33.9220
Total	0.0462	1.2935	0.3014	4.0400e-003	0.1177	5.6200e-003	0.1233	0.0321	5.3700e-003	0.0375		425.3969	425.3969	0.0264		426.0581

3.4 Building Construction WI 5 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	0.2328	2.3374	2.3027	3.1100e-003		0.1560	0.1560		0.1436	0.1436		307.5419	307.5419	0.0973			309.9744
Total	0.2328	2.3374	2.3027	3.1100e-003		0.1560	0.1560		0.1436	0.1436		307.5419	307.5419	0.0973			309.9744

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	1.9070	1.1687	15.3660	0.0395	3.8634	0.0239	3.8873	1.0246	0.0220	1.0466		3,932.2030	3,932.2030	0.1101			3,934.9562
Total	1.9070	1.1687	15.3660	0.0395	3.8634	0.0239	3.8873	1.0246	0.0220	1.0466		3,932.2030	3,932.2030	0.1101			3,934.9562

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0760	1.7344	2.3421	3.1100e-003		0.1215	0.1215		0.1215	0.1215	0.0000	307.5419	307.5419	0.0973		309.9744
Total	0.0760	1.7344	2.3421	3.1100e-003		0.1215	0.1215		0.1215	0.1215	0.0000	307.5419	307.5419	0.0973		309.9744

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.9070	1.1687	15.3660	0.0395	3.8634	0.0239	3.8873	1.0246	0.0220	1.0466		3,932.2030	3,932.2030	0.1101		3,934.9562
Total	1.9070	1.1687	15.3660	0.0395	3.8634	0.0239	3.8873	1.0246	0.0220	1.0466		3,932.2030	3,932.2030	0.1101		3,934.9562

3.5 Building Construction WI 6 & 7 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000				0.0000
Off-Road	0.0846	1.1265	1.3902	2.0700e-003		0.0516	0.0516		0.0475	0.0475		204.6127	204.6127	0.0647			206.2311
Total	0.0846	1.1265	1.3902	2.0700e-003	0.0000	0.0516	0.0516	0.0000	0.0475	0.0475		204.6127	204.6127	0.0647			206.2311

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	9.4900e-003	0.3285	0.0614	7.3000e-004	0.0173	2.3400e-003	0.0196	4.9700e-003	2.2400e-003	7.2200e-003		77.2530	77.2530	6.5600e-003			77.4170
Worker	0.0164	0.0101	0.1325	3.4000e-004	0.0333	2.1000e-004	0.0335	8.8300e-003	1.9000e-004	9.0200e-003		33.8983	33.8983	9.5000e-004			33.9220
Total	0.0259	0.3386	0.1939	1.0700e-003	0.0506	2.5500e-003	0.0531	0.0138	2.4300e-003	0.0162		111.1513	111.1513	7.5100e-003			111.3391

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0509	1.1622	1.5694	2.0700e-003		0.0814	0.0814		0.0814	0.0814	0.0000	204.6127	204.6127	0.0647		206.2311
Total	0.0509	1.1622	1.5694	2.0700e-003	0.0000	0.0814	0.0814	0.0000	0.0814	0.0814	0.0000	204.6127	204.6127	0.0647		206.2311

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.4900e-003	0.3285	0.0614	7.3000e-004	0.0173	2.3400e-003	0.0196	4.9700e-003	2.2400e-003	7.2200e-003		77.2530	77.2530	6.5600e-003		77.4170
Worker	0.0164	0.0101	0.1325	3.4000e-004	0.0333	2.1000e-004	0.0335	8.8300e-003	1.9000e-004	9.0200e-003		33.8983	33.8983	9.5000e-004		33.9220
Total	0.0259	0.3386	0.1939	1.0700e-003	0.0506	2.5500e-003	0.0531	0.0138	2.4300e-003	0.0162		111.1513	111.1513	7.5100e-003		111.3391

7108 Mecca II Landfill - Phase 1 - CONSTRUCTION ANALYSIS ONLY - Riverside-Salton Sea County, Winter

7108 Mecca II Landfill - Phase 1 - CONSTRUCTION ANALYSIS ONLY

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	19.00	Acre	19.00	827,640.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2019
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MW hr)	1270.9	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction Analysis Only- project is the closure and post closure maintenance of a landfill, no operational activities are included as part of the project's scope.

Land Use - Landfill is ~19 acres.

Construction Phase - Construction to begin no earlier than fall 2019. Cnst Phases- WI1-3 (gradg10/1/19-10/22/19), WI4 (gradg10/23/19-11/7/19), WI5 (blg con11/8/19-11/13/19), WI6&7 (blg con11/14/19-11/19/19).

Off-road Equipment -

Off-road Equipment - Equipment for WI5- 1 backhoe for 8 hours/day.

Off-road Equipment - Equipment for WI 6&7- 1 skid steer with auger attachment (skid steer loaders) for 8 hours/day.

Off-road Equipment - Equipment for WI 1 through 3- 2 dozers (rubber tired dozers), 2 scrapers, 1 rubber tired dozer, 1 motor grader (grader) all working for 8 hours/day.

Off-road Equipment - Equipment for WI4- 1 Dozer (rubber tired dozer) for 8 hours/day.

Trips and VMT - WI1-3: 5 on-road fltbd trcks & 1 H2O trck (on-site borrow areas w/ max distance of 0.5 miles), WI4: 2 on-road dmp trcks (50 loads - ~20 miles from CVC to site), & WI6&7: 3 on-road fltbd trcks.

Grading - Landfill area is 19 ac. WI3 is the excavation of 100,000 CY of soil from on-site borrow areas; therefore, site is balanced.

Energy Use -

Land Use Change -

Construction Off-road Equipment Mitigation - Equipment is assumed to have Tier 3 engine levels.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	300.00	4.00
tblConstructionPhase	NumDays	30.00	16.00
tblConstructionPhase	NumDays	30.00	12.00
tblConstructionPhase	NumDays	10.00	4.00
tblGrading	AcresOfGrading	40.00	19.00
tblGrading	AcresOfGrading	0.00	19.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripNumber	0.00	50.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	136.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	6.1213	69.3368	31.4938	0.0655	19.5267	2.9951	22.5218	10.1208	2.7557	12.8765	0.0000	6,493.8885	6,493.8885	1.9783	0.0000	6,543.3460
Maximum	6.1213	69.3368	31.4938	0.0655	19.5267	2.9951	22.5218	10.1208	2.7557	12.8765	0.0000	6,493.8885	6,493.8885	1.9783	0.0000	6,543.3460

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	1.9383	30.3877	33.9442	0.0655	7.7381	1.1316	8.8697	3.9801	1.1313	5.1114	0.0000	6,493.8885	6,493.8885	1.9783	0.0000	6,543.3460
Maximum	1.9383	30.3877	33.9442	0.0655	7.7381	1.1316	8.8697	3.9801	1.1313	5.1114	0.0000	6,493.8885	6,493.8885	1.9783	0.0000	6,543.3460

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	68.34	56.17	-7.78	0.00	60.37	62.22	60.62	60.67	58.95	60.30	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading WI 1 through 3	Grading	10/1/2019	10/22/2019	5	16	
2	Grading WI 4	Grading	10/23/2019	11/7/2019	5	12	
3	Building Construction WI 5	Building Construction	11/8/2019	11/13/2019	5	4	
4	Building Construction WI 6 & 7	Site Preparation	11/14/2019	11/19/2019	5	4	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 19

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading WI 1 through 3	Cranes	0	7.00	231	0.29
Grading WI 1 through 3	Excavators	0	8.00	158	0.38
Grading WI 1 through 3	Forklifts	0	8.00	89	0.20
Grading WI 1 through 3	Generator Sets	0	8.00	84	0.74
Grading WI 1 through 3	Graders	1	8.00	187	0.41
Grading WI 1 through 3	Rubber Tired Dozers	3	8.00	247	0.40
Grading WI 1 through 3	Scrapers	2	8.00	367	0.48
Grading WI 1 through 3	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading WI 1 through 3	Welders	0	8.00	46	0.45
Grading WI 4	Concrete/Industrial Saws	0	8.00	81	0.73
Grading WI 4	Excavators	0	8.00	158	0.38
Grading WI 4	Graders	0	8.00	187	0.41
Grading WI 4	Rubber Tired Dozers	1	8.00	247	0.40
Grading WI 4	Scrapers	0	8.00	367	0.48

Grading WI 4	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction WI 5	Cranes	0	7.00	231	0.29
Building Construction WI 5	Excavators	0	8.00	158	0.38
Building Construction WI 5	Forklifts	0	8.00	89	0.20
Building Construction WI 5	Generator Sets	0	8.00	84	0.74
Building Construction WI 5	Graders	0	8.00	187	0.41
Building Construction WI 5	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction WI 5	Scrapers	0	8.00	367	0.48
Building Construction WI 5	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction WI 5	Welders	0	8.00	46	0.45
Building Construction WI 6 & 7	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction WI 6 & 7	Skid Steer Loaders	1	8.00	65	0.37
Building Construction WI 6 & 7	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading WI 1 through 3	6	15.00	6.00	0.00	14.60	6.20	0.50	LD_Mix	HDT_Mix	HHDT
Grading WI 4	1	3.00	2.00	50.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction WI 5	1	348.00	0.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction WI 6 & 7	1	3.00	3.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Grading WI 1 through 3 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.3256	0.0000	19.3256	10.0667	0.0000	10.0667			0.0000			0.0000
Off-Road	6.0210	68.6305	30.8132	0.0625		2.9894	2.9894		2.7502	2.7502		6,193.5416	6,193.5416	1.9596		6,242.5309
Total	6.0210	68.6305	30.8132	0.0625	19.3256	2.9894	22.3150	10.0667	2.7502	12.8169		6,193.5416	6,193.5416	1.9596		6,242.5309

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0200	0.6541	0.1436	1.4100e-003	0.0345	4.7500e-003	0.0393	9.9500e-003	4.5500e-003	0.0145		148.2876	148.2876	0.0146		148.6526
Worker	0.0803	0.0522	0.5370	1.5300e-003	0.1665	1.0300e-003	0.1676	0.0442	9.5000e-004	0.0451		152.0593	152.0593	4.1300e-003		152.1625
Total	0.1003	0.7063	0.6806	2.9400e-003	0.2011	5.7800e-003	0.2068	0.0541	5.5000e-003	0.0596		300.3470	300.3470	0.0187		300.8151

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.5370	0.0000	7.5370	3.9260	0.0000	3.9260			0.0000			0.0000
Off-Road	1.5352	29.6814	33.2636	0.0625		1.1258	1.1258		1.1258	1.1258	0.0000	6,193.5416	6,193.5416	1.9596		6,242.5309
Total	1.5352	29.6814	33.2636	0.0625	7.5370	1.1258	8.6628	3.9260	1.1258	5.0518	0.0000	6,193.5416	6,193.5416	1.9596		6,242.5309

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0200	0.6541	0.1436	1.4100e-003	0.0345	4.7500e-003	0.0393	9.9500e-003	4.5500e-003	0.0145		148.2876	148.2876	0.0146		148.6526
Worker	0.0803	0.0522	0.5370	1.5300e-003	0.1665	1.0300e-003	0.1676	0.0442	9.5000e-004	0.0451		152.0593	152.0593	4.1300e-003		152.1625
Total	0.1003	0.7063	0.6806	2.9400e-003	0.2011	5.7800e-003	0.2068	0.0541	5.5000e-003	0.0596		300.3470	300.3470	0.0187		300.8151

3.3 Grading WI 4 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.7012	0.0000	7.7012	3.4915	0.0000	3.4915			0.0000			0.0000
Off-Road	1.1346	12.0744	4.2841	8.5200e-003		0.5887	0.5887		0.5416	0.5416		845.4285	845.4285	0.2675		852.1156
Total	1.1346	12.0744	4.2841	8.5200e-003	7.7012	0.5887	8.2899	3.4915	0.5416	4.0332		845.4285	845.4285	0.2675		852.1156

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0246	1.0751	0.1505	3.1300e-003	0.0729	3.9200e-003	0.0768	0.0200	3.7500e-003	0.0237		331.5651	331.5651	0.0231		332.1433
Vendor	6.6600e-003	0.2181	0.0479	4.7000e-004	0.0115	1.5800e-003	0.0131	3.3200e-003	1.5200e-003	4.8300e-003		49.4292	49.4292	4.8700e-003		49.5509
Worker	0.0161	0.0104	0.1074	3.1000e-004	0.0333	2.1000e-004	0.0335	8.8300e-003	1.9000e-004	9.0200e-003		30.4119	30.4119	8.3000e-004		30.4325
Total	0.0473	1.3036	0.3058	3.9100e-003	0.1177	5.7100e-003	0.1234	0.0321	5.4600e-003	0.0376		411.4062	411.4062	0.0288		412.1267

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0035	0.0000	3.0035	1.3617	0.0000	1.3617			0.0000			0.0000
Off-Road	0.2091	4.0427	4.5306	8.5200e-003		0.1533	0.1533		0.1533	0.1533	0.0000	845.4285	845.4285	0.2675		852.1156
Total	0.2091	4.0427	4.5306	8.5200e-003	3.0035	0.1533	3.1568	1.3617	0.1533	1.5150	0.0000	845.4285	845.4285	0.2675		852.1156

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0246	1.0751	0.1505	3.1300e-003	0.0729	3.9200e-003	0.0768	0.0200	3.7500e-003	0.0237		331.5651	331.5651	0.0231		332.1433
Vendor	6.6600e-003	0.2181	0.0479	4.7000e-004	0.0115	1.5800e-003	0.0131	3.3200e-003	1.5200e-003	4.8300e-003		49.4292	49.4292	4.8700e-003		49.5509
Worker	0.0161	0.0104	0.1074	3.1000e-004	0.0333	2.1000e-004	0.0335	8.8300e-003	1.9000e-004	9.0200e-003		30.4119	30.4119	8.3000e-004		30.4325
Total	0.0473	1.3036	0.3058	3.9100e-003	0.1177	5.7100e-003	0.1234	0.0321	5.4600e-003	0.0376		411.4062	411.4062	0.0288		412.1267

3.4 Building Construction WI 5 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2328	2.3374	2.3027	3.1100e-003		0.1560	0.1560		0.1436	0.1436		307.5419	307.5419	0.0973		309.9744
Total	0.2328	2.3374	2.3027	3.1100e-003		0.1560	0.1560		0.1436	0.1436		307.5419	307.5419	0.0973		309.9744

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.8623	1.2099	12.4572	0.0354	3.8634	0.0239	3.8873	1.0246	0.0220	1.0466		3,527.7762	3,527.7762	0.0958		3,530.1706
Total	1.8623	1.2099	12.4572	0.0354	3.8634	0.0239	3.8873	1.0246	0.0220	1.0466		3,527.7762	3,527.7762	0.0958		3,530.1706

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0760	1.7344	2.3421	3.1100e-003		0.1215	0.1215		0.1215	0.1215	0.0000	307.5419	307.5419	0.0973		309.9744
Total	0.0760	1.7344	2.3421	3.1100e-003		0.1215	0.1215		0.1215	0.1215	0.0000	307.5419	307.5419	0.0973		309.9744

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.8623	1.2099	12.4572	0.0354	3.8634	0.0239	3.8873	1.0246	0.0220	1.0466		3,527.7762	3,527.7762	0.0958		3,530.1706
Total	1.8623	1.2099	12.4572	0.0354	3.8634	0.0239	3.8873	1.0246	0.0220	1.0466		3,527.7762	3,527.7762	0.0958		3,530.1706

3.5 Building Construction WI 6 & 7 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0846	1.1265	1.3902	2.0700e-003		0.0516	0.0516		0.0475	0.0475		204.6127	204.6127	0.0647		206.2311
Total	0.0846	1.1265	1.3902	2.0700e-003	0.0000	0.0516	0.0516	0.0000	0.0475	0.0475		204.6127	204.6127	0.0647		206.2311

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.9900e-003	0.3271	0.0718	7.0000e-004	0.0173	2.3800e-003	0.0197	4.9700e-003	2.2700e-003	7.2500e-003		74.1438	74.1438	7.3000e-003		74.3263
Worker	0.0161	0.0104	0.1074	3.1000e-004	0.0333	2.1000e-004	0.0335	8.8300e-003	1.9000e-004	9.0200e-003		30.4119	30.4119	8.3000e-004		30.4325
Total	0.0260	0.3375	0.1792	1.0100e-003	0.0506	2.5900e-003	0.0532	0.0138	2.4600e-003	0.0163		104.5557	104.5557	8.1300e-003		104.7588

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0509	1.1622	1.5694	2.0700e-003		0.0814	0.0814		0.0814	0.0814	0.0000	204.6127	204.6127	0.0647		206.2311
Total	0.0509	1.1622	1.5694	2.0700e-003	0.0000	0.0814	0.0814	0.0000	0.0814	0.0814	0.0000	204.6127	204.6127	0.0647		206.2311

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.9900e-003	0.3271	0.0718	7.0000e-004	0.0173	2.3800e-003	0.0197	4.9700e-003	2.2700e-003	7.2500e-003		74.1438	74.1438	7.3000e-003		74.3263
Worker	0.0161	0.0104	0.1074	3.1000e-004	0.0333	2.1000e-004	0.0335	8.8300e-003	1.9000e-004	9.0200e-003		30.4119	30.4119	8.3000e-004		30.4325
Total	0.0260	0.3375	0.1792	1.0100e-003	0.0506	2.5900e-003	0.0532	0.0138	2.4600e-003	0.0163		104.5557	104.5557	8.1300e-003		104.7588

7108 Mecca II Landfill - Phase 2 - CONSTRUCTION ANALYSIS ONLY - Riverside-Salton Sea County, Summer

7108 Mecca II Landfill - Phase 2 - CONSTRUCTION ANALYSIS ONLY
Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	19.00	Acre	19.00	827,640.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15	Operational Year	2019		
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MW hr)	1270.9	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction Analysis Only- project is the closure and closure maintenance of a landfill, no operational activities are included as part of the project's scope.

Land Use - Landfill site covers ~19 acres.

Construction Phase - For modeling purposes, Phase 2 modeled as beginning directly after the completion of Phase 1. Cnst Phases- WI1 (site prep 11/20/19-11/24/19) & WI2 (building construction 11/25/19-11/28/19).

Off-road Equipment -

Off-road Equipment - Equipment for WI2- 1 backhoe & 1 forklift each operating for 8 hours/day.

Off-road Equipment - Equipment for WI1- 1 air compressor, 1 bucket auger drill rig (bore/drill rig), & 1 backhoe each operating for 8 hours/day.

Trips and VMT - WI 1: 1 on-road dump truck

Grading - Site is 19 acres.

Energy Use -

Construction Off-road Equipment Mitigation - Equipment is assumed to have Tier 3 engine levels.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	300.00	7.00
tblConstructionPhase	NumDays	10.00	3.00
tblGrading	AcresOfGrading	0.00	19.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	136.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	3.2142	13.5471	26.0613	0.0617	10.6745	0.7243	11.3988	1.7750	0.6802	2.4552	0.0000	6,117.2776	6,117.2776	0.6824	0.0000	6,134.3376
Maximum	3.2142	13.5471	26.0613	0.0617	10.6745	0.7243	11.3988	1.7750	0.6802	2.4552	0.0000	6,117.2776	6,117.2776	0.6824	0.0000	6,134.3376

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	2.4567	11.9648	29.0957	0.0617	6.5774	0.6268	7.2042	1.3326	0.6249	1.9575	0.0000	6,117.2776	6,117.2776	0.6824	0.0000	6,134.3376
Maximum	2.4567	11.9648	29.0957	0.0617	6.5774	0.6268	7.2042	1.3326	0.6249	1.9575	0.0000	6,117.2776	6,117.2776	0.6824	0.0000	6,134.3376

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	23.57	11.68	-11.64	0.00	38.38	13.46	36.80	24.92	8.13	20.27	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation WI 1	Site Preparation	11/20/2019	11/24/2019	5	3	
2	Building Construction WI 2	Building Construction	11/20/2019	11/28/2019	5	7	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 19

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation WI 1	Air Compressors	1	8.00	78	0.48
Site Preparation WI 1	Bore/Drill Rigs	1	8.00	221	0.50
Site Preparation WI 1	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation WI 1	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction WI 2	Cranes	0	7.00	231	0.29
Building Construction WI 2	Forklifts	1	8.00	89	0.20
Building Construction WI 2	Generator Sets	0	8.00	84	0.74
Building Construction WI 2	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction WI 2	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation WI 1	3	8.00	1.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction WI 2	2	348.00	0.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation WI 1 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7165	0.0000	6.7165	0.7252	0.0000	0.7252			0.0000			0.0000
Off-Road	0.8675	8.4763	6.8247	0.0164		0.4324	0.4324		0.4116	0.4116		1,610.0659	1,610.0659	0.4224		1,620.6252
Total	0.8675	8.4763	6.8247	0.0164	6.7165	0.4324	7.1489	0.7252	0.4116	1.1368		1,610.0659	1,610.0659	0.4224		1,620.6252

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1600e-003	0.1095	0.0205	2.4000e-004	5.7600e-003	7.8000e-004	6.5400e-003	1.6600e-003	7.5000e-004	2.4100e-003		25.7510	25.7510	2.1900e-003		25.8057
Worker	0.0438	0.0269	0.3532	9.1000e-004	0.0888	5.5000e-004	0.0894	0.0236	5.1000e-004	0.0241		90.3955	90.3955	2.5300e-003		90.4588
Total	0.0470	0.1364	0.3737	1.1500e-003	0.0946	1.3300e-003	0.0959	0.0252	1.2600e-003	0.0265		116.1465	116.1465	4.7200e-003		116.2644

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6194	0.0000	2.6194	0.2828	0.0000	0.2828			0.0000			0.0000
Off-Road	0.3891	8.0651	9.8524	0.0164		0.4198	0.4198		0.4198	0.4198	0.0000	1,610.0659	1,610.0659	0.4224		1,620.6252
Total	0.3891	8.0651	9.8524	0.0164	2.6194	0.4198	3.0393	0.2828	0.4198	0.7027	0.0000	1,610.0659	1,610.0659	0.4224		1,620.6252

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1600e-003	0.1095	0.0205	2.4000e-004	5.7600e-003	7.8000e-004	6.5400e-003	1.6600e-003	7.5000e-004	2.4100e-003		25.7510	25.7510	2.1900e-003		25.8057
Worker	0.0438	0.0269	0.3532	9.1000e-004	0.0888	5.5000e-004	0.0894	0.0236	5.1000e-004	0.0241		90.3955	90.3955	2.5300e-003		90.4588
Total	0.0470	0.1364	0.3737	1.1500e-003	0.0946	1.3300e-003	0.0959	0.0252	1.2600e-003	0.0265		116.1465	116.1465	4.7200e-003		116.2644

3.3 Building Construction WI 2 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	0.3928	3.7657	3.4969	4.6300e-003		0.2667	0.2667		0.2454	0.2454		458.8623	458.8623	0.1452			462.4917
Total	0.3928	3.7657	3.4969	4.6300e-003		0.2667	0.2667		0.2454	0.2454		458.8623	458.8623	0.1452			462.4917

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	1.9070	1.1687	15.3660	0.0395	3.8634	0.0239	3.8873	1.0246	0.0220	1.0466		3,932.2030	3,932.2030	0.1101			3,934.9562
Total	1.9070	1.1687	15.3660	0.0395	3.8634	0.0239	3.8873	1.0246	0.0220	1.0466		3,932.2030	3,932.2030	0.1101			3,934.9562

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1136	2.5946	3.5036	4.6300e-003		0.1818	0.1818		0.1818	0.1818	0.0000	458.8623	458.8623	0.1452		462.4917
Total	0.1136	2.5946	3.5036	4.6300e-003		0.1818	0.1818		0.1818	0.1818	0.0000	458.8623	458.8623	0.1452		462.4917

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.9070	1.1687	15.3660	0.0395	3.8634	0.0239	3.8873	1.0246	0.0220	1.0466		3,932.2030	3,932.2030	0.1101		3,934.9562
Total	1.9070	1.1687	15.3660	0.0395	3.8634	0.0239	3.8873	1.0246	0.0220	1.0466		3,932.2030	3,932.2030	0.1101		3,934.9562

7108 Mecca II Landfill - Phase 2 - CONSTRUCTION ANALYSIS ONLY - Riverside-Salton Sea County, Winter

7108 Mecca II Landfill - Phase 2 - CONSTRUCTION ANALYSIS ONLY

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	19.00	Acre	19.00	827,640.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2019
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction Analysis Only- project is the closure and closure maintenance of a landfill, no operational activities are included as part of the project's scope.

Land Use - Landfill site covers ~19 acres.

Construction Phase - For modeling purposes, Phase 2 modeled as beginning directly after the completion of Phase 1. Cnst Phases- WI1 (site prep 11/20/19-11/24/19) & WI2 (building construction 11/25/19-11/28/19).

Off-road Equipment -

Off-road Equipment - Equipment for WI2- 1 backhoe & 1 forklift each operating for 8 hours/day.

Off-road Equipment - Equipment for WI1- 1 air compressor, 1 bucket auger drill rig (bore/drill rig), & 1 backhoe each operating for 8 hours/day.

Trips and VMT - WI 1: 1 on-road dump truck

Grading - Site is 19 acres.

Energy Use -

Construction Off-road Equipment Mitigation - Equipment is assumed to have Tier 3 engine levels.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	300.00	7.00
tblConstructionPhase	NumDays	10.00	3.00
tblGrading	AcresOfGrading	0.00	19.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	136.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	3.1687	13.5887	23.0891	0.0575	10.6745	0.7243	11.3988	1.7750	0.6802	2.4552	0.0000	5,702.5173	5,702.5173	0.6680	0.0000	5,719.2164
Maximum	3.1687	13.5887	23.0891	0.0575	10.6745	0.7243	11.3988	1.7750	0.6802	2.4552	0.0000	5,702.5173	5,702.5173	0.6680	0.0000	5,719.2164

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	2.4111	12.0064	26.1235	0.0575	6.5774	0.6268	7.2042	1.3326	0.6249	1.9575	0.0000	5,702.5173	5,702.5173	0.6680	0.0000	5,719.2164
Maximum	2.4111	12.0064	26.1235	0.0575	6.5774	0.6268	7.2042	1.3326	0.6249	1.9575	0.0000	5,702.5173	5,702.5173	0.6680	0.0000	5,719.2164

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	23.91	11.64	-13.14	0.00	38.38	13.46	36.80	24.92	8.13	20.27	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation WI 1	Site Preparation	11/20/2019	11/24/2019	5	3	
2	Building Construction WI 2	Building Construction	11/20/2019	11/28/2019	5	7	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 19

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation WI 1	Air Compressors	1	8.00	78	0.48
Site Preparation WI 1	Bore/Drill Rigs	1	8.00	221	0.50
Site Preparation WI 1	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation WI 1	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction WI 2	Cranes	0	7.00	231	0.29
Building Construction WI 2	Forklifts	1	8.00	89	0.20
Building Construction WI 2	Generator Sets	0	8.00	84	0.74
Building Construction WI 2	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction WI 2	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation WI 1	3	8.00	1.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction WI 2	2	348.00	0.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation WI 1 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7165	0.0000	6.7165	0.7252	0.0000	0.7252			0.0000			0.0000
Off-Road	0.8675	8.4763	6.8247	0.0164		0.4324	0.4324		0.4116	0.4116		1,610.0659	1,610.0659	0.4224		1,620.6252
Total	0.8675	8.4763	6.8247	0.0164	6.7165	0.4324	7.1489	0.7252	0.4116	1.1368		1,610.0659	1,610.0659	0.4224		1,620.6252

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.3300e-003	0.1090	0.0239	2.3000e-004	5.7600e-003	7.9000e-004	6.5500e-003	1.6600e-003	7.6000e-004	2.4200e-003		24.7146	24.7146	2.4300e-003		24.7754
Worker	0.0428	0.0278	0.2864	8.1000e-004	0.0888	5.5000e-004	0.0894	0.0236	5.1000e-004	0.0241		81.0983	81.0983	2.2000e-003		81.1534
Total	0.0461	0.1368	0.3103	1.0400e-003	0.0946	1.3400e-003	0.0959	0.0252	1.2700e-003	0.0265		105.8129	105.8129	4.6300e-003		105.9288

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6194	0.0000	2.6194	0.2828	0.0000	0.2828			0.0000			0.0000
Off-Road	0.3891	8.0651	9.8524	0.0164		0.4198	0.4198		0.4198	0.4198	0.0000	1,610.0659	1,610.0659	0.4224		1,620.6252
Total	0.3891	8.0651	9.8524	0.0164	2.6194	0.4198	3.0393	0.2828	0.4198	0.7027	0.0000	1,610.0659	1,610.0659	0.4224		1,620.6252

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.3300e-003	0.1090	0.0239	2.3000e-004	5.7600e-003	7.9000e-004	6.5500e-003	1.6600e-003	7.6000e-004	2.4200e-003		24.7146	24.7146	2.4300e-003		24.7754
Worker	0.0428	0.0278	0.2864	8.1000e-004	0.0888	5.5000e-004	0.0894	0.0236	5.1000e-004	0.0241		81.0983	81.0983	2.2000e-003		81.1534
Total	0.0461	0.1368	0.3103	1.0400e-003	0.0946	1.3400e-003	0.0959	0.0252	1.2700e-003	0.0265		105.8129	105.8129	4.6300e-003		105.9288

3.3 Building Construction WI 2 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3928	3.7657	3.4969	4.6300e-003		0.2667	0.2667		0.2454	0.2454		458.8623	458.8623	0.1452		462.4917
Total	0.3928	3.7657	3.4969	4.6300e-003		0.2667	0.2667		0.2454	0.2454		458.8623	458.8623	0.1452		462.4917

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.8623	1.2099	12.4572	0.0354	3.8634	0.0239	3.8873	1.0246	0.0220	1.0466		3,527.7762	3,527.7762	0.0958		3,530.1706
Total	1.8623	1.2099	12.4572	0.0354	3.8634	0.0239	3.8873	1.0246	0.0220	1.0466		3,527.7762	3,527.7762	0.0958		3,530.1706

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1136	2.5946	3.5036	4.6300e-003		0.1818	0.1818		0.1818	0.1818	0.0000	458.8623	458.8623	0.1452		462.4917
Total	0.1136	2.5946	3.5036	4.6300e-003		0.1818	0.1818		0.1818	0.1818	0.0000	458.8623	458.8623	0.1452		462.4917

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.8623	1.2099	12.4572	0.0354	3.8634	0.0239	3.8873	1.0246	0.0220	1.0466		3,527.7762	3,527.7762	0.0958		3,530.1706
Total	1.8623	1.2099	12.4572	0.0354	3.8634	0.0239	3.8873	1.0246	0.0220	1.0466		3,527.7762	3,527.7762	0.0958		3,530.1706

APPENDIX C

CalEEMod Model Annual Emissions Printouts

7108 Mecca II Landfill - Phase 1 - CONSTRUCTION ANALYSIS ONLY - Riverside-Salton Sea County, Annual

7108 Mecca II Landfill - Phase 1 - CONSTRUCTION ANALYSIS ONLY
Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	19.00	Acre	19.00	827,640.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2019
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MW hr)	1270.9	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction Analysis Only- project is the closure and post closure maintenance of a landfill, no operational activities are included as part of the project's scope.

Land Use - Landfill is ~19 acres.

Construction Phase - Construction to begin no earlier than fall 2019. Cnst Phases- WI1-3 (gradg10/1/19-10/22/19), WI4 (gradg10/23/19-11/7/19), WI5 (blg con11/8/19-11/13/19), WI6&7 (blg con11/14/19-11/19/19).

Off-road Equipment -

Off-road Equipment - Equipment for WI5- 1 backhoe for 8 hours/day.

Off-road Equipment - Equipment for WI 6&7- 1 skid steer with auger attachment (skid steer loaders) for 8 hours/day.

Off-road Equipment - Equipment for WI 1 through 3- 2 dozers (rubber tired dozers), 2 scrapers, 1 rubber tired dozer, 1 motor grader (grader) all working for 8 hours/day.

Off-road Equipment - Equipment for WI4- 1 Dozer (rubber tired dozer) for 8 hours/day.

Trips and VMT - WI1-3: 5 on-road fltbd trcks & 1 H2O trck (on-site borrow areas w/ max distance of 0.5 miles), WI4: 2 on-road dmp trcks (50 loads - ~20 miles from CVC to site), & WI6&7: 3 on-road fltbd trcks.

Grading - Landfill area is 19 ac. WI3 is the excavation of 100,000 CY of soil from on-site borrow areas; therefore, site is balanced.

Energy Use -

Land Use Change -

Construction Off-road Equipment Mitigation - Equipment is assumed to have Tier 3 engine levels.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	300.00	4.00
tblConstructionPhase	NumDays	30.00	16.00
tblConstructionPhase	NumDays	30.00	12.00
tblConstructionPhase	NumDays	10.00	4.00
tblGrading	AcresOfGrading	40.00	19.00
tblGrading	AcresOfGrading	0.00	19.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripNumber	0.00	50.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	136.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0601	0.6453	0.3136	6.8000e-004	0.2108	0.0280	0.2388	0.1041	0.0258	0.1299	0.0000	61.7512	61.7512	0.0165	0.0000	62.1624
Maximum	0.0601	0.6453	0.3136	6.8000e-004	0.2108	0.0280	0.2388	0.1041	0.0258	0.1299	0.0000	61.7512	61.7512	0.0165	0.0000	62.1624

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0183	0.2844	0.3351	6.8000e-004	0.0883	0.0105	0.0988	0.0422	0.0105	0.0527	0.0000	61.7512	61.7512	0.0165	0.0000	62.1623
Maximum	0.0183	0.2844	0.3351	6.8000e-004	0.0883	0.0105	0.0988	0.0422	0.0105	0.0527	0.0000	61.7512	61.7512	0.0165	0.0000	62.1623

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	69.56	55.93	-6.86	0.00	58.11	62.61	58.64	59.44	59.39	59.43	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading WI 1 through 3	Grading	10/1/2019	10/22/2019	5	16	
2	Grading WI 4	Grading	10/23/2019	11/7/2019	5	12	
3	Building Construction WI 5	Building Construction	11/8/2019	11/13/2019	5	4	
4	Building Construction WI 6 & 7	Site Preparation	11/14/2019	11/19/2019	5	4	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 19

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading WI 1 through 3	Cranes	0	7.00	231	0.29
Grading WI 1 through 3	Excavators	0	8.00	158	0.38
Grading WI 1 through 3	Forklifts	0	8.00	89	0.20
Grading WI 1 through 3	Generator Sets	0	8.00	84	0.74
Grading WI 1 through 3	Graders	1	8.00	187	0.41
Grading WI 1 through 3	Rubber Tired Dozers	3	8.00	247	0.40
Grading WI 1 through 3	Scrapers	2	8.00	367	0.48
Grading WI 1 through 3	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading WI 1 through 3	Welders	0	8.00	46	0.45
Grading WI 4	Concrete/Industrial Saws	0	8.00	81	0.73
Grading WI 4	Excavators	0	8.00	158	0.38
Grading WI 4	Graders	0	8.00	187	0.41
Grading WI 4	Rubber Tired Dozers	1	8.00	247	0.40

Grading WI 4	Scrapers	0	8.00	367	0.48
Grading WI 4	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction WI 5	Cranes	0	7.00	231	0.29
Building Construction WI 5	Excavators	0	8.00	158	0.38
Building Construction WI 5	Forklifts	0	8.00	89	0.20
Building Construction WI 5	Generator Sets	0	8.00	84	0.74
Building Construction WI 5	Graders	0	8.00	187	0.41
Building Construction WI 5	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction WI 5	Scrapers	0	8.00	367	0.48
Building Construction WI 5	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction WI 5	Welders	0	8.00	46	0.45
Building Construction WI 6 & 7	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction WI 6 & 7	Skid Steer Loaders	1	8.00	65	0.37
Building Construction WI 6 & 7	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading WI 1 through 3	6	15.00	6.00	0.00	14.60	6.20	0.50	LD_Mix	HDT_Mix	HHDT
Grading WI 4	1	3.00	2.00	50.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction WI 5	1	348.00	0.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction WI 6 & 7	1	3.00	3.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Grading WI 1 through 3 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1546	0.0000	0.1546	0.0805	0.0000	0.0805	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0482	0.5490	0.2465	5.0000e-004		0.0239	0.0239		0.0220	0.0220	0.0000	44.9495	44.9495	0.0142	0.0000	45.3050
Total	0.0482	0.5490	0.2465	5.0000e-004	0.1546	0.0239	0.1785	0.0805	0.0220	0.1025	0.0000	44.9495	44.9495	0.0142	0.0000	45.3050

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5000e-004	5.3200e-003	1.0600e-003	1.0000e-005	2.7000e-004	4.0000e-005	3.1000e-004	8.0000e-005	4.0000e-005	1.1000e-004	0.0000	1.1024	1.1024	1.0000e-004	0.0000	1.1049
Worker	5.9000e-004	4.3000e-004	4.5300e-003	1.0000e-005	1.3100e-003	1.0000e-005	1.3200e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1320	1.1320	3.0000e-005	0.0000	1.1327
Total	7.4000e-004	5.7500e-003	5.5900e-003	2.0000e-005	1.5800e-003	5.0000e-005	1.6300e-003	4.3000e-004	5.0000e-005	4.7000e-004	0.0000	2.2343	2.2343	1.3000e-004	0.0000	2.2376

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0603	0.0000	0.0603	0.0314	0.0000	0.0314	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0123	0.2375	0.2661	5.0000e-004		9.0100e-003	9.0100e-003		9.0100e-003	9.0100e-003	0.0000	44.9494	44.9494	0.0142	0.0000	45.3050
Total	0.0123	0.2375	0.2661	5.0000e-004	0.0603	9.0100e-003	0.0693	0.0314	9.0100e-003	0.0404	0.0000	44.9494	44.9494	0.0142	0.0000	45.3050

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5000e-004	5.3200e-003	1.0600e-003	1.0000e-005	2.7000e-004	4.0000e-005	3.1000e-004	8.0000e-005	4.0000e-005	1.1000e-004	0.0000	1.1024	1.1024	1.0000e-004	0.0000	1.1049
Worker	5.9000e-004	4.3000e-004	4.5300e-003	1.0000e-005	1.3100e-003	1.0000e-005	1.3200e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1320	1.1320	3.0000e-005	0.0000	1.1327
Total	7.4000e-004	5.7500e-003	5.5900e-003	2.0000e-005	1.5800e-003	5.0000e-005	1.6300e-003	4.3000e-004	5.0000e-005	4.7000e-004	0.0000	2.2343	2.2343	1.3000e-004	0.0000	2.2376

3.3 Grading WI 4 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0462	0.0000	0.0462	0.0210	0.0000	0.0210	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8100e-003	0.0725	0.0257	5.0000e-005		3.5300e-003	3.5300e-003		3.2500e-003	3.2500e-003	0.0000	4.6018	4.6018	1.4600e-003	0.0000	4.6382
Total	6.8100e-003	0.0725	0.0257	5.0000e-005	0.0462	3.5300e-003	0.0497	0.0210	3.2500e-003	0.0242	0.0000	4.6018	4.6018	1.4600e-003	0.0000	4.6382

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-004	6.5500e-003	8.3000e-004	2.0000e-005	4.3000e-004	2.0000e-005	4.5000e-004	1.2000e-004	2.0000e-005	1.4000e-004	0.0000	1.8314	1.8314	1.2000e-004	0.0000	1.8344
Vendor	4.0000e-005	1.3300e-003	2.7000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2756	0.2756	2.0000e-005	0.0000	0.2762
Worker	9.0000e-005	6.0000e-005	6.8000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1698	0.1698	0.0000	0.0000	0.1699
Total	2.7000e-004	7.9400e-003	1.7800e-003	2.0000e-005	7.0000e-004	3.0000e-005	7.3000e-004	1.9000e-004	3.0000e-005	2.2000e-004	0.0000	2.2767	2.2767	1.4000e-004	0.0000	2.2805

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0180	0.0000	0.0180	8.1700e-003	0.0000	8.1700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2500e-003	0.0243	0.0272	5.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	4.6018	4.6018	1.4600e-003	0.0000	4.6382
Total	1.2500e-003	0.0243	0.0272	5.0000e-005	0.0180	9.2000e-004	0.0189	8.1700e-003	9.2000e-004	9.0900e-003	0.0000	4.6018	4.6018	1.4600e-003	0.0000	4.6382

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-004	6.5500e-003	8.3000e-004	2.0000e-005	4.3000e-004	2.0000e-005	4.5000e-004	1.2000e-004	2.0000e-005	1.4000e-004	0.0000	1.8314	1.8314	1.2000e-004	0.0000	1.8344
Vendor	4.0000e-005	1.3300e-003	2.7000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2756	0.2756	2.0000e-005	0.0000	0.2762
Worker	9.0000e-005	6.0000e-005	6.8000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1698	0.1698	0.0000	0.0000	0.1699
Total	2.7000e-004	7.9400e-003	1.7800e-003	2.0000e-005	7.0000e-004	3.0000e-005	7.3000e-004	1.9000e-004	3.0000e-005	2.2000e-004	0.0000	2.2767	2.2767	1.4000e-004	0.0000	2.2805

3.4 Building Construction WI 5 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7000e-004	4.6700e-003	4.6100e-003	1.0000e-005		3.1000e-004	3.1000e-004		2.9000e-004	2.9000e-004	0.0000	0.5580	0.5580	1.8000e-004	0.0000	0.5624
Total	4.7000e-004	4.6700e-003	4.6100e-003	1.0000e-005		3.1000e-004	3.1000e-004		2.9000e-004	2.9000e-004	0.0000	0.5580	0.5580	1.8000e-004	0.0000	0.5624

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4400e-003	2.5000e-003	0.0263	7.0000e-005	7.6000e-003	5.0000e-005	7.6500e-003	2.0200e-003	4.0000e-005	2.0600e-003	0.0000	6.5653	6.5653	1.8000e-004	0.0000	6.5698
Total	3.4400e-003	2.5000e-003	0.0263	7.0000e-005	7.6000e-003	5.0000e-005	7.6500e-003	2.0200e-003	4.0000e-005	2.0600e-003	0.0000	6.5653	6.5653	1.8000e-004	0.0000	6.5698

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.5000e-004	3.4700e-003	4.6800e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.5580	0.5580	1.8000e-004	0.0000	0.5624
Total	1.5000e-004	3.4700e-003	4.6800e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.5580	0.5580	1.8000e-004	0.0000	0.5624

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4400e-003	2.5000e-003	0.0263	7.0000e-005	7.6000e-003	5.0000e-005	7.6500e-003	2.0200e-003	4.0000e-005	2.0600e-003	0.0000	6.5653	6.5653	1.8000e-004	0.0000	6.5698
Total	3.4400e-003	2.5000e-003	0.0263	7.0000e-005	7.6000e-003	5.0000e-005	7.6500e-003	2.0200e-003	4.0000e-005	2.0600e-003	0.0000	6.5653	6.5653	1.8000e-004	0.0000	6.5698

3.5 Building Construction WI 6 & 7 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7000e-004	2.2500e-003	2.7800e-003	0.0000		1.0000e-004	1.0000e-004		9.0000e-005	9.0000e-005	0.0000	0.3712	0.3712	1.2000e-004	0.0000	0.3742
Total	1.7000e-004	2.2500e-003	2.7800e-003	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	9.0000e-005	9.0000e-005	0.0000	0.3712	0.3712	1.2000e-004	0.0000	0.3742

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	6.6000e-004	1.3000e-004	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1378	0.1378	1.0000e-005	0.0000	0.1381
Worker	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0566	0.0566	0.0000	0.0000	0.0566
Total	5.0000e-005	6.8000e-004	3.6000e-004	0.0000	1.0000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1944	0.1944	1.0000e-005	0.0000	0.1948

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-004	2.3200e-003	3.1400e-003	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.3712	0.3712	1.2000e-004	0.0000	0.3742
Total	1.0000e-004	2.3200e-003	3.1400e-003	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	1.6000e-004	1.6000e-004	0.0000	0.3712	0.3712	1.2000e-004	0.0000	0.3742

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	6.6000e-004	1.3000e-004	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1378	0.1378	1.0000e-005	0.0000	0.1381
Worker	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0566	0.0566	0.0000	0.0000	0.0566
Total	5.0000e-005	6.8000e-004	3.6000e-004	0.0000	1.0000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1944	0.1944	1.0000e-005	0.0000	0.1948

7108 Mecca II Landfill - Phase 2 - CONSTRUCTION ANALYSIS ONLY - Riverside-Salton Sea County, Annual

7108 Mecca II Landfill - Phase 2 - CONSTRUCTION ANALYSIS ONLY
Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	19.00	Acre	19.00	827,640.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2019
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MW hr)	1270.9	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction Analysis Only- project is the closure and closure maintenance of a landfill, no operational activities are included as part of the project's scope.

Land Use - Landfill site covers ~19 acres.

Construction Phase - For modeling purposes, Phase 2 modeled as beginning directly after the completion of Phase 1. Cnst Phases- WI1 (site prep 11/20/19-11/24/19) & WI2 (building construction 11/25/19-11/28/19).

Off-road Equipment -

Off-road Equipment - Equipment for WI2- 1 backhoe & 1 forklift each operating for 8 hours/day.

Off-road Equipment - Equipment for WI1- 1 air compressor, 1 bucket auger drill rig (bore/drill rig), & 1 backhoe each operating for 8 hours/day.

Trips and VMT - WI 1: 1 on-road dump truck

Grading - Site is 19 acres.

Energy Use -

Construction Off-road Equipment Mitigation - Equipment is assumed to have Tier 3 engine levels.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	300.00	7.00
tblConstructionPhase	NumDays	10.00	3.00
tblGrading	AcresOfGrading	0.00	19.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	136.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	8.7600e-003	0.0305	0.0689	1.7000e-004	0.0235	1.6700e-003	0.0252	4.6600e-003	1.5500e-003	6.2100e-003	0.0000	15.2848	15.2848	1.3600e-003	0.0000	15.3187
Maximum	8.7600e-003	0.0305	0.0689	1.7000e-004	0.0235	1.6700e-003	0.0252	4.6600e-003	1.5500e-003	6.2100e-003	0.0000	15.2848	15.2848	1.3600e-003	0.0000	15.3187

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	7.0600e-003	0.0258	0.0735	1.7000e-004	0.0174	1.3500e-003	0.0187	3.9900e-003	1.3400e-003	5.3400e-003	0.0000	15.2848	15.2848	1.3600e-003	0.0000	15.3187
Maximum	7.0600e-003	0.0258	0.0735	1.7000e-004	0.0174	1.3500e-003	0.0187	3.9900e-003	1.3400e-003	5.3400e-003	0.0000	15.2848	15.2848	1.3600e-003	0.0000	15.3187

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	19.41	15.45	-6.62	0.00	26.12	19.16	25.66	14.38	13.55	14.01	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation WI 1	Site Preparation	11/20/2019	11/24/2019	5	3	
2	Building Construction WI 2	Building Construction	11/20/2019	11/28/2019	5	7	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 19

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation WI 1	Air Compressors	1	8.00	78	0.48
Site Preparation WI 1	Bore/Drill Rigs	1	8.00	221	0.50
Site Preparation WI 1	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation WI 1	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction WI 2	Cranes	0	7.00	231	0.29
Building Construction WI 2	Forklifts	1	8.00	89	0.20
Building Construction WI 2	Generator Sets	0	8.00	84	0.74
Building Construction WI 2	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction WI 2	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation WI 1	3	8.00	1.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction WI 2	2	348.00	0.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation WI 1 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0101	0.0000	0.0101	1.0900e-003	0.0000	1.0900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3000e-003	0.0127	0.0102	2.0000e-005		6.5000e-004	6.5000e-004		6.2000e-004	6.2000e-004	0.0000	2.1909	2.1909	5.7000e-004	0.0000	2.2053
Total	1.3000e-003	0.0127	0.0102	2.0000e-005	0.0101	6.5000e-004	0.0107	1.0900e-003	6.2000e-004	1.7100e-003	0.0000	2.1909	2.1909	5.7000e-004	0.0000	2.2053

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	1.7000e-004	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0345	0.0345	0.0000	0.0000	0.0345
Worker	6.0000e-005	4.0000e-005	4.5000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1132	0.1132	0.0000	0.0000	0.1133
Total	6.0000e-005	2.1000e-004	4.8000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1476	0.1476	0.0000	0.0000	0.1478

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.9300e-003	0.0000	3.9300e-003	4.2000e-004	0.0000	4.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8000e-004	0.0121	0.0148	2.0000e-005		6.3000e-004	6.3000e-004		6.3000e-004	6.3000e-004	0.0000	2.1909	2.1909	5.7000e-004	0.0000	2.2053
Total	5.8000e-004	0.0121	0.0148	2.0000e-005	3.9300e-003	6.3000e-004	4.5600e-003	4.2000e-004	6.3000e-004	1.0500e-003	0.0000	2.1909	2.1909	5.7000e-004	0.0000	2.2053

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	1.7000e-004	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0345	0.0345	0.0000	0.0000	0.0345
Worker	6.0000e-005	4.0000e-005	4.5000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1132	0.1132	0.0000	0.0000	0.1133
Total	6.0000e-005	2.1000e-004	4.8000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1476	0.1476	0.0000	0.0000	0.1478

3.3 Building Construction WI 2 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3700e-003	0.0132	0.0122	2.0000e-005		9.3000e-004	9.3000e-004		8.6000e-004	8.6000e-004	0.0000	1.4570	1.4570	4.6000e-004	0.0000	1.4685
Total	1.3700e-003	0.0132	0.0122	2.0000e-005		9.3000e-004	9.3000e-004		8.6000e-004	8.6000e-004	0.0000	1.4570	1.4570	4.6000e-004	0.0000	1.4685

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0200e-003	4.3800e-003	0.0459	1.3000e-004	0.0133	8.0000e-005	0.0134	3.5300e-003	8.0000e-005	3.6100e-003	0.0000	11.4893	11.4893	3.1000e-004	0.0000	11.4971
Total	6.0200e-003	4.3800e-003	0.0459	1.3000e-004	0.0133	8.0000e-005	0.0134	3.5300e-003	8.0000e-005	3.6100e-003	0.0000	11.4893	11.4893	3.1000e-004	0.0000	11.4971

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.0000e-004	9.0800e-003	0.0123	2.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	1.4570	1.4570	4.6000e-004	0.0000	1.4685
Total	4.0000e-004	9.0800e-003	0.0123	2.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	1.4570	1.4570	4.6000e-004	0.0000	1.4685

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0200e-003	4.3800e-003	0.0459	1.3000e-004	0.0133	8.0000e-005	0.0134	3.5300e-003	8.0000e-005	3.6100e-003	0.0000	11.4893	11.4893	3.1000e-004	0.0000	11.4971
Total	6.0200e-003	4.3800e-003	0.0459	1.3000e-004	0.0133	8.0000e-005	0.0134	3.5300e-003	8.0000e-005	3.6100e-003	0.0000	11.4893	11.4893	3.1000e-004	0.0000	11.4971



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Appendix B: AB 52 Notification Correspondence

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TWENTY-NINE PALMS BAND OF MISSION INDIANS

46-200 Harrison Place . Coachella, California . 92236 . Ph. 760.863.2444 . Fax: 760.863.2449

June 1, 2017

Jose Merlan, Urban/Regional Planner III
Riverside County Department of Waste Resources
14310 Frederick St.
Moreno Valley, CA 92553

RE: AB 52 Consultation Notice, Mecca II Closure, RCDWR

Dear Mr. Merlan,

In regards to consultation in compliance with AB 52 (California Public Resources Code § 21080.3.1) for the Mecca II Closure, the Tribal Historic Preservation Office (THPO) is not aware of any archaeological/cultural sites or properties in the project area that pertain to the Twenty-Nine Palms Band of Mission Indians. While the project lies in the Chemehuevi Traditional Use Area, we currently have no interest in the project and defer to the comments of other affiliated tribes. If there are inadvertent discoveries of archaeological remains or resources, construction should stop immediately, and the appropriate agency and tribe(s) should be notified.

If you have any questions, please do not hesitate to contact the THPO at (760) 775-3259 or by email: TNPConsultation@29palmsbomi-nsn.gov.

Sincerely,

Anthony Madrigal, Jr.
Tribal Historic Preservation Officer

cc: Darrell Mike, Twenty-Nine Palms Tribal Chairman
Sarah Bliss, Twenty-Nine Palms Tribal Cultural Specialist

17 JUN -5 PM 4:35
COUNTY OF RIVERSIDE
WASTE MANAGEMENT

May 30, 2017

Attn: Jose Merlan, Urban/Regional Planner III
Riverside County Department of Waste Resources, Planning Section
14310 Frederick Street
Moreno Valley, CA 92553



RE: AB 52 Consultation; Proposed Landfill Closure Project at the Mecca II Landfill – 92520 66th Avenue, Mecca, CA 92254

The Soboba Band of Luiseño Indians appreciates your observance of Tribal Cultural Resources and their preservation in your project. The information provided to us on said project has been assessed through our Cultural Resource Department, where it was concluded that although it is outside the existing reservation, the project area does fall within the bounds of our Tribal Traditional Use Areas. At this time the Soboba Band does not have any specific concerns regarding known cultural resources in the specified areas that the project encompasses, but does request that the appropriate consultation continue to take place between concerned tribes, project proponents, and local agencies.

Also, working in and around traditional use areas intensifies the possibility of encountering cultural resources during any future construction/excavation phases that may take place. For this reason the Soboba Band of Luiseño Indians requests that approved Native American Monitor(s) be present during any future ground disturbing proceedings, including surveys and archaeological testing, associated with this project. The Soboba Band wishes to defer to the Torrez Martinez Desert Cahuilla Indians who are in closer proximity to the project. Michael Mirelez, Cultural Resource Coordinator, for the Torres Martinez Desert Cahuilla Indians may be reached by telephone at 760-534-2790 or by email at mmirelez@tmdci.org. Please feel free to contact me with any additional questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe", with a long horizontal line extending to the right.

Joseph Ontiveros
Cultural Resource Director
Soboba Band of Luiseño Indians
P.O. Box 487
San Jacinto, CA 92581
Phone (951) 654-5544 ext. 4137
Cell (951) 663-5279
jontiveros@soboba-nsn.gov

Confidentiality: The entirety of the contents of this letter shall remain confidential between Soboba and the County of Riverside. No part of the contents of this letter may be shared, copied, or utilized in any way with any other individual, entity, municipality, or tribe, whatsoever, without the expressed written permission of the Soboba Band of Luiseño Indians.

Appendix C: General Plan Exhibits and Other Sources

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General Plan Safety Element

http://planning.rctlma.org/Portals/0/genplan/general_plan_2016/elements/Ch06_Safety-120815.pdf?ver=2016-04-01-100802-943

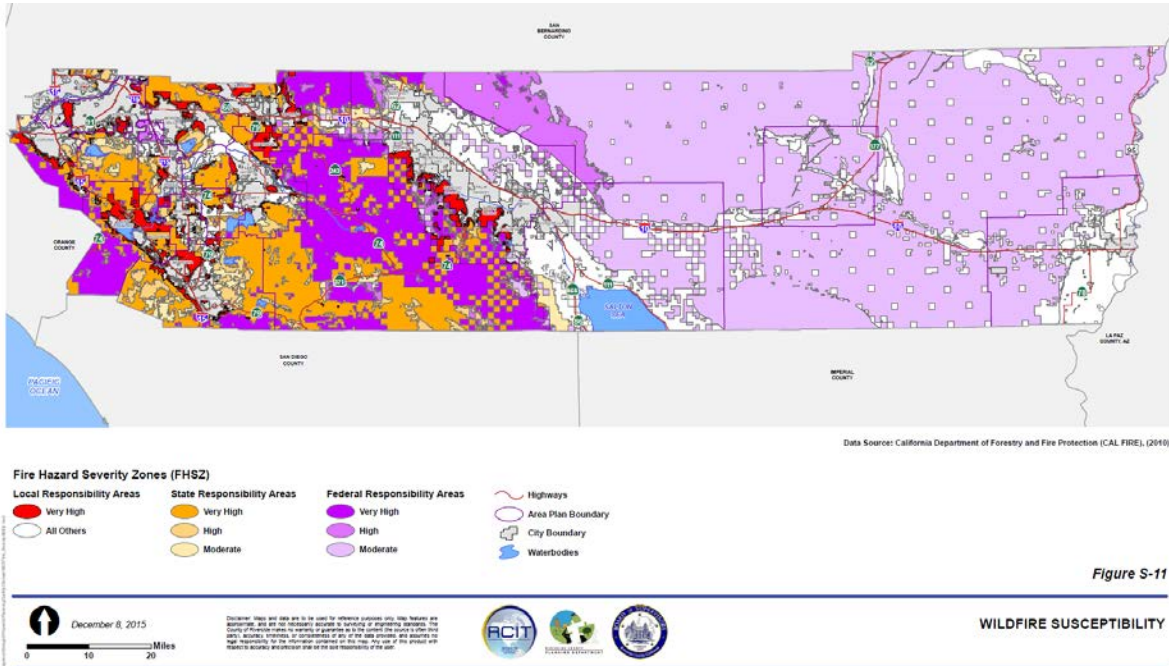


Figure S-11

California Irrigation Management Information System (CIMIS)

<http://wwwcimis.water.ca.gov/UserControls/Reports/MonthlyReportViewer.aspx>

California Irrigation Management Information System (CIMIS)

CIMIS Monthly Report

Rendered in ENGLISH Units.

September 2016 - August 2017

Printed on Thursday, September 28, 2017

Oasis - Imperial/Coachella Valley - Station 136

Month Year	Total ETo (in)	Total Precip (in)	Avg Sol Rad (Ly/day)	Avg Vap Pres (mBars)	Avg Max Air Temp (°F)	Avg Min Air Temp (°F)	Avg Air Temp (°F)	Avg Max Rel Hum (%)	Avg Min Rel Hum (%)	Avg Rel Hum (%)	Avg Dew Point (°F)	Avg Wind Speed (mph)	Avg Soil Temp (°F)
Sep 2016	6.13 K	0.00	464	14.2	97.0 K	66.7 K	82.0 K	70 K	20 K	38 K	52.7 K	4.0 K	79.5
Oct 2016	4.69 K	0.00 K	405 K	12.7 K	90.0 K	62.0 K	75.3 K	68 L	24 L	43 L	49.9 L	3.5 K	73.9 K
Nov 2016	3.20 K	0.00	315	9.6	78.9 K	51.1	64.5 K	70	27	46 K	42.4 K	3.5	66.4 K
Dec 2016	2.17	0.00	239	8.6 K	67.9	44.8	55.4	77	36	57 K	38.6 K	3.5 K	56.9 K
Totls/Avgs	16.19	0.0	366	11.3	83.4	56.1	69.3	71	27	46	45.9	3.6	69.2

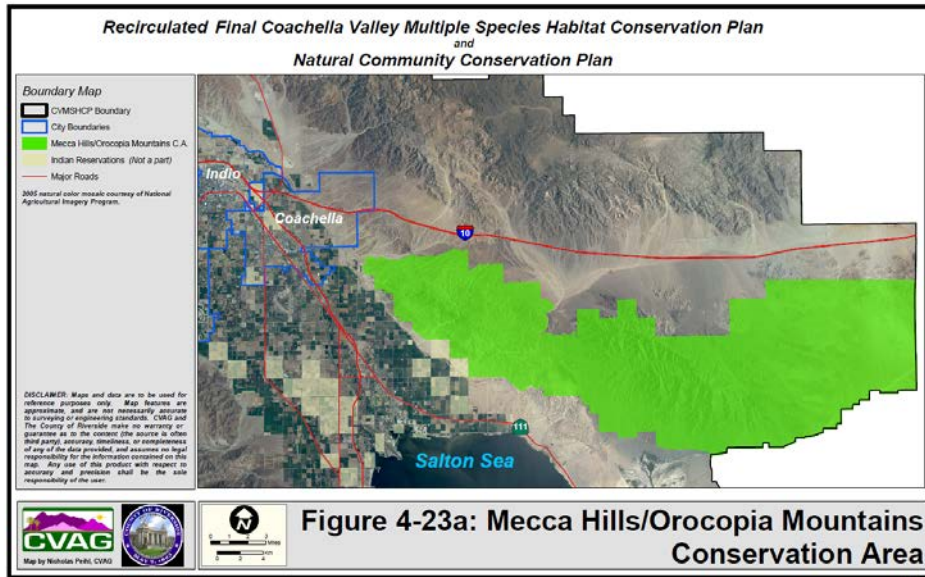
Oasis - Imperial/Coachella Valley - Station 136

Month Year	Total ETo (in)	Total Precip (in)	Avg Sol Rad (Ly/day)	Avg Vap Pres (mBars)	Avg Max Air Temp (°F)	Avg Min Air Temp (°F)	Avg Air Temp (°F)	Avg Max Rel Hum (%)	Avg Min Rel Hum (%)	Avg Rel Hum (%)	Avg Dew Point (°F)	Avg Wind Speed (mph)	Avg Soil Temp (°F)
Jan 2017	2.21	0.00	269 K	9.0	66.3 K	44.6	54.7	83	36	62	41.1	3.4	54.9
Feb 2017	2.97	0.00	339	10.5 K	73.0 K	50.2 K	61.3	81	35	57 K	45.0 K	3.4	58.9
Mar 2017	6.04	0.00	507 K	8.6	85.2	54.4	70.0	62	16	35	40.1	4.3 K	64.8 K
Apr 2017	7.54 K	0.00 K	597 K	8.1 K	89.5	56.5 K	74.6 K	56 K	12 K	28 K	38.1 K	4.8 K	69.7
May 2017	8.46 K	0.00	649	9.9	93.4 K	60.8 L	78.2 K	58 K	15 K	32 K	43.8 K	4.9	74.6
Jun 2017	9.24 K	0.00	713 K	12.8	104.0 K	71.6 L	88.1 K	59 K	13 K	29 K	50.5 K	4.4	81.9 K
Jul 2017	8.83 K	0.00	618	18.7	106.0 K	79.3 L	92.6 L	59 K	20 K	36 L	61.5 L	4.0 K	88.2 K
Aug 2017	8.24 K	0.00	580	17.6	105.2	78.2 L	91.5 L	63 K	19 K	35 L	59.8 L	3.9 K	84.8
Totls/Avgs	53.53	0.0	534	11.9	90.3	62.0	76.4	65	21	39	47.5	4.1	72.2

Flag Legend		
M - All Daily Values Missing	K - One or More Daily Values Flagged	
J - One or More Daily Values Missing	L - Missing and Flagged Daily Values	
Conversion Factors		
W/sq.m = Ly/day/2.065	inches * 25.4 = mm	(F-32) * 5/9 = c
	mBars * 0.1 = kPa	--

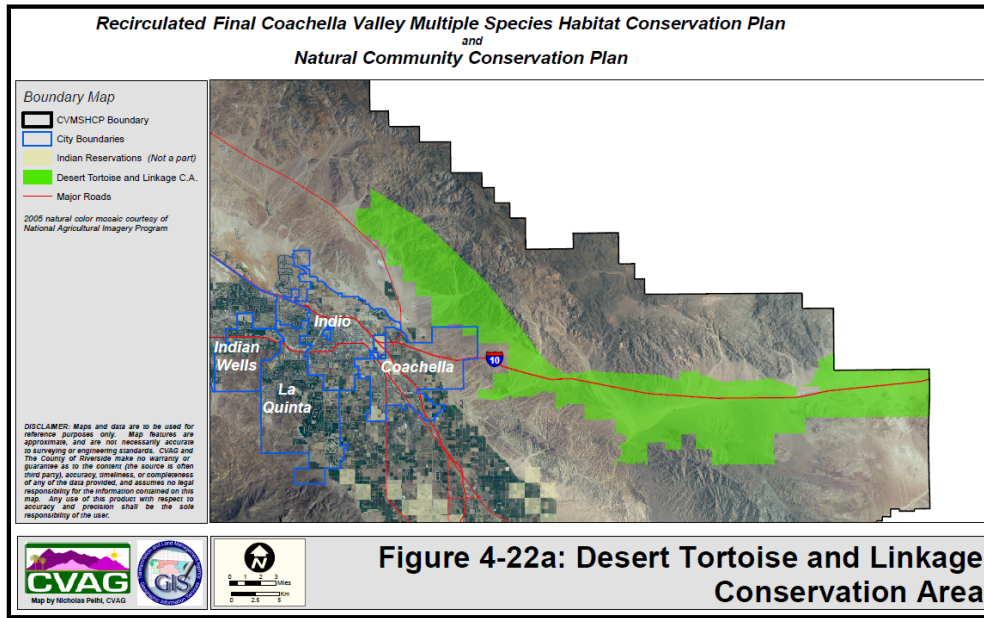
CVMSHCP Mecca Hills/Orocopia Mountains Conservation Area

http://www.cvmshcp.org/Plan%20Documents/_system_files/d4-23a.pdf



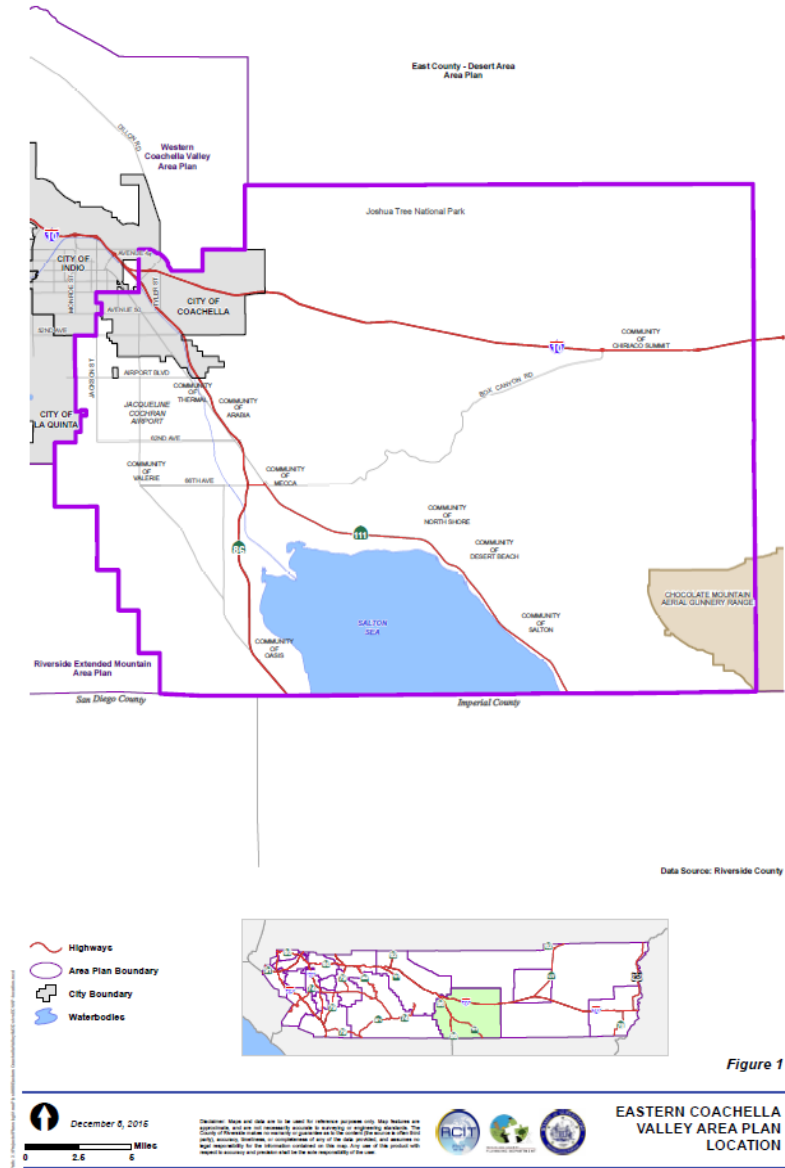
Desert Tortoise and Linkage Conservation Area.

http://www.cvmshcp.org/Plan%20Documents/_system_files/d4-23d.pdf



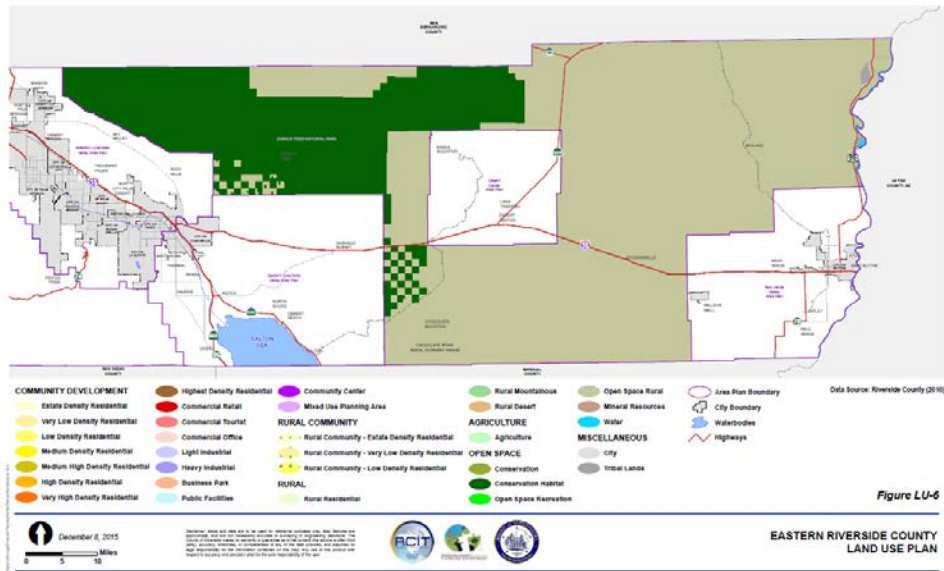
Eastern Coachella Valley Area Plan

http://planning.rctlma.org/Portals/0/genplan/general_Plan_2017/areaplans/ECVAP_120616.pdf?ver=2017-10-06-094257-937



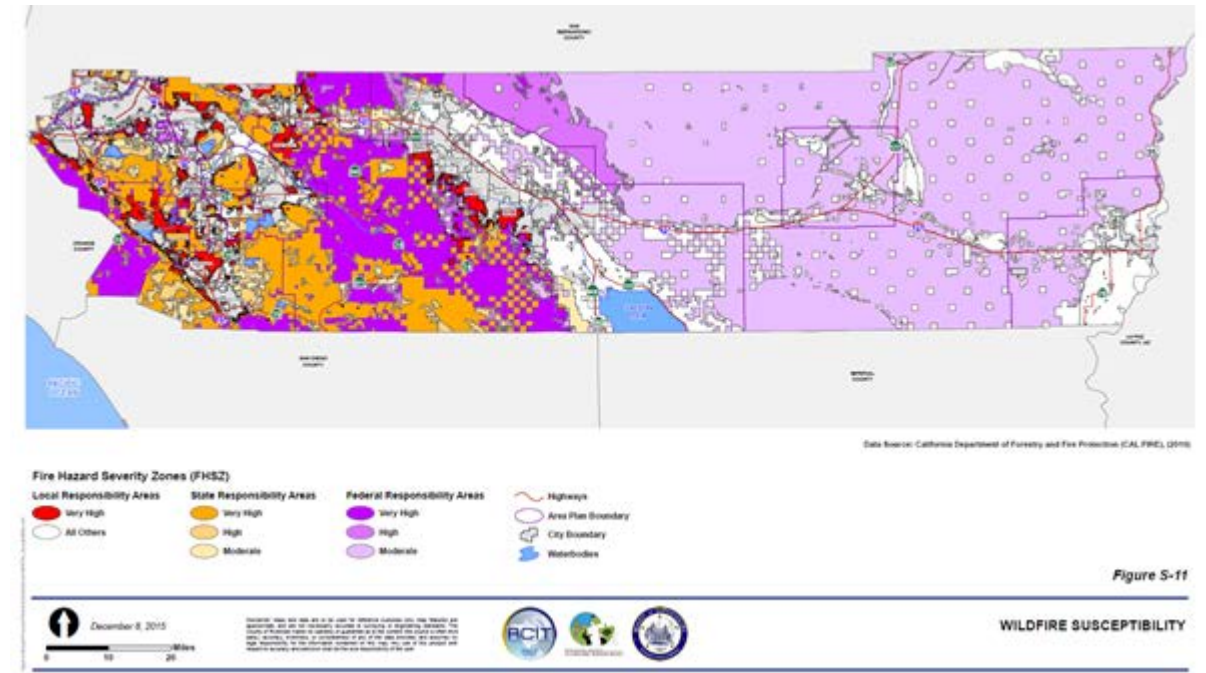
Eastern Riverside County Land Use Plan

http://planning.rctlma.org/Portals/0/genplan/general_Plan_2017/elements/OCT17/Ch03_Land_Use_July2017.pdf?ver=2017-10-06-093429-517



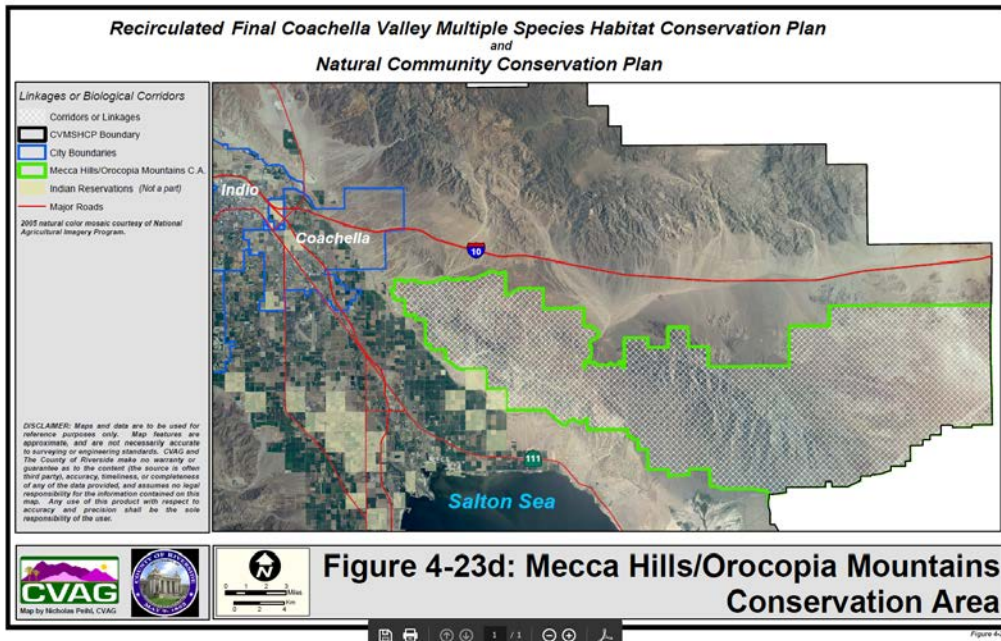
General Plan Safety Element

http://planning.rctlma.org/Portals/0/genplan/general_plan_2016/elements/Ch06_Safety-120815.pdf?ver=2016-04-01-100802-943



Mecca Hills/Orocopia Mountains Conservation Area, Biological Corridors and Linkages

http://www.cvmshcp.org/Plan%20Documents/_system_files/d4-23d.pdf



General Plan Safety Element

http://planning.rctlma.org/Portals/0/genplan/general_plan_2016/elements/Ch06_Safety-120815.pdf?ver=2016-04-01-100802-943

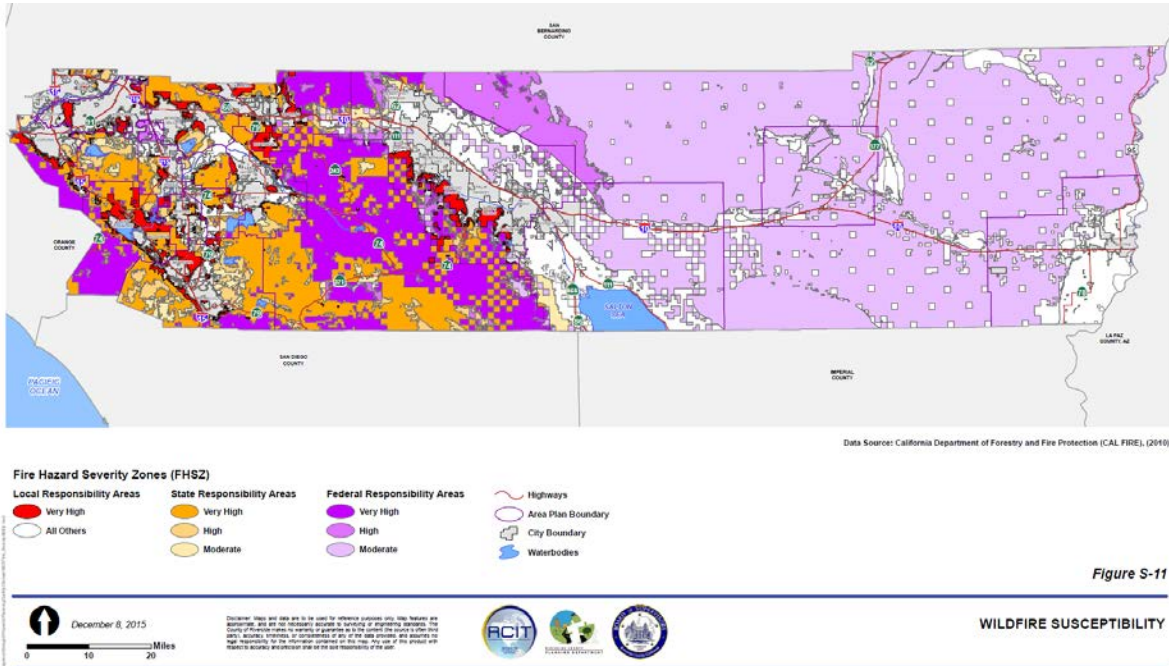


Figure S-11

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Appendix D: Mecca II Landfill SWPPP

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Mecca II Sanitary Landfill
Storm Water Pollution Prevention Plan (SWPPP)
July 2015

SWPPP Amendment No. 5

A. Resumption of Industrial Activities

This serves as notification that the Mecca II Sanitary Landfill (Site) is scheduled to resume site activities for one (1) day on **October 14, 2017**.

Notification of the resumption of activities shall take place by uploading this SWPPP amendment to the State Water Resources Control Board's (SWRCB) SMARTS website.

B. Temporary Suspension of Industrial Activities

As stated in Section A.1 of the SWPPP, the Site is typically open only for two (2) days per year, the second Saturday in April and the second Saturday in October. For the remainder of the year, landfill disposal and recycling operations are suspended. During suspension, the Site is not staffed and no materials or equipment are stored at the Site. The landfill disposal area is typically stabilized by covering the dumped refuse at the end of each operation day with 12-inch thick clean cover soil in order to prevent contact with storm water runoff among other purposes. Cover soil is properly graded to convey runoff away for the disposal area.

In accordance with Section X.H.3 of the Industrial General Permit (IGP), the Department shall notify the SWRCB seven (7) days prior to temporary suspension of industrial activities that exceed ten (10) or more consecutive days during the year. This SWPPP amendment, therefore, serves as notification to the SWRCB that industrial activities at the Site are scheduled to be suspended for the following period: **October 15, 2017 to April 13, 2018**.

Monitoring is infeasible at the Site during the period of temporary suspension of industrial activities due to the Site not being staffed and the Site's remote location, approximately 85 miles from the Department's headquarters. The Site will be fully stabilized for suspension of activities at the end of operation day on **October 14, 2017**.

Activities are scheduled to resume during the next Site opening on **April 14, 2018**.

Notification of the suspension of activities shall take place by uploading this SWPPP amendment to the SWRCB's SMARTS website.

C. Statement of 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 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, 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."



Jeff L. Gow, P.E.
Senior Civil Engineer
Riverside County Department of Waste Resources





Mecca II Sanitary Landfill

Storm Water Pollution Prevention Plan (SWPPP)

July 2015

SWPPP Amendment No. 4

A. Resumption of Industrial Activities

This serves as notification that the Mecca II Sanitary Landfill (Site) is scheduled to resume site activities for one (1) day on **April 8, 2017**.

Notification of the resumption of activities shall take place by uploading this SWPPP amendment to the State Water Resources Control Board's (SWRCB) SMARTS website.

B. Temporary Suspension of Industrial Activities

As stated in Section A.1 of the SWPPP, the Site is typically open only for two (2) days per year, the second Saturday in April and the second Saturday in October. For the remainder of the year, landfill disposal and recycling operations are suspended. During suspension, the Site is not staffed and no materials or equipment are stored at the Site. The landfill disposal area is typically stabilized by covering the dumped refuse at the end of each operation day with 12-inch thick clean cover soil in order to prevent contact with storm water runoff among other purposes. Cover soil is properly graded to convey runoff away for the disposal area.

In accordance with Section X.H.3 of the Industrial General Permit (IGP), the Department shall notify the SWRCB seven (7) days prior to temporary suspension of industrial activities that exceed ten (10) or more consecutive days during the year. This SWPPP amendment, therefore, serves as notification to the SWRCB that industrial activities at the Site are scheduled to be suspended for the following period: **April 9, 2017 to October 13, 2017**.

Monitoring is infeasible at the Site during the period of temporary suspension of industrial activities due to the Site not being staffed and the Site's remote location, approximately 85 miles from the Department's headquarters. The Site will be fully stabilized for suspension of activities at the end of operation day on **April 8, 2017**.

Activities are scheduled to resume during the next Site opening on **October 14, 2017**.

Notification of the suspension of activities shall take place by uploading this SWPPP amendment to the SWRCB's SMARTS website.

C. Statement of 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 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, 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."

Jeff L. Gow 3/29/17

Jeff L. Gow, P.E.
Senior Civil Engineer
Riverside County Department of Waste Resources





Mecca II Sanitary Landfill

Storm Water Pollution Prevention Plan (SWPPP)

July 2015

Amendment Log

Amendment No.	Date	Brief Description of Amendment	Prepared By
1	12/14/2015	SWRCB notification for suspension of industrial activities from 10/11/15 to 4/8/16	Jeff Gow
2	3/29/2016	SWRCB notification for suspension of industrial activities from 4/10/16 to 10/7/16	Jeff Gow
3	10/4/2016	SWRCB notification for suspension of industrial activities from 10/9/16 to 4/7/17	Jeff Gow
4	3/29/2017	SWRCB notification for suspension of industrial activities from 4/9/17 to 10/13/17	Jeff Gow



Mecca II Sanitary Landfill

Storm Water Pollution Prevention Plan (SWPPP)

July 2015

SWPPP Amendment No. 3

A. Resumption of Industrial Activities

This serves as notification that the Mecca II Sanitary Landfill (Site) is scheduled to resume site activities for one (1) day on **October 8, 2016**.

Notification of the resumption of activities shall take place by uploading this SWPPP amendment to the State Water Resources Control Board's (SWRCB) SMARTS website.

B. Temporary Suspension of Industrial Activities

As stated in Section A.1 of the SWPPP, the Site is typically open only for two (2) days per year, the second Saturday in April and the second Saturday in October. For the remainder of the year, landfill disposal and recycling operations are suspended. During suspension, the Site is not staffed and no materials or equipment are stored at the Site. The landfill disposal area is typically stabilized by covering the dumped refuse at the end of each operation day with 12-inch thick clean cover soil in order to prevent contact with storm water runoff among other purposes. Cover soil is properly graded to convey runoff away for the disposal area.

In accordance with Section X.H.3 of the Industrial General Permit (IGP), the Department shall notify the SWRCB seven (7) days prior to temporary suspension of industrial activities that exceed ten (10) or more consecutive days during the year. This SWPPP amendment, therefore, serves as notification to the SWRCB that industrial activities at the Site are scheduled to be suspended for the following period: **October 9, 2016 to April 7, 2017**.

Monitoring is infeasible at the Site during the period of temporary suspension of industrial activities due to the Site not being staffed and the Site's remote location, approximately 85 miles from the Department's headquarters. The Site will be fully stabilized for suspension of activities at the end of operation day on **October 8, 2016**.

Activities are scheduled to resume during the next Site opening on **April 8, 2017**.

Notification of the suspension of activities shall take place by uploading this SWPPP amendment to the SWRCB's SMARTS website.

C. Statement of 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 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, 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."

Jeff L. Gow, P.E.
Senior Civil Engineer
Riverside County Department of Waste Resources



Mecca II Sanitary Landfill
Storm Water Pollution Prevention Plan (SWPPP)
July 2015
SWPPP Amendment No. 2

A. Resumption of Industrial Activities

This serves as notification that the Mecca II Sanitary Landfill (Site) is scheduled to resume site activities for one (1) day on **April 9, 2016**.

Notification of the resumption of activities shall take place by uploading this SWPPP amendment to the State Water Resources Control Board's (SWRCB) SMARTS website.

B. Temporary Suspension of Industrial Activities

As stated in Section A.1 of the SWPPP, the Site is typically open only for two (2) days per year, the second Saturday in April and the second Saturday in October. For the remainder of the year, landfill disposal and recycling operations are suspended. During suspension, the Site is not staffed and no materials or equipment are stored at the Site. The landfill disposal area is typically stabilized by covering the dumped refuse at the end of each operation day with 12-inch thick clean cover soil in order to prevent contact with storm water runoff among other purposes. Cover soil is properly graded to convey runoff away for the disposal area.

In accordance with Section X.H.3 of the Industrial General Permit (IGP), the Department shall notify the SWRCB seven (7) days prior to temporary suspension of industrial activities that exceed ten (10) or more consecutive days during the year. This SWPPP amendment, therefore, serves as notification to the SWRCB that industrial activities at the Site are scheduled to be suspended for the following period: **April 10, 2016 to October 7, 2016**.


Monitoring is infeasible at the Site during the period of temporary suspension of industrial activities due to the Site not being staffed and the Site's remote location, approximately 85 miles from the Department's headquarters. The Site will be fully stabilized for suspension of activities at the end of operation day on **April 9, 2016**.

Activities are scheduled to resume during the next Site opening on **October 8, 2016**.

Notification of the suspension of activities shall take place by uploading this SWPPP amendment to the SWRCB's SMARTS website.

C. Statement of 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 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, 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."



Jeff L. Gow, P.E.
Senior Civil Engineer
Riverside County Department of Waste Resources





Mecca II Sanitary Landfill
Storm Water Pollution Prevention Plan (SWPPP)
July 2015
Amendment Log

Amendment No.	Date	Brief Description of Amendment	Prepared By
1	12/14/2015	SWRCB notification for suspension of industrial activities from 10/11/15 to 4/8/16	Jeff Gow
2	3/29/2016	SWRCB notification for suspension of industrial activities from 4/10/16 to 10/7/16	Jeff Gow



Mecca II Sanitary Landfill
Storm Water Pollution Prevention Plan (SWPPP)
July 2015
SWPPP Amendment No. 1

A. Temporary Suspension of Industrial Activities

As stated in Section A.1 of the SWPPP, the Mecca II Sanitary Landfill (Site) is typically open only for two (2) days per year, the second Saturday in April and the second Saturday in October. For the remainder of the year, landfill disposal and recycling operations are suspended. During suspension, the Site is not staffed and no materials or equipment are stored at the Site. The landfill disposal area is typically stabilized by covering the dumped refuse at the end of each operation day with 12-inch thick clean cover soil in order to prevent contact with storm water runoff among other purposes. Cover soil is properly graded to convey runoff away for the disposal area.

In accordance with Section X.H.3 of the Industrial General Permit (IGP), the Department shall notify the State Water Resources Control Board (SWRCB) seven (7) days prior to temporary suspension of industrial activities that exceed ten (10) or more consecutive days during the year. This SWPPP amendment, therefore, serves as notification to the SWRCB that industrial activities at the Site are scheduled to be suspended for the following period: **October 11, 2015 to April 8, 2016.**

Monitoring is infeasible at the Site during the period of temporary suspension of industrial activities due to the Site not being staffed and the Site's remote location, approximately 85 miles from the Department's headquarters. The Site was fully stabilized for suspension of activities on October 10, 2015.

Activities are scheduled to resume during the next Site opening on **April 9, 2016.**

Notification shall take place by uploading this SWPPP amendment to the SWRCB's SMARTS website.

B. Statement of 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 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, 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."

A handwritten signature in blue ink, appearing to read "Jeff L. Gow", is written over a horizontal line.

Jeff L. Gow, P.E.
Senior Civil Engineer
Riverside County Department of Waste Resources





Mecca II Sanitary Landfill
Storm Water Pollution Prevention Plan (SWPPP)
July 2015
Amendment Log

Amendment No.	Date	Brief Description of Amendment	Prepared By
1	12/14/2015	SWRCB notification for suspension of industrial activities from 10/11/15 to 4/8/16	Jeff Gow

National Pollutant Discharge Elimination System
(NPDES)

Storm Water Pollution Prevention Plan
(SWPPP)

For the

Mecca II Sanitary Landfill
July 2015

Prepared By



Owner and Operator

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- Figure 2 – Site Map and Active Areas
- Figure 3 – Surface Drainage Map
- Figure 4 – BMP Implementation Map
- Figure 5 – Chain of Custody Form

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- Table 1 – Industrial Activities, Pollutant Sources, Industrial Pollutants, and Corresponding BMP Measures

A. Introduction

The Riverside County Department of Waste Resources (Department) has developed and implemented this site-specific Storm Water Pollution Prevention Plan (SWPPP) for the Mecca II Sanitary Landfill (Site) in accordance with the requirements of the Industrial General Permit for Storm Water Discharges associated with Industrial Activities Order Number 2014-0057-DWQ NPDES Number CAS000001 (IGP).

The first objective of this SWPPP is to identify and evaluate existing and potential sources of pollution that affect the quality of industrial storm water discharges associated with landfill activities that take place at the Site. The second objective is to identify and implement site-specific Best Management Practices (BMPs) to reduce or prevent pollutants associated with landfilling activities in storm water discharges and authorized non-storm water discharges. This SWPPP has been formatted in general conformance with the outline provided in Section X of the IGP. The description of the assessment of the potential pollutant sources and corresponding BMPs at the Site are discussed throughout this SWPPP and also summarized in Table 1 – Industrial Activities, Pollutant Sources, Industrial Pollutants, and Corresponding BMP Measures.

A.1 Facility Description

The Mecca II Landfill is owned and operated by the Riverside County Department of Waste Resources (Department). The Department headquarters office address is 14310 Frederick Street, Moreno Valley, CA 92553. The landfill is located in unincorporated area of Riverside County at the following address: 95250 66th Avenue, Mecca, CA 92254 as shown on Figure 1 – Vicinity Map. The Site is remotely located approximately 90 miles from the Department's headquarters office and encompasses 80 acres, with a total of 19 acres used as landfill disposal area as shown on Figure 2 – Site Map and Active Areas.

Mecca II Landfill is a Class III facility as defined by California Code of Regulations (CCR) Title 27, Sections 20240 through 20260. The Site is currently operating under a Solid Waste Facility Permit (SWFP) No. 33-AA-0071 which was issued by the California Department of Resources Recycling and Recovery (CalRecycle) on January 15, 2015 and conforms to Waste Discharge Requirements Order No. 01-142.

The Site is typically open to the public two (2) days per year, the second Saturday in April and the second Saturday in October. The permit allows the Department the flexibility of responding to service needs by opening the Site, if necessary, on Wednesdays and Saturdays and further increase the number of operating days to not exceed four (4) days per week. Currently, the landfill is closed to the public on the following holidays: New Year's Day, Memorial Day, Independence Day, the Sunday prior to Labor Day, Labor Day, Thanksgiving Day, and Christmas Day. The exact holiday schedule is subject to change and, in this case, will be transmitted to the LEA as a minor change to the Solid Waste Facility Permit.

Currently, the Site is open to the public from 8:00 am to 4:30 pm. The permit allows the Department the flexibility of responding to service needs by increasing hours of operation to 6:00 am to 8:00 pm, with the stipulation that the site operates only during daylight hours. The Department shall notify the Local Enforcement Agency (LEA) pursuant to the requirements of Section 21620 (a) (1) (F) of CCR Title 27 when operating hours and/or days are changed.

A.2 General Facility Activities

The Site accepts non-hazardous solid waste for disposal and other materials, such as scrap metals, white goods/appliances, E-waste and universal waste for recycling and/or off-site management. The service area for the Site includes unincorporated communities of Mecca, Thermal, Oasis, North Shore, and surrounding agricultural lands. Generally, waste originating from anywhere within Riverside County may be accepted for disposal at the Site.

The types of waste material in customer vehicles are identified by site personnel who instruct customers to follow traffic control signs to guide customers to the appropriate unloading location.

The current solid waste disposal operation can generally be described as the “area method.” Solid waste materials are spread and compacted into thin layers within a specified area. At the end of each work day the compacted refuse layer is covered with a minimum of twelve (12) inches of intermediate cover soil.

B. Storm Water Pollution Prevention Plan Implementation and Revisions

This SWPPP shall be submitted to the California Regional Water Quality Control Board Colorado River Region (CRWQCB-CRR) prior to July 1, 2015 via the State Water Resources Control Board’s (SWRCB) Storm Water Multiple Application and Report Tracking System (SMARTS) website. All BMPs described in this SWPPP will be implemented prior to July 1, 2015. The installation of new or additional BMP measures due to changing site conditions will be implemented as needed. The SWPPP shall be revised and re-submitted via SMARTS website within 30 days whenever there is a significant revision or 90 days for any other revisions to the SWPPP.

In accordance with General Permit, Section XV Annual Comprehensive Facility Compliance Evaluation, the Department shall conduct one Annual Evaluation for each reporting year (July 1st to June 30th) and shall revise the SWPPP, as appropriate, and implement the revisions within 90 days of the Annual Evaluation.

B.1 Temporary Suspension of Industrial Activities

As stated in Section A.1, the Site is typically only open for two (2) days per year and located approximately 90 miles from the Department’s headquarters. For the remainder of the year, landfill disposal and recycling operations are suspended. During suspension, the Site is not staffed and no materials or equipment are stored at the facility. The landfill disposal area is stabilized by covering refuse with cover soil (refer to Section A.2) to prevent contact with storm water. Cover soil is properly graded to convey runoff away for the disposal area.

Beginning July 1, 2015 and in accordance with Section X.H.3 of the new IGP, the Department shall notify the SWRCB seven (7) days prior to temporary suspension of industrial activities that exceed ten (10) or more consecutive days during the year. Notification shall take place by uploading any of the following applicable information to the SWRCB’s SMARTS website:

- Any necessary SWPPP revisions addressing facility stabilization BMPs;
- Justification for why monitoring is infeasible at the facility during the period of temporary suspension of industrial activities (e.g., the facility is not staffed, or the facility is remote or inaccessible);
- The date the facility is fully stabilized for temporary suspension of industrial activities; and,
- The projected date that industrial activities will resume at the facility.

During the period of suspension, the Department is not required to:

- Perform monthly visual observation; or,
- Perform sampling and analysis

The Department shall notify the SWRCB via SMARTS the date in which industrial activities resume at the Site and will be required to perform all compliance activities as required by the IGP.

C. Planning and Organization

C.1 Pollution Prevention Team

Section X.D.1 of the General Permit requires the Department to identify the pollution prevention team responsible for developing, implementing, revising, and conducting monitoring program activities for this SWPPP. The Department's Engineering and Environmental Divisions constitute the groups responsible for developing, implementing, monitoring, and updating this SWPPP. The SWPPP was developed by personnel from both the Engineering and Environmental Divisions under the direction of the Environmental Division's Senior Civil Engineer (SCE) and the Engineering Division's SCE. The Engineering Division's SCE shall review, sign, and submit the SWPPP to the California Regional Water Quality Control Board, Colorado River Region (CRWQCB-CRR) via SMARTS.

The SWPPP team consists of the following:

- Environmental Technicians conduct monthly Site NPDES Inspections, observe any storm water or non-storm water discharges, and collect storm water discharge samples for testing.
- Environmental Engineers develop and implement the Monitoring Implementation Plan (Section H), prepare draft Annual Comprehensive Facility Compliance Evaluation report, review the SWPPP, and provide BMP recommendations.
- Hazardous Waste Inspectors implement the Department's Hazardous Waste Inspection Program, which detects and prevents landfill disposal of hazardous waste.
- Engineering Division Engineers develop, certify, and update the SWPPP as necessary in accordance with Section X of the General Permit. This responsibility includes the design of the surface drainage and erosion control system and design of the BMPs to be implemented at the site. Engineers also finalize the Annual Comprehensive Facility Compliance Evaluation report.
- Engineering Division Technicians coordinate the implementation of the final approved SWPPP and provide construction observation and inspection during the installation of the BMP measures.
- Engineering Division Technicians conduct monthly, pre-storm, and post-storm inspections, and coordinate any necessary or routine site maintenance activities.
- Landfill Maintenance and Litter Control Crew staff install and maintain BMPs and surface drainage structures throughout the site, per the Engineering Division's recommendations and direction. Site staff collect litter during days the site is operational.

The engineers and technicians from each division are trained and qualified to perform each other's assignments in regards to monitoring and inspections to ensure adequate coverage for the implementation of the SWPPP.

C.2 Other Requirements and Existing Facility Plans

This SWPPP has been developed and implemented in accordance with the General Permit, and is consistent with all applicable municipal, state, and federal requirements. The Department currently operates the Site according to regulatory requirements that are enforced by the following agencies: Riverside County Department of Environmental Health/ Local Enforcement Agency (LEA), South Coast Air Quality Management District (SCAQMD), California Regional Water Quality Control Board Colorado River Region (CRWQCB-CRR) and California Department of Resources Recycling and Recovery (CalRecycle).

Department staff has developed other facility-specific environmental compliance plans that complement the SWPPP's objectives of reducing and preventing pollutant discharges via the storm water drainage system and are available on-site, at the Department's main office, and on the Department's intranet, and can also be made available upon request. The following is a list of these plans:

- Waste Discharge Requirement
- Emergency Action Plan
- Hazardous Waste Inspection Program Guide
- Waste Acceptance Policy Guide
- Waste Recycling Program Guide

D. Site Maps

The following site maps have been developed to address the conditions of the General Permit Section X.E. “Site Map”:

- Figure 1 – Vicinity Map
- Figure 2 – Site Map and Active Areas
- Figure 3 – Surface Drainage Map
- Figure 4 – BMP Implementation Map

E. List of Industrial Materials and Potential Pollutant Source

Below is a description of potential pollutant sources at the Site:

E.1 Industrial Processes

E.1.a Solid Waste Disposal

Types of routine wastes accepted for disposal at the Site include, but are not limited to: municipal and agricultural waste, inert material, construction demolition/renovation waste, contaminated soil (subject to the Department’s written approval process), industrial waste (subject to the Department’s written approval process), and registered vehicles. Types of special wastes accepted at the Site for onsite disposal and/or off site recycling include, but are not limited to: tires, dead animals, gypsum/drywall, and appliances. Waste types and their unloading, handling, recycling, and disposal procedures are discussed in detail in the Department’s Waste Acceptance Policy Guide. During the previous two Site openings on April 11, 2015 and October 11, 2014, the Site received approximately 1.3 tons of refuse on each day. Hazardous waste is not accepted for burial at the Site.

The potential sources of pollution on the active disposal pad are as follows:

- Landfilled solid waste coming into contact with storm water runoff.
- Accidental fluid spills and leaks from heavy equipment and other vehicles operating on the active disposal pad.
- Sediment generated from erosion of daily cover stockpiles adjacent to the disposal pad and landfill slopes.
- Wind-blown litter coming into contact with storm water runoff.
- Track out generated by landfill customers and employees vehicles.

E.1.b Equipment Maintenance and Repairs

Equipment is typically only on-site for the two (2) days per year the Site is scheduled to be open. Equipment repairs, maintenance, and fueling are performed off-site prior to delivery of equipment to the site.

E.1.c Daily Cover Excavation

During the two (2) days per year the Site is open, daily cover soil material for landfill operations

is obtained daily from the Active Borrow Area as shown on Figure 2 – Site Map and Active Areas. Approximately two (2) cubic yards of cover soil material is used for each operating day.

Potential sources of pollution within the Borrow Area is as follows:

- Accidental fluid spills and leaks from heavy equipment working within the borrow area
- Sediment generated from erosion within the active excavation areas

E.1.d Site Construction Projects

This SWPPP will be included in the Contract Documents for all future public works construction projects at the Site. All awarded contractors and their subcontractors will be required to abide by the requirements of this SWPPP while working at the Site. All public works contract documents will also include a designated section for Storm Water Pollution Prevention and Hazardous Materials Management that the awarded contractors must implement throughout the duration of project construction. Each contractor will be required to prepare and submit to the Department a project-specific SWPPP, outlining procedures to reduce or prevent pollutants (directly or indirectly related to the contractor's activities) in storm water runoff. The contractor's SWPPP will become an attachment to the current site's SWPPP throughout the duration of the project. The existing Notice of Intent and monitoring program (Section H) for the Site will be sufficient for compliance with the General Permit for Storm Water Discharges associated with Industrial Activity as long as the SWPPP is amended during times of construction to include and address the Contractor's specific activities.

E.2 Material Handling and Storage Areas

E.2.a Fuel, Oil, & Lubricating Fluids

A radio communication tower is located on-site as shown on Figure 2 – Site Map and Active Areas. The tower is part of Riverside County's Public Safety Enterprise Communication (PSEC) system that provides emergency communication to law enforcement and fire/rescue agencies. The tower area consists of a 26' x 12' pre-fabricated equipment room, 1,000-gallon steel propane tank, and 150' tall antenna. The propane tank is an emergency fuel source to power a generator located within the equipment room in the event electrical service from the power utility is lost. With the exception of oil stored within the generator's engine, no other petroleum products are stored within the tower area. No fuel, oil, coolant, lubricants, or other fluids are stored on-site to support the landfill operation due to site being limited to two (2) openings per year.

- Accidental fluid spill and leak from emergency generator

E.2.b Metals/Recyclable Materials Collection and Temporary Storage

Residential customers are directed to separate and unload recyclable materials within the designated recycling area as shown on Figure 2 – Site Map and Active Areas. The area is used by customers to unload appliances, scrap metal, universal waste, and tires. At the end of each operation day all recyclable materials are transported to the Department's Lamb Canyon Landfill or an off-site recycler. White goods (appliances) and scrap metals are continuously separated out from the refuse stream that enters the site and directed to the designated recycling area. Hazardous components of recyclable materials (appliances and electrical items) are regulated as hazardous or universal waste and are removed by trained staff for transportation to off-site recycler. No recyclable materials are stored on-site overnight.

The potential sources of pollution within the designated recycling area are as follows:

- Recyclable items stored temporarily within the area coming into contact with storm water runoff.

E.2.c Hazardous Waste Load Check and Collection

Hazardous waste is not accepted for disposal at the Mecca II Landfill. The Department implements a Hazardous Waste Inspection Program to detect and prevent landfill disposal of hazardous waste as required by California Code of Regulations (CCR) Title 27, Section 20870 and to comply with Riverside County Ordinance No. 779. Waste Inspection staff perform random load checks on incoming refuse to the Site. When hazardous materials are found, the customer is informed that the materials are not accepted at the site and are provided with the proper methods of disposal. When hazardous materials are found without a responsible party, Waste Inspection staff remove the materials from the Site on the same day and transport to the Department's Central Accumulation Facility (CAF) at the Lamb Canyon Landfill in Beaumont, California or an approved off-site facility. All hazardous waste stored at the Lamb Canyon CAF is sent to an approved treatment, storage, and disposal facility for further handling. The Lamb Canyon CAF is permitted by the Department of Toxic Substance Control Act as a Permit-By-Rule Permanent Household Hazardous Waste Collection Facility (PHHWCF). No hazardous materials are stored overnight at the Site.

Due to the procedures outlined in the Department's Hazardous Waste Inspection and HHW Collection programs, hazardous waste has little to no exposure to storm water. Hazardous waste may be directly exposed to storm water by spilling or leaking these hazardous wastes. It may be indirectly exposed to storm water by being dumped with other waste, and soaking into the soil.

Potential sources of pollution within the hazardous waste metal storage container is as follows:

- Leaks from containers containing hazardous wastes including but not limited to: antifreeze, batteries (lead acid and alkaline), used oil and filters, cooking oil, paint care products, aerosols, florescent bulbs, smoke detectors, pesticides, cleaners, chlorine bleach, thinners, pool supplies, hairsprays, etc.

E.3 Dust and Particulate Generating Activities

Active daily cover excavation areas, unpaved roads, stockpiles, and other active disturbed areas (as show on Figure 2 – Site Map and Active Areas) are potential sources for generating dust and particulate on-site. These activities can create airborne dust that can travel within and outside of the site.

E.4 Significant Spills and Leaks

There have been no significant spills or leaks of toxic or hazardous pollutants released into storm water runoff within the last 5-year period. The Department has created a Hazardous Waste Inspection Program Guide to address any potential spills that may occur at the Site.

E.5 Non-Storm Water Discharges (NSWDs)

No illicit contributions to the storm water discharge shall exist at the Site. The Department does not plan on authorized NSWDs occurring at the Site.

E.6 Erodible Surfaces

Erodible surfaces at the Site include the active borrow area, landfill disposal area, and surrounding natural areas located within the landfill property. Erosion control methods utilized at the Site for these erodible surfaces are described in Section G.1.e Erosion and Sediment Controls. In addition, the Site is surrounded by natural terrain which is susceptible to natural erosion that may come into contact with storm water. Any erosion observed on-site will be noted and necessary measures (i.e. structural drainage improvements or best management practices) will be taken to repair the erosion and prevent future erosions from developing.

F. Assessment of Potential Pollutant Sources

The descriptive narrative of all industrial pollutant sources located at the Site can be found in this document under Section E List of Industrial Materials and Potential Pollutant Source. The characteristics and quantities of all potential pollutants materials that are handled, produced, stored, recycled, or disposed at the Site can be found in the Department's Waste Recycling Program Guide, Hazardous Waste Inspection Program, Household Hazardous Waste Collection Program, and Waste Acceptance Policy Guide. The description of the assessment of the potential pollutant sources and corresponding BMPs at the Site are listed in Table 1 – Industrial Activities, Pollutant Sources, Industrial Pollutants, and Corresponding BMP Measures and Section G Best Management Practices (BMPs). The effectiveness of the in-place BMP measures are evaluated as part of the routine site inspections conducted by the Pollution Prevention Team.

G. Best Management Practices (BMPs)

It is the Department's goal to prevent and/or reduce the potential pollutants described in Section E from coming into contact with storm water discharges by implementing site-specific BMPs as deemed necessary. The two types of BMPs implemented at the Site are non-structural (Minimum BMPs) and structural (Advanced BMPs). Non-structural BMPs generally consist of processes, prohibitions, procedures, schedule of activities, etc., that prevent pollutants associated with industrial activity from coming in contact with storm water. Structural BMPs generally consist of structural devices that reduce or prevent pollutants associated with industrial activity from coming in contact with storm water. The following sections describe the minimum and advanced BMPs implemented and maintained at the Site:

G.1 Minimum BMPs

The following is a description of the Minimum BMPs that are implemented and maintained at the Site to reduce or prevent pollutants in industrial storm water discharges:

G.1.a Good Housekeeping

Good housekeeping consists of practical procedures that are implemented on a regular basis to maintain a clean and orderly facility. Site inspections performed by Department personnel as described in Section H, which aid in ensuring that appropriate good housekeeping practices are being successfully implemented. Any areas that are not in compliance with the Department's good housekeeping requirements are documented and immediately addressed.

Active excavation areas, unpaved roads, stockpiles and other active disturbed areas are watered as necessary with a water truck to control dust generation. Dust generation is also reduced by the waste load cover requirement and the 15 mph vehicle speed limit throughout the landfill property.

Along with Site Operations staff, the Department's Landfill Maintenance and Litter Control Crew are responsible for litter control, site maintenance, and site improvements at the site. During each operation day, Operations and/or Litter Control staff pickup wind-blown litter, thus keeping the litter out of drainage areas and decreasing the probability of contaminants coming into contact with storm water runoff.

The Landfill Maintenance and Litter Control Crew is utilized to construct, repair, and maintain the surface drainage system throughout the Site. The duties of this crew include but are not limited to the following: construction of asphalt drains and bench crossing, installation of metal flume down drains, placement of sandbag check dams within drainage channels to capture sediment, and removal of accumulated sediment from drains and catch basins.

Vehicle spills, such as oil, brake fluid, etc. will be cleaned up immediately and contaminated soil properly disposed of. All hazardous wastes, including equipment maintenance waste are

immediately removed from the Site and disposed of pursuant to the applicable Federal, State, and local laws, regulations, and ordinances.

G.1.b Preventive Maintenance

Protection against potential erosion damage due to storm water runoff is provided by implementing and maintaining the site's BMPs as verified through regular inspections. Monthly and NPDES site inspections are conducted by Department personnel in order to identify problems and/or needed improvements of the surface drainage system and BMP measures. Areas of concern that are noted on the inspection reports are corrected in orderly and timely manners. Positive gradients along drainage benches and planer work areas are maintained to ensure proper drainage and to prevent erosion.

Municipal solid waste, engine oil, waste oil, diesel fuel, and lubricating fluids are handled as described in Section E in order to prevent the contact of these potential pollutant sources with storm water runoff.

G.1.c Spill and Leak Prevention and Response

As part of walk-around equipment inspections, operations staff looks for and report leaks/spills to aid in repairing the equipment as soon as possible. The equipment is on a set maintenance schedule and is maintained regularly. If a piece of equipment has minor leaks, plastic and/or drip pans are used to catch any leaking fluids. Any spills or leaks are cleaned up according to the Hazardous Waste Inspection Program Guide. Equipment and/or vehicles are not typically stored at the Site.

G.1.d Material Handling and Waste Management

As discussed in Section E.2, no materials are stored on-site. In general, materials are handled to minimize the potential for spills and leaks and also to minimize exposure of significant materials coming into contact with storm water runoff.

All materials or wastes on site are handled as little as possible in order to reduce the chance of spills through human error. All equipment is fueled, serviced, and repaired off-site prior to delivery for Site opening. Hazardous waste that is found on site is removed from the Site by the end of the operation day. Metals and other recyclables are placed in metal roll-off bins and immediately removed from the Site. Waste is covered with soil at the end of business hours. Stockpiled materials are located away from storm water flows. Trash generated by site personnel and other miscellaneous activities at the site are collected in trash receptacles and disposed of at the active disposal pad.

On days that the site is open, a portable chemical toilet is typically delivered to the site for use by onsite personnel. The portable chemical toilet is removed immediately after the Site is non-operational. The typical portable toilet is a self-enclosed structure, constructed of high strength fiberglass material, equipped with secondary containment. The contaminants that are likely to be present are human waste, portable toilet chemicals, and toiletries. The potential for these contaminants to come in contact with storm water is low since they are contained within a self-enclosed structure that is equipped with secondary containment.

G.1.e Erosion and Sediment Controls

It is the Department's goal to prevent water ponding and reduce erosion by means of good facility design and routine site maintenance. The site is designed to divert surface drainage away from the landfill areas. Appropriate drainage structures are constructed as sections of the landfill are being completed. A high-density polyethylene (HDPE) down drain has been installed on the southeast portion of the landfill disposal area. A Rip-rap pad was installed at the bottom of this down-drain

to help to reduce erosion at the bottom of the drain. Earthen berms along the hinges of the landfill's top deck are installed as necessary to guide surface water runoff into the down drain located on landfill slopes. Uniformly graded side slopes and adequate down gradient along benches and top deck areas promote proper drainage within the site. Long term stockpiles of earthen material are established at reasonable distances from major drainage courses, and are typically compacted or covered to minimize erosion damage and sediment runoff. In accordance with CCR Title 27 requirements, refuse within the landfill area is covered at the end of each operation day to ensure that refuse material does not come into contact with storm water.

Erosion control BMP measures protect the soil surface by covering and/or binding soil particles to limit the mobility of soil. The locations of current erosion control BMPs are shown on Figure 4 – BMP Implementation Map.

The Department implements fugitive dust control measures at the Site to comply with South Coast Air Quality Management District (SCAQMD) Rule 403 – Fugitive Dust. Active excavation areas, unpaved roads, stockpiles, and other active disturbed areas are watered as necessary with a water truck to control dust generation. Dust generation is also reduced by the waste load cover requirement and the 15 mph vehicle speed limit throughout the landfill property.

Site stabilization is maintained by conducting grading activities in a manner which, if possible, allows for phased construction at the site, thus minimizing the disturbance of native areas. Grading activities shall not block, divert, or impact drainage courses.

Track out has not been observed at the site, so no stabilized construction entrance is in place right now. If track out is found in the future, a rock apron and rumble racks will be installed as necessary to stabilize construction zones.

In addition to current erosion control devices being implemented, the following may be used in the future if deemed necessary: sandbags, gravel bags, fiber rolls, silt fences, and sedimentation basins.

G.1.f Employee Training Program

On an annual basis, site supervisors, technicians, and engineers from the Engineering, Environmental, and Operation divisions are required to attend a NPDES Storm Water Quality training class. This class discusses personnel responsibility for implementing the various compliance activities of the General Permit, BMP implementation and evaluations, BMP observations, monitoring activities, overview of the Monitoring Implantation Plan (MIP) and elements of the SWPPP. The class also discusses the types of pollutants typically encountered during construction and industrial/commercial activities, and provides information on the different types of BMPs available to control them. The class is conducted by trained Department staff.

Site facility personnel are also educated on pollution control laws and regulations during their initial hiring and at least once a year thereafter. A spill prevention review is provided annually to operation personnel to ensure adequate understanding of spill response and any past spill events or failures are discussed and staff is updated on any recently developed precautionary measures. Training on oil spill prevention, containment and retrieval methods are also provided to select staff from Operation during the annual hazardous materials business emergency plan training.

In addition to the load check program performed by the Department's Hazardous Waste Section, all site personnel are trained at a "Hazardous Waste Awareness" level and instructed on how to properly identify hazardous waste. This training also provides instruction on the proper

procedures that are to be followed when hazardous waste is identified in refuse loads. Only personnel from the Environmental Division's Hazardous Waste Section are allowed to handle hazardous waste materials discovered within the waste stream. Hazardous Waste Section personnel are trained in-house, on the job, and by professional instructors to be "first responder" and CPR certified. In addition, Engineering, Environmental, and Operation Supervision personnel are required to attend a 40-hour Hazardous Waste Operator Emergency Response (HAZWOPER) training course to become certified, and an annual 8-hour refresher course thereafter to maintain certification.

The Department maintains all documentation of all completed training classes and personnel that received training for five (5) years in the Department's electronic Training and Document Tracking Database (TaDTP).

G.1.g Quality Assurance and Record Keeping

After each site inspection, Department personnel transmit any information regarding the inspection, spills, maintenance activities, corrective actions, visual observations, etc. to the Senior Civil Engineer in charge of the Site. A work plan is then designed and implemented to address items noted in the site inspection report. The Department is in the process of developing a digital tracking spreadsheet that will include the following: date and type of inspection, short description of all noted items, corresponding repair plan and BMPs to be implemented, date repair work was completed.

The Department has developed management procedures to ensure that appropriate Department staff implements all elements of this SWPPP. This information is discussed in Section H.

G.2 Advanced BMPs

The following is a description of the Advanced BMPs that are implemented and maintained at the Site to reduce or prevent discharges of pollutants in storm water discharges in a manner that reflects best industry practice considering technological availability, economic practicability, and achievability:

G.2.a Control Devices

Surface runoff is controlled and conveyed through the Site by maintaining an approximate three percent minimum drainage gradient and with the use of various drainage structures located strategically throughout the Site as shown in Figure 3 – Surface Drainage Map. The following is a list of current drainage control devices that have been implemented at the site:

G.2.a.1 Earthen Berms

Earthen berms are utilized along the top deck of the landfill unit to quickly divert surface runoff into down drain channels. In addition, perimeter earthen berms are used to convey off-site runoff away from the landfill areas.

G.2.a.2 Track-Walking Slopes

Slopes without vegetation are track-walked so the soil material on the slope is compacted and horizontal divots are created. This decreases the velocity of storm water flow and aids in preventing slope erosion. This type of slope maintenance is done on an as needed basis.

G.2.a.3 Velocity Dissipation Devices

Velocity dissipation devices are constructed of rip-rap stone pads that are typically located at the downstream end of drainage structures. This BMP measure slows the velocity of concentrated storm water flows and also reduces soil sediment contamination of storm water. Velocity dissipation devices are maintained by site personnel as deemed necessary.

G.3 Design Storm Standards for Treatment Control BMPs

Existing surface drainage control structures were designed to handle storm water runoff from a 100 year, 24-hour frequency storm. This design method is a more conservative approach than what is required in the General Permit, Section X.H.6. However, starting July 1, 2015, any new treatment control BMPs (as described in the General Permit Section X.H.2.b.iii.) or drainage structures to be installed at the Site will be designed in accordance with the General Permit Section X.H.6, for the 85th Percentile, 24-hour Storm Event for the Site.

H. Monitoring Implementation Plan (MIP)

The Department has developed a Monitoring Implementation Plan in accordance with the requirements of the General Permit. The following sections describe the site specific monitoring implementation plan.

H.1 Team Members for MIP

Engineers and technicians from the Department's Environmental Division are responsible for performing monthly visual observations, discharge sampling event visual observations and discharge sample collection. Depending on the date and time of storm events, site operations personnel may be utilized to conduct inspections, visual observations, and sampling.

H.2 Discharge Locations

The following table summarizes the discharge locations at the Mecca II Sanitary Landfill:

Discharge I.D.	Discharge Location
MIISW01	West side of the site, asphalt down drain

Mecca II Sanitary Landfill discharge locations are illustrated on Figure 3 – Surface Drainage Map.

H.3 Monthly Visual Observations Procedures

The Department shall visually observe each drainage area discharge point at least once per calendar month, on the select days when the facility is scheduled to open. The monthly visual observations shall be conducted during landfill operation hours and on days without precipitation.

The discharge point shall be observed for the visual presence or indications of prior, current or potential unauthorized non-storm water discharges (NSWDs) and their source(s). Possible NSWDs that could occur at the landfill include spills and leaks of leachate or gas condensate.

The Department shall also visually observe the drainage areas where landfill activities and all supporting activities are ongoing. Observation areas shall include all areas identified in the SWPPP as potential pollutant sources. In addition, the Department will observe the condition and operation of structural BMPs. Deficiencies or maintenance of the BMPs will be identified so that appropriate action can be completed. Suggestions for supplemental BMPs will also be included, where appropriate, when monthly visual observations are performed.

At this time, the Department has no authorized NSWDs discharges at the site. In the future, if the Department has an authorized NSWDs, the Department shall update the SWPPP and MIP to reflect the site change.

H.4 Sampling Event Visual Observation Procedures

Sampling event visual observations shall be conducted at the same time sampling occurs at a discharge location. At each discharge location where a sample is obtained, the Department shall visually observe and record the presence or absence of floating and suspended materials, oil and grease, discoloration, turbidity, odors, trash/debris and sources(s) of any discharged pollutants.

If the Department is not able to visually observe a discharge location during the sampling event, the Department shall record which discharge locations were not observed during the sampling event and

the reason why observations were not completed.

H.5 Sampling Procedures

The Department shall collect and analyze storm water samples from two (2) qualifying storm events (QSEs) within the first half of each reporting year (July 1 to December 31) and two (2) QSEs within the second half of each reporting year (January 1 to June 30). A QSE is a precipitation event that produces a discharge for a least one drainage area and is preceded by 48-hours with no discharge from any drainage area. Sampling events shall be limited to the days that the facility is open and operating.

The Department shall collect samples from each discharge location within four (4) hours of the start of the discharge. If the QSE begins within the previous 12-hour period before facility operating hours, the Department shall collect samples within four (4) hours of the facility opening. For example, if the QSE begins on Monday morning at 1AM, continues until 2PM, and the landfill opens at 6AM on Monday, the Department shall have from 6AM until 10AM to collect stormwater discharge samples.

Sample collection shall be conducted during facility operating hours and when sampling conditions are not restricted due to dangerous weather conditions. Dangerous weather conditions include flooding, electrical storms or when storm size/intensity prohibits safe ingress and egress from discharge sample locations.

Sampling procedures for obtaining a discharge sample is as follows:

- 1) Collect stormwater samples from the discharge locations identified on the SWPPP map, or as specifically directed.
- 2) Some stormwater discharge sample locations have a sampler sump (generally those discharge locations that convey stormwater over concrete).
- 3) When stormwater flow is of sufficient rate/volume, collect the stormwater samples directly upstream of the sampling sump.
- 4) Samples shall be collected from the horizontal and vertical center of the flow line, from a turbulent section of the flow.
- 5) Minimize stirring up bottom sediments in the discharge channel; avoid touching the bottom or sides of the stormwater channel.
- 6) Hold the sampling container so the opening faces upstream.
- 7) Avoid touching the inside of the container to prevent cross contamination.
- 8) Keep the sample free from uncharacteristic debris. Debris that is typical of the discharge is OK.
- 9) Fill the bottle to the appropriate level depending on the analyte to be tested, without overfilling the container.
- 10) VOC sample bottles need to be filled differently than all other sample bottles. Slowly fill VOC sample bottles until a reverse meniscus is formed over the top of the collection bottle (the surface of the water should be convex). Carefully and immediately screw the cap onto the bottle. A small amount of water should drip from the bottle when the cap is screwed on. Once the cap is secured tight, turn the bottle over (cap side down) and gently tap the bottle. The sample has been collected properly if there are no air bubbles visible.
- 11) When stormwater flow is NOT of sufficient rate/volume to allow sample collection directly from the stormwater channel, the sump will be utilized to facilitate sampling.

- 12) Remove standing water from the sump.
- 13) Hold the sample container in the sump, in the void space of the sump, and allow the stormwater to flow directly into the sample container.
- 14) Repeats steps 3 through 13 as many times as is necessary to collect the required number of sample bottles.

H.6 Visual Observation Response Procedures

The Environmental Division shall submit monthly visual observations, sampling event visual observations and laboratory test results to the Engineering Division for review. The Engineering Division shall assess the merits and significance of the visual conditions documented and recommendations provided by the Environmental Division. As determined appropriate by the Engineering Division, the Engineering Division shall revise the SWPPP based on the visual observations and recommendations. SWPPP revisions shall include revised BMPs, as necessary, when the visual observations indicate pollutant sources have not been adequately addressed in the SWPPP. If the SWPPP has adequately addressed the pollutant source and corresponding BMPs, but the visual observations are a result of improper BMP implementation, then an appropriate remedy shall be implemented. The implementation schedule of any such remedy shall be determined by the Engineering Division.

H.7 Field Monitoring Instrument Calibration Procedure

The Department shall utilize field monitoring instruments to analyze the discharge samples for pH. The Department is utilizing an Hanna Instrument HI 98127/HI 98128 and the field monitoring instrument calibration instructions are as follows:

From normal measuring mode, press and hold the MODE button until OFF on the secondary LCD is replaced by CAL. Release the button. The LCD enters the calibration mode displaying “pH 7.01 USE” (or “pH 6.86 USE” if the NIST buffer set was selected)

After 1 second the meter activates the automatic buffer recognition feature. If a valid buffer is detected then its value is shown on the primary display and REC appears on the secondary LCD. If no valid buffer is detected, the meter keeps the USE indication active for 12 seconds, and then it replaces it with WRNG, indicating the sample being measured is not a valid buffer.

For a two-point calibration, place the electrode in pH 7.01 (or pH 6.86) buffer. After the first calibration point has been accepted, the “pH 4.01 USE” ;message appears. The message is held for 12 seconds, unless a valid buffer is recognized. If no valid buffer is recognized, then the WRNG message is shown. If a valid buffer (pH 4.01, pH 10.01 or pH 9.18) is detected then the meter completes the calibration procedure. When the buffer is accepted, the LCD shows the accepted value with the “OK 2” message and then the meter returns to the normal measuring mode.

For better accuracy, frequent calibration of the instrument is recommended. In addition, the instrument must be recalibrated whenever:

- a) The pH electrode is replaced.
- b) After testing aggressive chemicals.
- c) Where high accuracy is required
- d) At least once a month

H.8 Visual Observation Records

Visual observation records shall include the date, approximate time, locations observed, presence and probably source of any observed pollutants, name of person(s) that conducted the observations and any response action(s) and/or additional SWPPP revision(s) necessary in response to the visual observations.

All discharge samples submitted for laboratory analysis shall be transported with chain of custody documentation (refer to Figure 5 – Chain of Custody Form)Figure 5 – Chain of Custody Form.

The Department shall retain, for a period of at least five (5) years, either a paper or electronic copy of all storm water monitoring information, records, data and reports required by this General Permit. Copies shall be kept at the Department Headquarters, located at 14310 Frederick Street, Moreno Valley, CA.

I. References

California State Water Resources Control Board, Order 2014-0057-DWQ DWQ National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated With Industrial Activities, April 1, 2014.

California State Water Resources Control Board, Order No. 01-142, Waste Discharge Requirements for Mecca II Sanitary Landfill, November 14, 2001.

Riverside County Waste Management Department, Emergency Action Plan – Mecca II Sanitary Landfill, September 2014.

Riverside County Waste Management Department, Hazardous Waste Inspection Program Guide, February 2014

Riverside County Waste Management Department, Waste Acceptance Policy Guide, April 2014


Riverside County Waste Management Department, Waste Recycling Program Guide, February 2014

Riverside County Waste Management Department, Mecca II Hydrology Study, January 2015.

Riverside County Department of Environmental Health/ Local Enforcement Agency, Solid Waste Facility Permit – Mecca II Sanitary Landfill, January 15, 2015.

J. Statement of 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 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, 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."



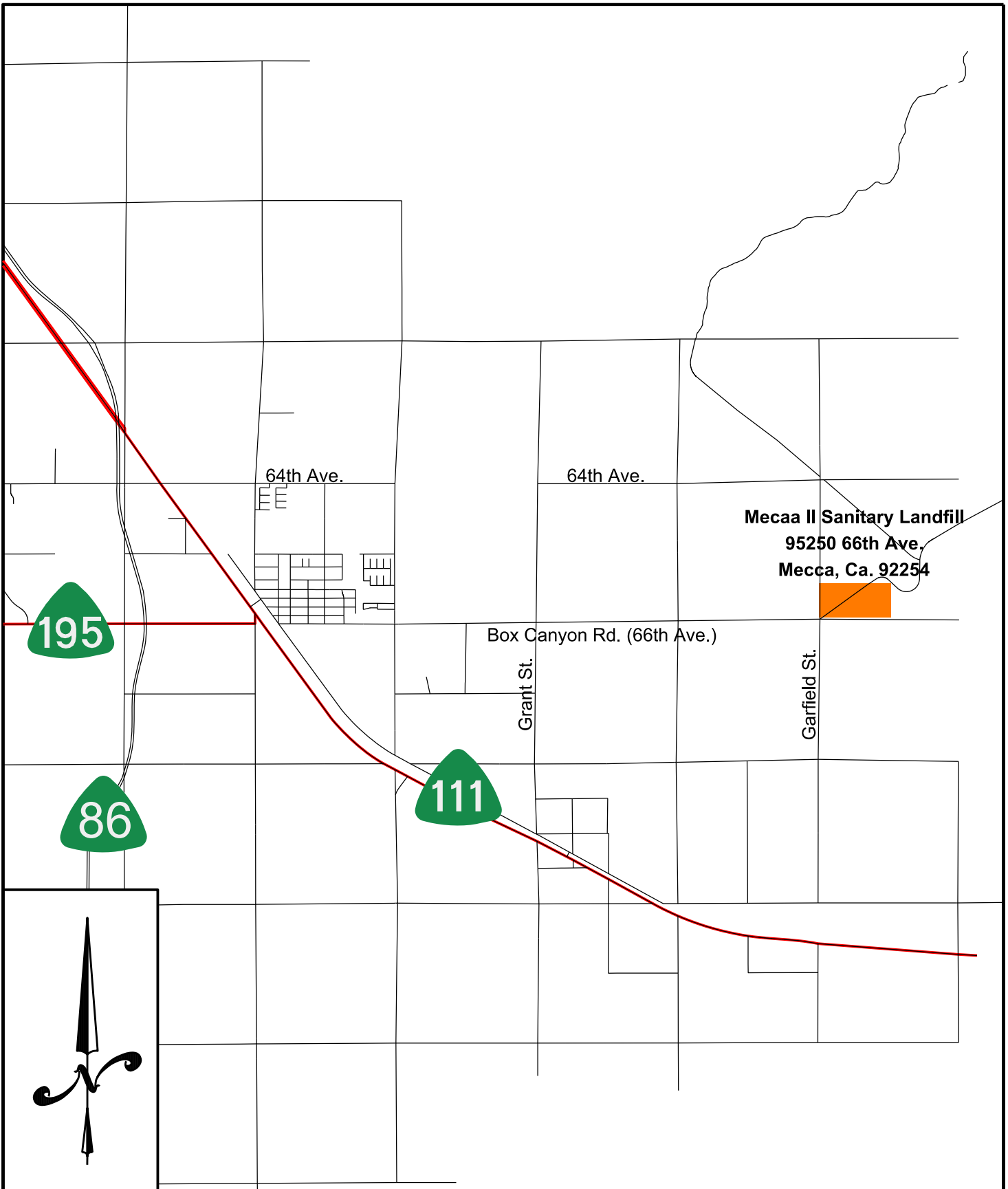
Jeff L. Gow, P.E.
Senior Civil Engineer
Riverside County Department of Waste Resources



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Figure 1 – Vicinity Map

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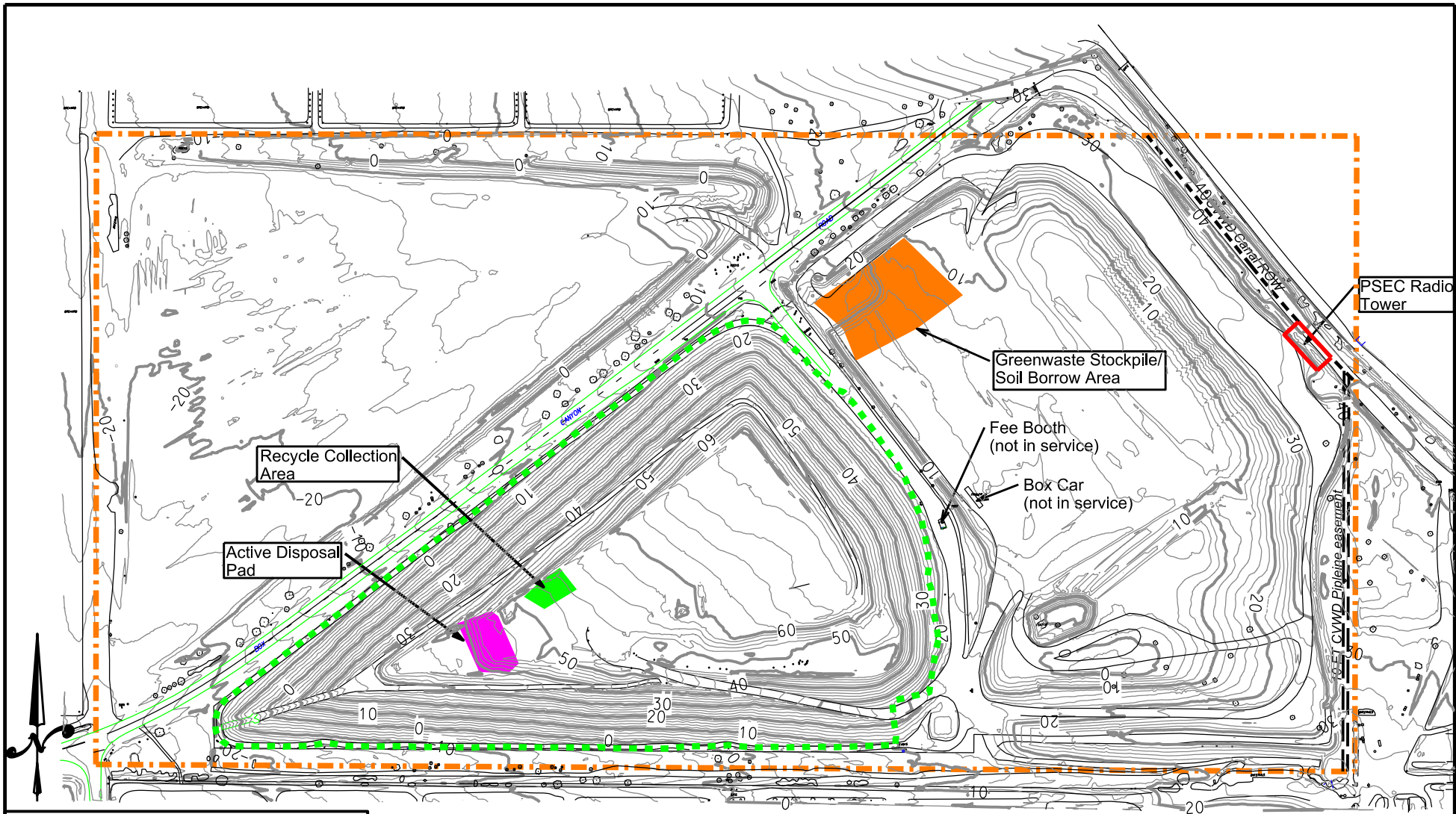


Mecca II Sanitary Landfill Storm Water Pollution Prevention Plan <h2 style="text-align: center;">Vicinity Map</h2>		Figure 1
File Directory:	/sites/mecca/SWPPP/2015/Fig_1_Meccall_SWPPP_vicinity.dgn	Date: June 8, 2015
		Scale: 1"=5,000'







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Figure 2 – Site Map and Active Areas

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LEGEND

-  Landfill Disposal Area (unlined - 19 acres)
-  Property Line (80 acres)
-  Ground Contours (January 21, 2015)
-  Active Disposal Pad
-  Recycle Collection Area
-  Stockpile/Borrow Area

Note: This site is only open on the second Saturday of April and October



Mecca II Sanitary Landfill
Storm Water Pollution Prevention Plan
Figure 2
Site Map & Active Areas

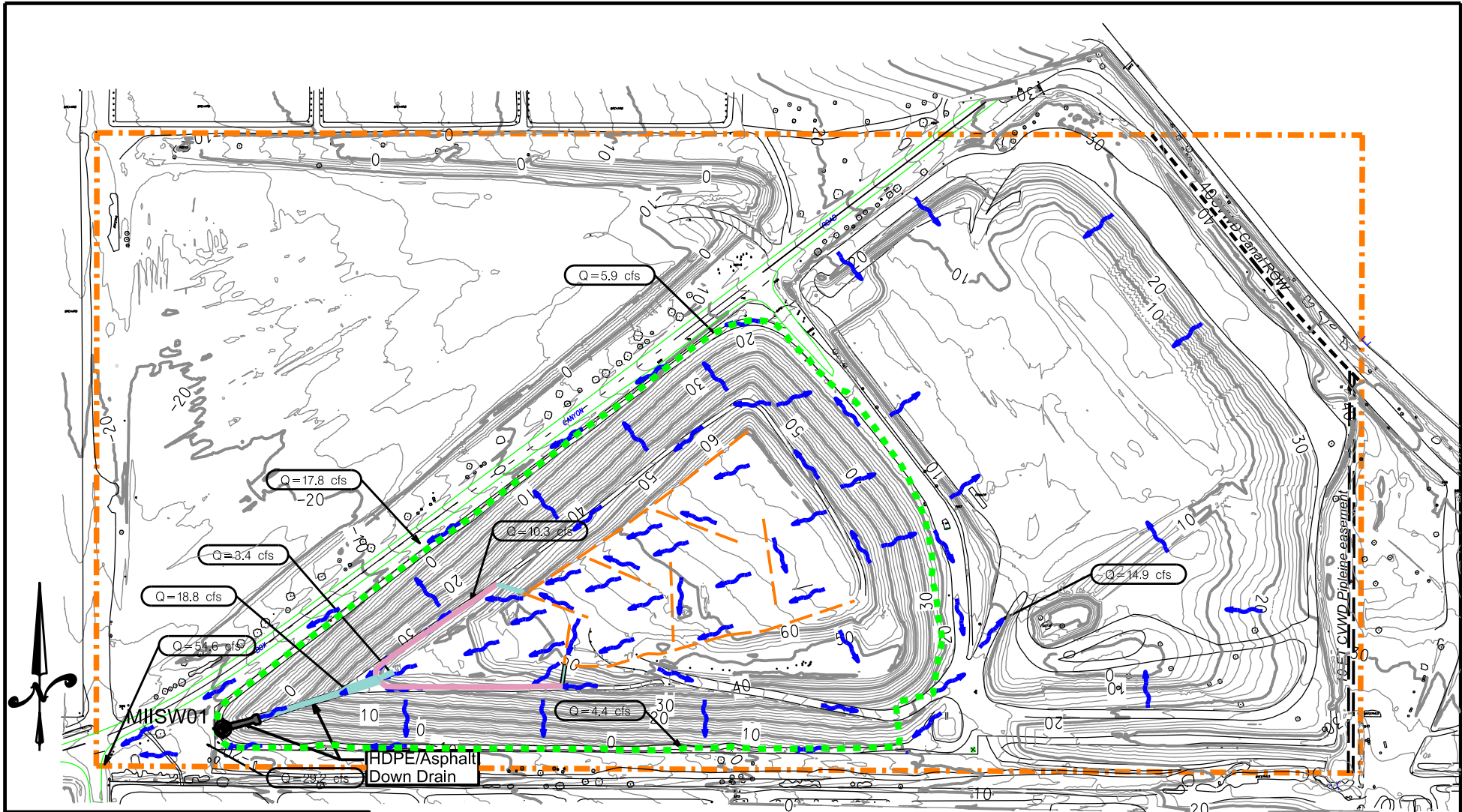
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Date: June 17, 2015	Topo Date: January 21, 2015	Scale: 1"=300'
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Figure 3 – Surface Drainage Map

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LEGEND

- - - Landfill Disposal Area (unlined - 19 acres)
- - - Property Line (80 acres)
- Ground Contours (January 21, 2015)
- - - Storm Water Surface Drainage
- Storm Water Sample Location
- - - Earthen Diversion Berms
- - - Rock-lined Swale
- - - HDPE Down Drain

Note : Flowrate "Q" is based on a 100-year storm event.



Mecca II Sanitary Landfill
Storm Water Pollution Prevention Plan
Figure 3
Surface Drainage Map

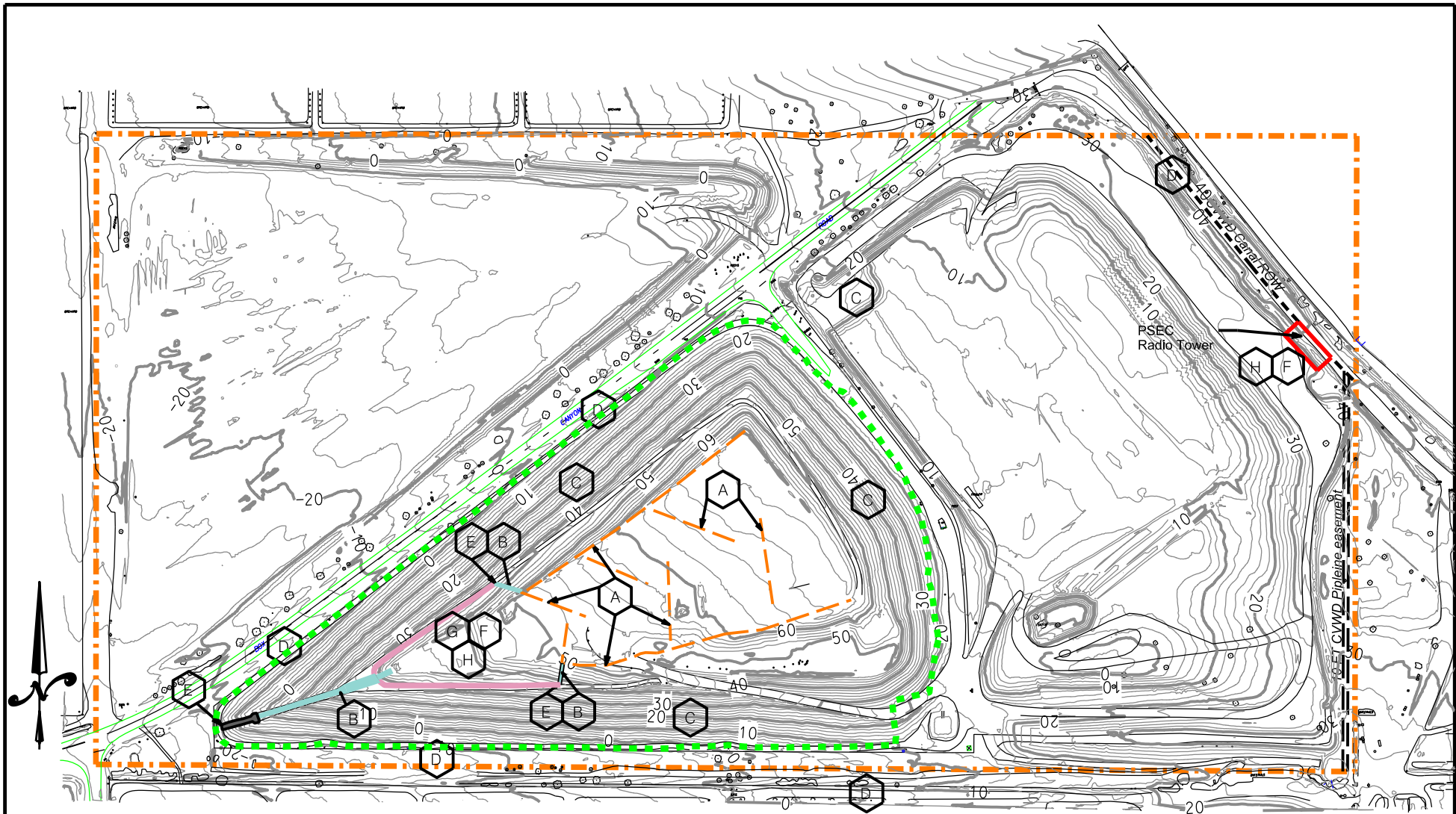
File Directory: engineering/sites/mecca/swppp/2015/fig_3_Drainage.dgn

Date:	June 17, 2015	Topo Date:	January 21, 2015	Scale:	1"=300'
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Figure 4 – BMP Implementation Map

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Notes

- A. Earthen Diversion Berms
- B. High-Density Polyethylene Down-Drains
- C. Track Walk Slopes
- D. Litter Fence
- E. Velocity Dissipating Device
- F. Spill Prevention and Control
- G. Designated Waste Collection Areas
- H. Contaminated Soil Prevention and Remediation

LEGEND

- Landfill Disposal Area (unlined - 19 acres)
- Property Line (80 acres)
- Ground Contours (January 21, 2015)
- Earthen Diversion Berms
- Rock-lined Swale
- HDPE Down Drain



Mecca II Sanitary Landfill
 Storm Water Pollution Prevention Plan
Figure 4
BMP Implementation Map

File Directory: engineering/sites/mecca/swppp/2015/fig_4_BMPs.dgn

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Figure 5 – Chain of Custody Form

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Table 1 – Industrial Activities, Pollutant Sources, Industrial Pollutants, and Corresponding BMP Measures

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Table 1
Industrial Activities, Pollutant Sources, and Corresponding BMP Measures
at the
Mecca II Sanitary Landfill

Area	Activity	Pollutant Source	Pollutant	Best Management Practices (BMPs)
Active Disposal Area	Landfilling Operations	Stormwater runoff coming into contact with the various types of wastes accepted at the landfill	Sediment, nutrients, metals, organics, toxicants, floatable materials, oxygen-demanding substances, oil, grease, bacteria and pesticides	Refuse is covered with soil before the end of each day. Earthen Berms are utilized to divert runoff away from active work face.
		Daily Cover Stockpile adjacent to disposal pad	Sediment	Site water trucks apply water throughout the working day to stabilize stockpiles. Some stockpiles are track-walked to prevent erosion and fiber rolls are placed around the toes to retain any sediment runoff
		Leaky Heavy Equipment working in the active disposal pad	Oil and grease	Routine preventative maintenance is performed on all heavy equipment and daily walk-around inspections are conducted by operators.
		Wind-blown litter inside drainage structures	Trash debris such as paper, plastic bags, cardboard, and other light trash that can be blown away from the disposal pad by wind	Litter fences strategically placed along the perimeter of the landfill unit catch a majority of the wind-blown litter. Operations and Refuse Control staff remove wind-blown litter within the site as needed.
Borrow Area Operation	Excavation, Stockpiling and Transportation of Daily Cover and Protective Cover	Borrow areas, access roads, and stockpiles generating dust and sediment	Dust particles and sediment	Site water trucks apply water throughout the working day along unpaved roads, excavation areas, and stockpiles to stabilize the earthen material and control dust.
		Slope Erosion	Sediment	Slopes are track-walked using a dozer
Metals/Recyclable Materials Collection & Hazardous Waste (HW) Collection Area	Accumulating Metals/Recyclable Materials & HW	Stormwater runoff coming into contact with the various types of Metals/Recyclable Materials Collection & HW	HW coming into contact with stormwater runoff during collection from load checks on days in which the site is open. Recyclable materials stored temporarily onsite coming into contact with stormwater runoff while the site is open.	Metals/recyclable materials are either placed in metal bins and/or pickup trucks to prevent soil contamination. HW materials with irresponsible parties that are discovered during load check are placed directly in storage containers on pickup trucks. All materials are removed from the site on the day of the site opening.

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