

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

959



SUBMITTAL DATE:
June 7, 2016

FROM: Department of Waste Resources

SUBJECT: Resolution No. 2016-147 for the Adoption of a Mitigated Negative Declaration and Approval of the Corona Landfill Southeast Drainage Channel Improvement Project, District 1 [\$0-Department of Waste Resources Enterprise Funds]

RECOMMENDED MOTION: That the Board of Supervisors:

1. Adopt Resolution No. 2016-147, approving the Corona Landfill Southeast Drainage Channel 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) Corona No. 2015-02, concluding that with mitigation, the Project does not cause significant environmental impacts.

BACKGROUND:

Summary
(continued)


Hans Kernkamp
General Manager-Chief Engineer

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost:	POLICY/CONSENT (per Exec. Office)
COST	\$ N/A	\$ N/A	\$ N/A	\$ N/A	Consent <input type="checkbox"/> Policy <input type="checkbox"/>
NET COUNTY COST	\$ N/A	\$ N/A	\$ N/A	\$ N/A	

SOURCE OF FUNDS: N/A	Budget Adjustment: No
	For Fiscal Year: 16/17

C.E.O. RECOMMENDATION: APPROVE

BY: 
Steven C. Horn

County Executive Office Signature

MINUTES OF THE BOARD OF SUPERVISORS

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

Ayes: Jeffries, Tavaglione, Benoit and Ashley
Nays: None
Absent: Washington
Date: June 21, 2016
xc: Waste

Kecia Harper-Ihem
Clerk of the Board
By: 
COUNTY

Prev. Agn. Ref.: | **District:** 1 | **Agenda Number:**

12-2

FORM APPROVED COUNTY COUNSEL
BY:  ANITA C. WILLIS
DATE: 6-9-16
Departmental Concurrence

A-30
 Positions Added
 4/5 Vote
 Change Order

SUBMITTAL TO THE BOARD OF SUPERVISORS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA
FORM 11 - Resolution No. 2016-147 for the Adoption of a Mitigated Negative Declaration and Approval of the Corona Landfill Southeast Drainage Channel Improvement Project, District 1 [\$0-Department of Waste Resources Enterprise Funds]
DATE: June 7, 2016
PAGE: 2 of 3

(Summary)

Since the final closure of the Corona landfill in 1988, the Riverside County Department of Waste Resources (Department) has conducted post-closure maintenance activities, including maintenance of the landfill slopes adjacent to the South East Drainage Channel (SE Channel), a drainage channel running along the southern banks of the landfill's disposal footprint. Each year the Corona Landfill suffers damage due to erosion and flooding as a result of the constant and increasing urban run-off and high velocity storm water coursing through the SE Channel. High velocity flows have caused failure of the riprap protecting the landfill slope, causing the rip rap to separate and slide down to the slope's channel several inches. Site inspections and historical records revealed that the channel is under capacity near the inlet, and that the grouted riprap protecting the landfill slopes sustains repeated damage every winter.

The Project analyzed in EA No. Corona 2015-02 proposes to increase the capacity of the channel to significantly reduce flooding events at the landfill and install a revetment system to protect the landfill slopes (either a concrete channel or articulated concrete blocks).

California Environmental Quality Act (CEQA) Findings

EA No. Corona 2015-02 (attached) was prepared by the Department 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 (attached). As a result, the Department 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/MND was transmitted to responsible and trustee agencies, interested parties, and neighboring properties, for a 30-day comment period that began on April 9, 2016 and ended on May 11, 2016. Public notice, advertising the comment period for the NOI and EA/MND, was published in the Press Enterprise. Copies of the EA were made available to the public at the Department Headquarters, the Riverside County Clerk, the Corona Public Library, Riverside County Library and the El Cerrito Public Library, as well as made available on the Department'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 (District) and the United States Fish and Wildlife Service (USFWS). No new significant environmental impacts were identified as a result of the comment letters; however, in response, the Department made insignificant modifications within the text of the EA for clarity. In addition, mitigation measures BIO-2 and BIO-3 were updated with minor technical revisions, providing equal or more effective measures, as permitted under State CEQA Guidelines section 15074.1. Furthermore, as no new significant effects were raised, the minor technical changes prepared by the Department would not trigger the need for recirculation of the EA/MND, as stated under State CEQA Guidelines section 15073.5. Additions within the EA/MND are shown in underline while deletions are shown in ~~strike through~~. The comment letters along with Department responses are attached.

Impact on Citizens and Businesses

Completion of the Project will improve drainage along the SE Channel, protecting the landfill and surrounding residents from flooding events and continued erosion.

**SUBMITTAL TO THE BOARD OF SUPERVISORS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA
FORM 11 - Resolution No. 2016-147 for the Adoption of a Mitigated Negative Declaration and Approval of the
Corona Landfill Southeast Drainage Channel Improvement Project, District 1 [0-Department of Waste
Resources Enterprise Funds]**

DATE: June 7, 2016

PAGE: 3 of 3

SUPPLEMENTAL:

Additional Fiscal Information

The Engineer's estimate for this project is \$900,000. The Project is designated for funding under the District's Five Year Capital Improvement Plan for Zone 2. Upon obtaining the necessary regulatory permits, the Department will, at a later date, seek authorization from the Board for bidding the Project and approving contract documents, under separate Board actions.

Attachments:

1. Resolution 2016-147
2. NOI & EA Corona No. 2015-02
3. MMP for EA Corona No. 2015-02
4. Comment Letters with Department Responses

RESOLUTION NO. 2016-147

**ADOPTING A MITIGATED NEGATIVE DECLARATION AND APPROVING THE
CORONA LANDFILL SOUTHEAST DRAINAGE CHANNEL IMPROVEMENT
PROJECT**

WHEREAS, the Corona Landfill site, located south of Magnolia Avenue, immediately adjacent to Interstate 15 within the City of Corona, was opened in 1951 and operated by the City of Corona (hereinafter referred to as the “City”) as a trash burning facility; and

WHEREAS, in 1958, the Riverside County Road Department, on behalf of the County of Riverside (hereinafter referred to as the “County”), took over site operations from the City and started operating the site as a solid waste disposal facility in 1958; and

WHEREAS, the Riverside County Department of Waste Resources (formerly part of the County Road Department and hereinafter referred to as the “Department”) assumed responsibilities for landfill operation and subsequently closed the landfill in 1988; and

WHEREAS, the Department continues to provide post-closure maintenance and environmental monitoring at the closed Corona Landfill in accordance with an approved post-closure maintenance plan; and

WHEREAS, annually with each rainy season, the Corona Landfill is subject to significant erosion and flooding as a result of the constant and increasing urban run-off and high velocity storm water coursing through the southeast drainage channel, resulting in damage to the landfill and its ancillary water/gas monitoring systems; and

WHEREAS, the Department proposes the Corona Landfill Southeast Drainage Channel Improvement Project (hereinafter referred to as the “Project”) involving erosion control improvements at the inactive Corona Landfill. The Project will repair and improve landfill slope armoring and increase the capacity of the existing drainage channel; and

WHEREAS, all requirements of the California Environmental Quality Act have been met and the Department’s General Manager-Chief Engineer has found that with mitigation, the

1 Project will not have a significant adverse effect upon the environment and has completed a
2 Mitigated Negative Declaration; and

3 **WHEREAS**, the Environmental Assessment/Mitigated Negative Declaration thoroughly
4 addresses the environmental effects of implementing the Project, including the construction and
5 maintenance of the various improvements identified therein.

6 **NOW, THEREFORE, BE IT RESOLVED, DETERMINED AND ORDERED** by the
7 Board of Supervisors of the County of Riverside, in regular session assembled on June 21, 2016
8 that:

- 9 A. Review Period: The County has provided the public review period for the
10 Environmental Assessment/Mitigated Negative Declaration for the duration
11 required under State CEQA Guidelines sections 15073 and 15105.
- 12 B. Compliance with Law: The Environmental Assessment/Mitigated Negative
13 Declaration and Mitigation Monitoring Program were prepared, processed, and
14 noticed in accordance with the California Environmental Quality Act (Public
15 Resources Code Section 21000 et seq.) and the State CEQA Guidelines (14
16 California Code of Regulations Section 15000 et seq.).
- 17 C. Independent Judgement: The Environmental Assessment/Mitigated Negative
18 Declaration reflects the independent judgement and analysis of the County.
- 19 D. Mitigation Monitoring Program: The Mitigation Monitoring Program is designed
20 to ensure compliance during project implementation in that changes to the Project
21 and/or mitigation measures have been incorporated into the Project and are fully
22 enforceable through permit conditions, agreements or other measures as required
23 by Public Resources Code Section 21081.6
- 24 E. No Significant Effect: That the adopted mitigation measures avoid or mitigate any
25 potential significant effects on the environment identified in the Environmental
26 Assessment/Mitigated Negative Declaration to a point below the threshold of
27 significance. Furthermore, after taking into consideration the adopted mitigation
28 measures, Board of Supervisors of the County of Riverside finds that there is no

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substantial evidence, in light of the whole record, from which it could be fairly argued that the Project may have a significant effect on the environment. Therefore, the Riverside County Board of Supervisors concludes that the Project will not have a significant effect on the environment.

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. Corona 2015-02, 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, Benoit and Ashley
Nays: None
Absent: Washington

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 Karubastan
Deputy

NOI & EA Corona No. 2015-02



Hans W. Kernkamp, General Manager-Chief Engineer

**Notice of Intent to Adopt a Mitigated Negative Declaration For
Corona Landfill Southeast Drainage Channel Improvement Project
Environmental Assessment No. Corona 2015-02**

DATE: April 11, 2016
TO: Agencies and All Interested Persons
PROJECT NAME: Corona Landfill Southeast Drainage Channel Improvement Project (Project)
REVIEW PERIOD: April 11, 2016 to May 11, 2016
PROJECT LOCATION: The Project is located within the southern portion of the closed Corona landfill, south of the Magnolia Avenue and Compton Avenue junction, immediately adjacent to Interstate 15, within the City of Corona.

The Riverside County Department of Waste Resources (RCDWR), on behalf of Riverside County as Lead Agency, has determined that the proposed 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. Corona 2015-02.

The proposed project involves erosion control improvements to the existing Southeast Drainage Channel (SE Channel) at the inactive Corona Landfill. The project will repair and improve landfill slope armoring and increase the capacity of the existing drainage channel. In order to improve protection for the landfill slopes, the majority of the existing rip-rap protective cover will be removed and replaced with a revetment system consisting of Articulated Concrete Blocks. The total Project Area encompasses approximately 8.7 acres, 2.5 acres of which fall within the drainage area of the SE Channel, leaving the remaining 6.2 acres as a staging area for equipment, material storage, and other project related activities.

MND/EA No. Corona 2015-02 is available at the following locations: RCDWR website www.rcwaste.org or at 14310 Frederick Street in Moreno Valley and Riverside County Clerk at 2724 Gateway Drive in Riverside from 7:30 AM to 4:30 PM, Monday through Friday. The documents have also been sent to the following libraries: Corona Public Library, 650 S. Main St. Corona, CA (951) 736-2381; Riverside County Library, 3785 S. Neece St. Corona, CA (951) 279-2148; and El Cerrito Public Library, 7581 Rudell Road Corona, CA (951) 270-5012.

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 II, 14310 Frederick Street, Moreno Valley, CA 92553. Telephone (951) 486-3200/Fax (951) 486-3250

Written comments must be received at the above address by 5:00 p.m. on May 11, 2016. 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 June 21, 2016. 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 II

FILED / POSTED

County of Riverside
Peter Aldana
Assessor-County Clerk-Recorder

E-201600408
04/11/2016 08:38 AM Fee: \$ 0.00
Page 1 of 1
MAY 25 2016

Removed: By: Deputy



Environmental Assessment No. Corona 2015-02

For

Corona Landfill Southeast Drainage Channel
Improvement Project



April 2016

Riverside County Department of Waste Resources

14310 Frederick Street

Moreno Valley, CA 92553

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Acronyms and Abbreviations

ALT	Alternative
ACB	Articulated Concrete Block
BRA	Biological Resources Assessment
BMP	Best Management Practices
CH ₄	Methane
CO	Carbon Oxide
CO ₂	Carbon Dioxide
CAA	Clean Air Act
CCR	California Code of Regulations
CARB	California Air Resources Board
CCAA	California Clean Air Act
CEQA	California Environmental Quality Act
CalRecycle	California Department of Resources Recycling and Recovery
CIWMP	California Integrated Waste Management Plan
County	County of Riverside
DBESP	Determination of Biologically Equivalent or Superior Preservation
DPM	Diesel Particulate Matter
DTSC	California Department of Toxic Substances Control
EAP	Emergency Action Plan
EPD	Environmental Programs Division
EPA	U.S. Environmental Protection Agency
FE	Federal endangered (species)
GHG	Greenhouse gas
HAZWOPER	Hazardous Waste Operations and Emergency Response
HHW	Household hazardous waste
HHWSCP	Household Hazardous Waste Spill Contingency Plan
IS	Initial Study
JD	Jurisdictional Determination
LBV	Least Bell's Vireo
LEA	Local Enforcement Agency
LFG	Landfill gas
LOS	Level of service
MBTA	Migratory Bird Treaty Act
MND	Mitigated Negative Declaration
MSHCP	Multiple Species Habitat Conservation Plan (Western Riverside County)
ND	Negative Declaration
NO _x	Nitrogen oxides
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NPDES	National Pollutant Discharge Elimination System
O ₃	Ozone
PM-2.5	Fine particulate matter

PM-10	Respirable particulate matter
PLA	Permitted landfill area
PTS	Perris Transfer Station
PHHWF	Permanent household hazardous waste facility
RCA	Regional Conservation Authority
RACT	Reclaimable Anaerobic Composting Technology
RCDWR	Riverside County Department of Waste Resources
ROG	Reactive Organic Gases
SAA	Streambed Alteration Agreement
SCAG	Southern California Association of Governments
SR	State Route
ST	State threatened (species)
SOI	Sphere of Influence
SO _x	Sulfur Oxide
SSC	Species of Special Concern
STW	San Timoteo Watershed
SCAB	South Coast Air Basin
SJRW	San Jacinto River Watershed
SMARA	Surface Mining and Reclamation Act
SWFP	Solid Waste Facility Permit
SWPPP	Storm Water Pollution Prevention Plan
SCAQMD	South Coast Air Quality Management District
SARWQCB	Santa Ana Regional Water Quality Control Board
TAC	Toxic Air Contaminants
TIA	Traffic Impact Analysis
tpd	Tons per day
USGS	United States Geological Survey
USFWS	United States Fish and Wildlife Service
VOC	Volatile Organic Compounds
WDR	Waste Discharge Requirements
WWTP	Waste Water Treatment Plant

Chapter 1

Introduction

Purpose and Use

The purpose of the Environmental Assessment (EA) "Corona 2015-02" 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 an erosion control improvement project to the existing Southeast Drainage Channel (SE Channel) at the inactive Corona Landfill. Specifically, it will replace the existing damaged grouted riprap on the Channel's side slopes with an appropriate erosion protective surface that is designed to handle the storm water flow from a 100-year, 24-hour storm event.

The County of Riverside, as Lead Agency, and other responsible and regulatory agencies with approval authority over the project, will use EA "Corona 2015-02" to make informed decisions concerning the project's intended use and operation.

Compliance with CEQA

EA "Corona 2015-02" 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 "Corona 2015-02," 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 "Corona 2015-02" 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"/> Utilities/Service Systems
<input checked="" type="checkbox"/> Geology/Soils	<input checked="" type="checkbox"/> Noise	<input checked="" type="checkbox"/> Mandatory Findings of Significance

Impact Terminology

The following terminology is used in the EA to describe the levels of significance of impacts that could result from the proposed Corona SE Channel Improvement 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 impacts on those resources and any mitigation measures deemed necessary to reduce the impact to less than significant.

Chapter 2

Project Description

Project Location

The Corona Landfill is located south of the junction of Magnolia Avenue and Sherborn Street, immediately adjacent to I-15, and within the jurisdictional boundary of the City of Corona (City) (refer to **Figure 1, Project Vicinity Map**).

The landfill site is accessed from I-15, eastbound via Magnolia Avenue at the intersection of Magnolia Avenue and Downs Way where the landfill entrance gate is located (refer to **Figure 2, Project Area Map**).

The landfill property encompasses approximately 77 acres over seven parcels, three of which are owned by the City of Corona (approximately 58 acres) while the remaining four are County owned (approximately 19 acres). It is located in a portion of Section 32 of Township 3 South, Range 6 West of the San Bernardino Base and Meridian and can also be described as Riverside County Assessor’s Parcel Numbers (APN’s) 107-080-040, 107-080-010, 107-080-034, 107-080-005, 107-080-042, 107-080-006, and 107-080-041.

The project site is located within the four County-owned parcels (APNs: 107-080-010, 107-080-034, 107-080-005, and 107-080-006), which altogether form the southeastern portion of the landfill property. The project area encompasses approximately 8.7-acres, of which, 2.5 acres are within the drainage area of the SE Channel. The remaining 6.2-acres are to accommodate temporary construction activities on both sides of the SE Channel, including portions of three County-owned vacant parcels located south of the SE Channel and landfill property line, adjacent to I-15. These parcels can be described as APN’s 107-201-008, 107-201-009, and 107-201-010.

Zoning and Land Use

According to the City of Corona’s Zoning Map Book, dated June 12, 2009, the majority of the landfill property and project site is zoned M1 (Light Manufacturing), with the exception of APN 107-080-006, which is zoned M4 (Industrial Park). The zoning for the three County-owned vacant parcels is R1-20 (Single Family Residential, 20,000 sf. lot min). According to the City’s current General Plan Map Book, dated January 25, 2012, the land use designation for the landfill property is MU2 (Mixed Use- Industrial/Commercial).

The Corona Landfill property is surrounded by various land uses, ranging from a City of Corona animal shelter at the northwestern end of the landfill property, I-15 and Light Industrial uses to the west, General Industrial uses to the northeast, and Low Density Residential homes to the south.

Project Background/Characteristics

The Corona Landfill site was initially operated by the City of Corona as a trash burning facility in 1951. The County's Road Department started operating the site as a solid waste disposal facility in 1958. Upon formation in 1986, the RCDWR assumed responsibilities for landfill operation and subsequent final closure construction. The landfill accepted non-hazardous dry municipal and industrial waste until August 1986 when it was closed to the public. It is estimated that approximately 6,400,000 cubic yards of refuse were landfilled at the site.

The City was previously responsible for the operation and maintenance of the landfill gas (LFG) collection system and flare station until June 2010, when a mutual agreement (Agreement) was reached between the County and the City that established: (1) County's full responsibility to carry out post-closure maintenance, including the LFG system and flare station, to 2028; (2) City's shared financial responsibility for operation and maintenance of the LFG system and flare station; (3) equal financial responsibility for additional costs or savings associated with operation and maintenance of the LFG system and flare station caused by uncontrollable circumstance(s); and (4) full cooperation and mutual responsibility to perform any future environmental remediation efforts required by any local, state, and federal regulators during term of the Agreement.

The final closure of the Corona Landfill was carried out by the RCDWR starting in 1988, when a prescriptive final cover was constructed over the entire landfill mass for long-term protection of both the landfill and the environment. Since final closure of the landfill, the RCDWR has conducted post-closure maintenance activities, including maintenance of the landfill slopes adjacent to the SE Channel, a drainage channel running along the southern banks of the landfill's disposal footprint.

Each year the Corona Landfill suffers damage due to erosion and flooding as a result of the constant and increasing urban run-off and high velocity storm water coursing through the SE Channel. High velocity flows have caused failure of the riprap protecting the landfill slope, causing the rip rap to separate and slide down to the slope's channel several inches. Additionally, sections of the channel are undersized for a 100-year storm, as was evident from an approximate 2-year storm event in 2010, which caused flooding at the inlet resulting in damage to the landfill and its ancillary facilities/appurtenances. Subsequent site inspections and historical records revealed that the channel is under capacity near the inlet, and that the grouted riprap protecting the landfill slopes sustains repeated damage every winter.

Although no longer in active service of providing waste disposal capacity to the County and city residents and businesses, the Corona Landfill still has an impact on the system's long-term viability, environmental liability, maintenance obligations, and post-closure financial assurance for landfills under the requirements of Title 27, California Code of Regulations (CCR).

Proposed Project

The RCDWR proposes to increase the capacity of the channel to significantly reduce flooding events at the landfill and install a revetment system to protect the landfill slopes (either a concrete channel or articulated concrete blocks). As indicated in **Figure 2, Project Area**, the total Project Area/activity limit encompasses approximately 8.7 acres, 2.5 acres of which fall within the drainage area of the SE Channel, leaving the remaining 6.2 acres as staging areas for equipment parking and operation, material storage, and other project related activities. Construction of the project is targeted for summer 2016, at the earliest. Proposed project design alternatives are described below:

Channel Improvement Design Alternative 1

Alternative 1 consists of two distinct functional aspects. The first aspect involves constructing two small flood plains (approx. 0.72 acre in total) at the southwestern end of the drainage channel (encompassing portions of APNs 107-201-008, 107-201-009, 107-080-005, 107-080-006, and 107-080-034). In essence, this portion of the channel will be widened by pulling back the northern and southern banks, thus increasing the capacity of the channel to contain a 100-year, 24 hour rainstorm, preventing water from overflowing onto the adjacent landfill unit. No encroachment into the streambed will occur, nor will removal of existing vegetation within the channel be necessary during construction of the flood plains. Refer to **Figure 3, Site Plan** for location of proposed flood plains.

The second aspect consists of erosion control protection for the landfill slopes and flood plains. Erosion control will be achieved by lining the flood plains and replacing the entire existing grouted riprap along the southern slope of the landfill/channel's northern bank, with Articulated Concrete Block (ACB)- see **Figure 4, Grouted Riprap and ACB Design Cross-Sections**.

Portions of the southern channel bank are currently lined with a grouted riprap and portions consist of erosion-resistant sandstone bedrock. This project design scenario will not involve ACB installation on the southern channel bank. Instead, the existing grouted riprap on the southern channel bank will be repaired during project construction at locations where structural damage is evident. As a result, removal of existing vegetation within the channel will be necessary at those locations where ACB installation or repair to existing grouted riprap take place.

Conceptual Construction Work Plan

Construction of Alternative 1 consists of the following:

Work Item 1: Drainage Diversion Setup (on-going throughout the project)

The year-round urban runoff flow through the Project Area must be controlled as nuisance water and diverted from the working areas throughout project construction. This Work Item will be ongoing throughout the duration of the project. Work that occurs in the initial 600ft of the channel will not require water diversion since the area where the water flows, is the vegetated area to be preserved, which will not be affected by the project construction. Water will be allowed to flow freely within the initial 600 ft. of the channel. Downstream of the initial 600 ft., the water will be diverted away from the work areas, thus avoiding construction activities, by either directing the water into a pipe and running the pipe around the immediate work areas, or creating a levee around the work area to protect it from the stream.

Work Item 2: Floodplains Construction (est. 2-3 days to complete)

Two small floodplains (approximately 0.72 acre in total) will be constructed to create additional channel capacity. The floodplains will match the channel's grade and will be constructed on both sides of the channel from the inlet to approximately 600 feet downstream from the inlet. A total of approximately 2,100 cy of soil will be excavated. Since the soil within the proposed floodplain area contains a large amount of sand, gravel, and inert concrete debris, it is unknown as to how much soil may be reused for this project. For a conservative estimate, it is assumed that none of the excavated material can be used on the project and that the excavated material will be stockpiled on the landfill site. Refer to **Figure 3, Site Plan**, for the locations of all material storage areas, temporary and permanent, on-site. The soil stockpiles may be screened for suitable soil components for future drainage erosion control and/or landfill final cover maintenance works. The permanent soil stockpiles will be compacted and graded to blend into the surrounding landscape to minimize erosion and unsightliness. In addition to excavation, dirt berms from two to four feet high will be constructed in some sections of the perimeter of the floodplain on the north bank and berms from four to six feet high on the perimeter of the floodplain on the south bank to add capacity without expanding the floodplain footprints. It is estimated that approximately 1,356 cy of soil will be required to construct the berms. If the excavated material cannot be used, then this amount of material will need to be hauled to the site (in approximately 136 loads). It is assumed that the total 1,356 cy of berm construction soil, in combination with an additional 2,300 cy of clean dirt for ACB subgrade, will be imported to the site during floodplain construction and continuing through Work Item 3.

It is likely that the floodplains will be constructed one at a time, so as to avoid streambed crossing by equipment and thus impact to streambed habitat. To protect the streambed vegetation, equipment will have to be transported via surface roads and Bel Air Street to the vacant parcels to construct the southern floodplain.

Work Item 3: Vegetation Removal, Grouted Riprap Demolition, and Borrow Materials (est. 6 days to complete)

This work item consists of concurrent operations, including the removal of streambed vegetation downstream of the floodplains, except in conserved areas as denoted on **Figure 3 Site Plan** (showing the streambed preservation boundary); demolition of existing grouted riprap on the northern bank of the channel and some portions of the southern bank disposal of vegetation and transport of some riprap debris to the Badlands Sanitary Landfill, and importation of clean dirt from a borrow area nearby (< 20 miles roundtrip). Vegetation waste will be removed and transported to the nearby El Sobrante Landfill, where the vegetation may be disposed of and/or recycled. It is anticipated that all of the rocks from the grouted riprap demolition will be reused on-site or transported to other County landfills. Concurrently, clean dirt import for construction of the floodplain berms and ACB liner's subgrade from Work Item 2 will continue until completion during this Work Item. The imported dirt will be stockpiled within a designated staging area (see **Figure 3**, showing staging areas). Minimum equipment staging on the County-owned vacant parcels may be necessary during the dirt haul. Nuisance water diversion is assumed to continue during the active working hours throughout Work Item 3.

Work Item 4: ACB Revetment Subgrade Preparation (est. 5 days to complete)

This work item consists of grading the channel slopes, cut and fill, as necessary, to form an adequate subgrade for installation of the ACB revetment system. Current design does not require grading on the northern channel bank to exceed the depth of the landfill final cover, thus minimizing the possibility and amount of waste exposure. However, in order to increase stormwater flow capacity and slope stability, it is possible that grading along the northern bank may cut through the final cover. In this scenario, waste exposure and/or excavation may occur. If waste is exposed, it will be covered by the end of the day with a minimum of six inches (6") of dirt or an approved alternate daily cover, and a monolithic final cover repair, acceptable to all regulatory agencies, will be constructed over the exposed waste, forming the subgrade of the ACB revetment. If waste is encountered during excavation, proper waste excavation procedures and monitoring shall be performed, as required by a South Coast Air Quality Management District (SCAQMD) Rule 1150 Permit, to be obtained prior to construction. Waste shall be either reburied on site with an approved final cover constructed over the waste or hauled to a landfill.

The following activities are expected to be performed concurrent with construction of the ACB revetment subgrade:

- The existing grouted riprap apron at the channel's inlet will be modified to fit the inlet with the floodplains.
- Repair of the damaged portions of the grouted riprap on the southern bank will be carried out.
- Delivery and then installation of ACB revetment would begin as soon as a workable portion of the subgrade is completed.

Work Item 5: ACB Revetment Installation (est. 15 days to complete)

This work item primarily includes installation of the ACB revetment system on the prepared subgrade in the floodplains, along the entire length of the northern bank from the northern floodplain limit to the outlet by the railroad truss bridge and along some portions of the south slope. ACB materials may be stored in the staging areas prior to installation. ACB installation in the southern flood plain may require equipment staging on the adjacent County-owned vacant parcels. Energy dissipaters (such as grouted riprap aprons) may be constructed at the end of steep sections of the channel to slow down the velocity of water. Once complete, the urban drainage flow through the channel will be resumed by discontinuing water diversion.

Channel Improvement Design Alternative 2

An alternative project design scenario (Alternative 2) consists of only one aspect, where the entire channel, bed and banks, natural and created, will be lined with a concrete surface. This alternative will result in the removal of all existing vegetation and habitat within the drainage area, thus representing the environmental “worst-case” scenario of the project.

Conceptual Construction Work Plan

Construction of Alternative 2 consists of the following:

Work Item 1: Drainage Diversion Setup (occurring throughout the project)

The water diversion described in Alternative 1 would also be used with Alternative 2.

Work Item 2: Vegetation Removal, Grouted Riprap Demolition, and Borrow Materials (est. 12 days to complete)

This work item consists of concurrent operations, including the removal of all streambed vegetation, demolition of existing grouted riprap banks of the channel, disposal of vegetation, optional transport of riprap debris to Badlands, and importation of clean dirt from a borrow area nearby (< 20 miles). Vegetation waste will be transported to the nearby El Sobrante Landfill, where the vegetation may be disposed of and/or recycled. It is anticipated that all of the rocks from the grouted riprap demolition on both banks will be salvaged, either reused on-site or stockpiled for future transport to other County landfills whenever beneficial uses of these inert materials are needed after the completion of the project. Another option would be transporting all the riprap debris to the Badlands Sanitary Landfill during project construction. Clean dirt import for construction of the concrete channel's subgrade would begin during this work item. The imported dirt would be stockpiled within the designated staging areas on the north bank of the channel until used for subgrade preparation in the next work item (see Figure 3 Site Plan showing approximate staging area). Compared to the similar ACB Work Item 3, the Concrete Channel scenario has no restriction of equipment crossing of the streambed to the southern bank area, thus requiring no equipment transport to the southern bank area via haul trucks using residential streets.

Work Item 3: Concrete Channel Subgrade Preparation (est. 20 days to complete)

This work item would consist of preparing the subgrade of the channel for concrete placement, including grading the channel slopes and streambed and preparing the sandstone and limestone areas of the channel for concrete lining. Constructing an adequate subgrade in the areas containing sandstone will most likely consist of constructing an engineered fill (to achieve compaction) against the sandstone, while benching into it, and then trimming the slope back to create the final channel side slope. The limestone subgrade will most likely have to be constructed out of a concrete mix, since limestone cannot be benched into.

Work Item 4: Concrete Channel Construction (est. 15 days to complete)

This work item would consist of constructing the sub-drains and weep holes and placing concrete. Concrete will be placed throughout entire channel surface, bed and banks, from the inlet to the outlet by the railroad truss bridge. Energy dissipaters (such as grouted riprap aprons) may be constructed at the end of steep sections of the channel to slow down the velocity of water. Sub-drains and weep holes will be constructed before concrete placement.

Work Item 5: Drainage (est. 2 days to complete)

After the completion of the concrete channel, the urban drainage flow through the channel will be resumed by discontinuing the upstream diversion mechanism.

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 "Corona 2015-02" (*County of Riverside*)
- Authorization to Bid Plans and Specifications (*County of Riverside*)
- Approval of Construction Contract (*County of Riverside*)
- Waste Discharge Requirements update (*Santa Ana Regional Water Quality Control Board*)
- National Pollutant Discharge Elimination System Permit (*State Water Resources Control Board*)
- Rule 403 Notification (*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
- ~~Encroachment Permit~~ Approvals (*Riverside County Flood Control and Water Conservation District*)
- Encroachment Permit/Easement (*Surrounding Property Owner(s)*), if applicable
- Right of Way Encroachment Permit (*California Department of Transportation*)
- Miscellaneous Permits/Approvals (*City of Corona*), if applicable.
- 404 Clean Water Act Permit (*U.S. Army Corps of Engineers*)
- 401 Water Quality Certification (*Santa Ana Regional Water Quality Control Board*)
- 1602 Streambed Alteration Permit (*California Department of Fish and Wildlife*)

Chapter 3

Environmental Checklist

1	Project Title:	Corona Landfill Southeast Drainage Channel Improvement Project
2	Lead Agency Name:	County of Riverside
3	Contact Person and Phone Number:	Jose Merlan, Urban/Regional Planner II (951) 486-3200
4	Project Location:	Closed Corona Landfill, Corona, CA
5	Project Sponsor's Name and Address:	Riverside County Department of Waste Resources 14310 Frederick Street Moreno Valley, CA 92553
6	General Plan Designation:	Mixed Use- Industrial/Commercial (MU2)
7	Zoning:	M1 (Light Manufacturing), M4 (Industrial Park), R1-20 (Single Family Residential)

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 Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural/Paleontological Resources | <input type="checkbox"/> Geology/Soil |
| <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"/> Mandatory Findings of Significance |

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.

Jose Merlan

Signature

Jose Merlan, Project Planner
Riverside County Department of Waste Resources

4/8/16

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, and 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"/>

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

The project site currently consists of 2.5 acres that are within the drainage area of the SE Channel, and 6.2 acres that will be utilized to accommodate temporary construction. It is surrounded by the closed Corona Landfill to the north, residential housing to the south, a Robertson's Ready Mix plant to the southeast, and the 1-15 to the west of the proposed project site.

The Corona General Plan lists mountains, open space and agricultural areas, city views and scenic highways as important visual resources. Particularly, it cites the Cleveland National Forest as a major scenic resource as well as open space and agricultural areas, as they are said to “provide visual relief from urbanized areas.” Several major arterials contain visual elements that provide unique vistas that characterize individual neighborhoods, such as Prado Basin, the view south to the Santa Ana Mountains from the 1-15/SR 91 (Riverside) Freeway interchange, Ontario Avenue, which encompasses panoramic views to the north and the San Gabriel Mountains, and Grand Boulevard, which provides panoramic views and visibility to the circle of palm trees from various locations.

The Project consists of two alternatives, Alternative 1, which would replace damaged riprap with ACB and construct two small flood plains (approx. 0.72 acre in total) at the southwestern end of the drainage channel; and Alternative 2, which would line the entire channel with a concrete surface. Neither project alternative during construction or operation would interfere with views from any direction, due to the low profile of the construction project.

The Corona Landfill is not considered a scenic site by the Corona General Plan nor will it impede a scenic vista. Therefore, the project would not have an adverse effect on an existing scenic vista.

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 Interstate 15 (I-15) is adjacent to the project site, according to the California Department of Transportation Scenic Highway Program and Mapping System, I-15 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 and drainage facility are not natural features or landforms, and as such, are not considered a scenic resources. 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 urbanized with light industrial land uses along Sherborn St. to the southeast portion of the project, single family residential to the southwest, vacant parcels to the southeast, and the I-15 to the west. Moreover, native and non-native vegetation can be seen along the SE Channel, palm trees, tall, herbaceous riparian shrub is also present along the channel. Northerly, immediately adjacent to the SE Channel, is the closed Corona Landfill. There are no unique or scenic visual resources on the project site or in the vicinity. Furthermore, as previously stated, the landfill and drainage facility are not natural features or landforms, and thus the Corona Landfill, including the

drainage facility, are not considered scenic visual resources.

As discussed in the analysis above, question (a), the proposed improvements would not change the visual character or quality of the site and its surroundings. Further, the proposed project would not obstruct views of the surrounding areas.

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 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 or during operation. 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?
- 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?

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 a closed landfill and not farmland of any kind - unique or of statewide importance. The California Department of Conservation, Farmland Mapping and Monitoring Program has designated the project site as "Urban and Built-Up Land." The project site is not designated as Prime Farmland, Unique Farmland or Farmland of Statewide Importance and thus no farmland will be converted to non-agricultural uses as a result of the project.

FINDING: No Impact Is Identified

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

The project site is surrounded by single family residential to the south, light manufacturing and light industrial to the northwest and west side of the project, respectively. It is zoned M1 (Light Manufacturing), M4 (Industrial Park) and SFR (Single Family Residential) and thus, because the proposed project is not in an area zoned for agriculture, the proposed project would not conflict with any agricultural zone. The proposed project site is not subject to a Williamson Act contract according to the California Department of Conservation, Riverside County Williamson Act Map. Therefore, no impacts to Williamson Act contracts or conflicts with agricultural zoning would occur as a result of the proposed project.

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 M1, M4 and SFR. Those zones propose light manufacturing, industrial and single family residential development and is therefore not in conflict with forest or timberland zoning. 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 or conversion of forest land to non-forest use?

The Corona Landfill is surrounded by various land uses, ranging from a City Yard at the northwestern end of the landfill property, I-15 and Light Industrial uses to the west, General Industrial uses to the northeast, and Single Family Residential homes to the south. 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 is not located in close proximity to farmland as shown in preceding sections. The project site's Land Use designation is MU2 (Mixed Use-Industrial/Commercial) under the City of Corona General Plan. The proposed project consists of erosion control improvements to the SE channel of the closed Corona landfill, approximately 1,500 linear feet in length. 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 ongoing uses of the site, or 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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

- d. Expose sensitive receptors to substantial pollutant concentrations?
- e. Create objectionable odors affecting a substantial number of people?

An Air Quality Analysis and Global Climate Change Impact Analysis was prepared by Kunzman Associates Inc., in August 2015. The air quality report analyzed construction related criteria pollutants, and other pollutants of concern, such as toxic air contaminants (TACs), including asbestos and diesel particulate matter (DPM) for both the Alternative 1 (ACB) and Alternative 2 (concrete) design alternatives¹. The air quality analysis prepared by Kunzman Associates, Inc. was used, in large part, to answer questions 3a through 3f of this section. The air quality analysis can be found under Appendix A, Air Quality Analysis and Global Climate Change Impact Analysis.

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-3f. 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 South Coast Air Basin (Basin), and is therefore subject to the SCAQMD which requires that all projects be consistent with the current 2012 Air Quality Management Plan (AQMP). 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 2012 AQMP (most currently adopted version) is to set forth a comprehensive and integrated program that will lead the Basin into attainment with the federal 24-hour particulate matter, less than 2.5 microns (PM-2.5) standard, and to provide an update to the Basin's commitments toward meeting the federal 8-hour ozone standards.

¹ The numbering of Project activities/phases discussed in this section does not correspond to the listing of Work Items described in the conceptual work plan shown in Chapter 2, Project Description. The activities/phases assessed represents an itemized accounting of all Project activities. A list of the assessed activities/phases is located in Appendix A, Air Quality Analysis and Global Climate Change Impact Analysis.

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

The first criteria 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.

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 2012 AQMP if it does not exceed the growth assumptions in the 2012 AQMP. The growth assumptions in the 2012 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.

As discussed in subsequent sections, Air Quality 3 (b and c) the project is not expected to contribute to violations of any criteria pollutant thresholds, or to result in fugitive dust impacts. Moreover, compliance with Fugitive Dust Rule 403 as required by SCAQMD, will further reduce any potential construction air quality impacts to less than significant.

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 2012 AQMP would not be consistent with the AQMP.

Because the proposed project is *not* a growth-inducing project, it will not generate growth that will exceed the baseline growth for the region. Second, as discussed in subsequent sections, Air Quality 3 (b and c) the project is not expected to contribute to violations of any criteria pollutant thresholds, or to result in fugitive dust impacts. The project would be consistent with the growth assumptions of the 2012 AQMP, 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 exceed 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 both Alternative 1 (ACB) and Alternative 2 (concrete). There are no long term ongoing/operational emissions associated with the project. Short-term emissions consist of fugitive dust and other particulate matter, as well as exhaust emissions generated by construction-related vehicles (water trucks, dump

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 (NO_x) and sulfur oxide (SO_x); and 2) construction generated fugitive dust, particulate matter, less than 2.5 microns (PM_{2.5}) and particulate matter, less than 10 microns (PM₁₀).

Regional Air Quality Impact Analysis:

1. Construction Emissions (Short Term)

Construction emissions for the project were calculated according to the construction activities (phases) of the project, Activities 1-9 for Alternative 1 and Activities 1-6 for Alternative 2. Kunzman Associates Inc., analyzed all the activities of the project to determine the most intense activity which would represent the worst case scenario for analysis under the Air Quality Analysis report. The report concluded that Activity 4 would be the most intense for both Alternative 1 and 2, due to the quantity of equipment used and the overlapping of phases between Activities 2, 3, and 4. Since the analysis is designed to capture the worst case scenario in terms of air quality impacts, it is assumed that all other phases would have fewer emissions associated with them. The construction activities for the worst case scenarios (Alternative 1 and 2) are described below.

Alternative 1: ACB Scenario

It will take approximately 54 days to complete the construction of Alternative 1, over the course of 9 phases or activities, with construction activities occurring six days per week (M-S) between the hours of 7:30 AM and 4:30 PM. The following is a description of the activities (Activity 2-4, worst case scenario) for Alternative 1:

Worst case scenario (Activity 2 – 4)

These activities, which could occur simultaneously, include initial clearance of access roads, and setting up a hydrant for water access under Activity 2; vegetation and riprap removal and import of borrow material for Activity 3; and excavation and fill for Activity 4. Equipment planned for use for these activities would include off-road vehicles (Medium Excavator, Backhoe, Motor Grader, Medium Dozer, Wood Chipper, Water Truck, and Roller Compactor) and on-road vehicles (Superten trucks).

Alternative 2: Concrete Scenario

It will take approximately 57 days to complete the construction of Alternative 1, over the course of 6 phases or activities, with construction activities occurring six days per week (M-S) between the hours of 7:30 AM and 4:30 PM. The following is a description of the activities (Activities 2-4, worst case scenario) for Alternative 2:

Worst case scenario (Activity 2 – 4)

These activities, which could occur simultaneously, include initial clearance of

access roads, setting up a hydrant for water access under Activity 2; removal of vegetation and riprap and import of borrow material for Activity 3; and subgrade preparation, constructing the subdrains and weepholes and pouring concrete throughout the entire channel surface, bed and banks for Activity 4. Equipment planned for use for these activities includes off-road vehicles (Medium Excavator, Backhoe, Motor Grader, Medium Dozer, and a Water Truck,) and on-road vehicles (Superten Dump trucks).

Peak daily criteria air emissions under Alternative 1 design are expected to occur during implementation of Activity 4 (floodplain construction - vegetation removal, grouted riprap demolition, and dirt import). Likewise, peak daily criteria air emissions under Alternative 2 are expected to occur during implementation of Activity 4 (concrete channel subgrade preparation). This is due, in part, because Activity 4 for Alternative 1 overlaps with Activity 2 and Activity 3. Similarly, Activity 4, also the most intense activity for Alternative 2, overlaps with Activity 2 and Activity 3 as shown in Table A-1 and Table A-2 respectively.

a. Alternative 1 (ACB) Activity #4

**Table A-1
Alternative 1 (ACB) Activity #4**

Alternative 1, Activity 4	ROG	NOx	CO	SOx	PM10	PM2.5
On-Site ²	2.63	28.82	20.2	0.02	4.18	2.69
Off-Site ³	0.16	1.39	1.92	0.01	0.48	0.16
Total	2.8	30.21	22.12	0.03	4.66	2.85
Overlapping Total with Activities 2, 3 and 4	6.84	69.31	47.47	0.07	9.98	6.44
SCAQMD Threshold	75	100	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

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

As indicated in the Table A-1, the emissions of criteria pollutants during project operation for both on-site and off-site under the ACB design scenario will not exceed any of the SCAQMD thresholds. Therefore, no significant air quality impacts from mobile sources will occur during project construction. It should be noted that if the riprap debris is stockpiled on-site instead of being exported to Badlands Landfill during project implementation, the mobile emissions associated with debris hauling will not occur thus reducing the total NOx emission to a level further below the threshold. See Appendix A, Air Quality and Greenhouse Gas Focused Analysis, for CalEEMod Model Daily Emissions Printouts.

b. Alternative 2 (Concrete Channel) Activity #4

The total project equipment and on-road emissions are estimated based on the same emission factors and methodologies used in the ACB emission analysis, as the equipment and vehicle types for both scenarios are similar. Table A-2 shows the project's maximum

² On-Site emission from equipment/vehicles operated on-site

³ Off-Site emissions from equipment/vehicles operated on public roads.

daily mobile source emissions. Refer to Appendix A, Air Quality and Greenhouse Gas Focused Analysis for CalEEMod Model Daily Emissions Printouts.

**Table A-2
Alternative 2 (Concrete) Activity #4**

Alternative 2, Activity #4	ROG	NOx	CO	SOx	PM10	PM2.5
On-Site ⁴	1.39	15.06	10.09	0.01	0.91	0.79
Off-Site ⁵	0.12	0.54	1.55	0	0.34	0.1
Overlapping Total with Activities 2, 3 and 4	5.47	56.66	38.31	0.06	6.66	4.47
SQAQMD Threshold	75	100	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

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

As indicated in the Table A-2, which represents the worst case and most intense work activity under Alternative 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. It should be noted that if the riprap debris is stockpiled on-site instead of being exported to Badlands Landfill during project implementation, the mobile emissions associated with debris hauling will not occur thus reducing the total NO_x emission to a level further below the threshold.

2. Fugitive Dust – PM-10 & PM-2.5

Daily generation of fugitive dust will be greater under the Alternative 1 (ACB) scenario than Alternative 2 (Concrete Channel) scenario, because the ACB design will result in more earth-moving activities during floodplain construction. Daily fugitive dust generation from the other activities is comparable between the two design scenarios, due to similarity of daily activities and intensity of the activities. Therefore, the Alternative 1 (ACB) scenario represents the “worst-case” in terms of daily fugitive dust generation. Under the Alternative 1 (ACB) scenario, daily peak fugitive dust generation will occur during floodplain construction (Activity 4) where earth excavation and stockpiling (2,100 cy overall), and borrow material import (1,356 cy overall) for berms construction are occurring *simultaneously*.

With respect to fugitive dust impact analysis for the project, fugitive dust generation sources consist of: i) earth excavation and stockpiling with a scraper; ii) grading of the floodplain surfaces with a motor grader; iii) truck unloading of import earth berm material; and iv) truck travel on an existing aggregate road on the project site.

⁴ On-Site emissions from equipment/vehicles operated on-site.

⁵ Off-Site emissions from equipment/vehicles operated on public roads.

**Table A-3
Alternative 1 (ACB)
Total Daily Maximum On-Site Fugitive Dust Emissions**

Fugitive Dust Source	PM-10	PM-2.5
Total Emissions:	9.98	6.44
SCAQMD Thresholds:	150	55
Exceed Thresholds	No	No

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

**Table A-4
Alternative 2 (Concrete)
Total Daily Maximum On-Site Fugitive Dust Emissions**

Fugitive Dust Source	PM-10	PM-2.5
Total Emissions:	6.66	4.47
SCAQMD Thresholds:	150	55
Exceed Thresholds	No	No

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

As shown in Tables A-3 and A-4, the project's maximum daily fugitive dust emissions were evaluated for both alternatives. As shown, both project alternatives 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. The project region (Los Angeles-Riverside Area Air Basin) is nonattainment for Ozone, PM-10 and 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 design Alternative 1 (ACB) and Alternative 2 (concrete) 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-2.5 (lbs/d)	PM-10 (lbs/d)
	VOC	NO _x		
Alternative 1				
Total Mobile Emissions	6.84	69.31	6.44	9.98
SCAQMD Thresholds	75	100	55	150
Alternative 2				
Total Mobile Emissions	5.47	56.66	4.47	6.66
SCAQMD Thresholds	75	100	55	150

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

Since the project’s emissions do not exceed the SCAQMD’s regional thresholds for NO_x, VOC, particulate matter (PM-2.5), and particulate matter (PM-10), the project’s total mobile emissions do not contribute to the cumulative exceedance of a pollutant for which the Air Basin is in nonattainment.

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.

The construction equipment would emit DPM, which is a carcinogen. However, the DPM emissions are short-term in nature. Determination of risk from DPM is considered over a 70-year exposure period because carcinogenic risk is directly related to sustained exposure. In contrast, construction activities for the project are only expected to last approximately

two months. Thus, the duration of construction activities would represent only a small fraction of the 70-year exposure period used as the basis for assessing the significance of the carcinogen risk exposure and, therefore, would not represent a source of sustained DPM emissions. Therefore, considering the short time frame, exposure to DMP is anticipated to be less than significant. The project does not have operational emissions. Sensitive receptors would not be exposed to toxic sources of air pollution.

Localized Air Quality Impact Analysis:

Air pollutant concentrations at a receptor in the vicinity of a source of air pollution could cause a local air quality impact, dependent on many factors including the location of the receptor relative to the source, prevailing wind patterns, the rate at which pollutants are emitted, and the size of the area over which the pollutants are emitted. Emitted pollutants are carried by the wind and the further they travel from the source the more dispersed they become resulting in lower concentrations as the distance from the emission source increases. Pollutants emitted over a small area result in higher pollutant concentrations compared to a source that emits the same amount of pollutants over a wide area.

The nearest receptors (three residences) are located adjacent to the SE Drainage project site at an average distance of 150 feet (50 meters), with the closest residence located approximately 60 feet (18 meters) south of the project site. Notwithstanding the small size and temporary nature of the project, at this close distance air pollutants emitted during project construction could reach concentration levels that might constitute a health concern to these sensitive receptors. In order to determine the level of significance of pollutant (PM 2.5, PM 10, DPM, and TACs) concentrations near sensitive receptors, Kunzman Associates Inc., analyzed the construction activities closest to the nearest sensitive receptor, more specifically, the residence located approximately 60 feet from the proposed activity.

In 2006, the SCAQMD 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 NO_x, 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, and the modeled LTS's assume a single 8-hour work shift during the daytime. Although the entire project construction area will encompass approximately 2.5 acres, 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.

As a reference to this analysis, Table A-6 shows the LST's specific for the project's construction emissions at the closest modeled receptor distance of 25 meters, based on the 2006-2008 mass rate look-up tables. While activities 2, 3 and 4 (overlapping activities during Activity 4) represent the worst case in terms of emissions, as was discussed in the preceding section (3b), Activity 6, for Alternative 1, and Activity 3, for Alternative 2 represent the worst case in terms of the potential to have the greatest concentration of equipment operating in close proximity to sensitive receptors. As shown in the Table A-6, the estimated project emissions for CO, NO_x, PM10 and PM 2.5 would not exceed their corresponding LST's.

**Table A-6
Local Construction Emissions at Nearest Receptor for Alternative 1 and 2**

Phase	On-Site Pollutant Emissions (pounds/day)			
	NO _x	CO	PM10	PM2.5
Alternative 1-Activity 6	34.99	24.53	4.53	3.13
SCAQMD Threshold for 25 meters (82 feet) or less	170	1,007	6	5
Exceeds Threshold?	No	No	No	No
Phase	On-Site Pollutant Emissions (pounds/day)			
	NO _x	CO	PM10	PM2.5
Alternative 2-Activity 3	30.23	18.2	4.13	2.86
SCAQMD Threshold for 25 meters (82 feet) or less	170	1,007	6	5
Exceeds Threshold?	No	No	No	No

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

Air Quality Impacts, as shown in Table A-6, during the worst case scenario would not exceed thresholds of significance for NO_x, CO, PM 2.5 or PM 10. Impacts would be less than significant.

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 Sherborn Street, Downs Way, Magnolia Avenue, and I-15, all of which are paved urban roadways (Secondary, Major, and freeway) with traffic light control at the used intersections (i.e., Magnolia Avenue/Downs Way; Magnolia Avenue/Sherborn Street; and Magnolia/I-15). As analyzed in Section 16 (Transportation and Traffic) of this EA, the project will not cause an unacceptable LOS at any of these intersections. Lastly, the material hauling truck traffic of the project will occur in an industrial/commercial region of the City of Corona with no sensitive receptors in the vicinity of the used intersections. Therefore, the project will not cause a significant air quality impact from "CO hotspots."

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 is a small and temporary drainage improvement construction operation, it will not generate TAC 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. The current LFG flare station at the closed Corona Landfill is fully permitted and complies with SCAQMD Rule 1150.1. There are no issues or concerns regarding TAC emissions from either the landfill or the proposed project. Therefore, no air quality impacts associated with TAC will result from the project.

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 or air contaminants or other material which may 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 causes, 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 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 of short-term in nature and the odor emissions are expected to cease upon the drying or hardening of the odor producing materials. 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. Due to the short-term nature and limited amounts of odor producing materials being utilized, no significant impact related to odors would occur during construction of the proposed project. Furthermore, in the event that landfill excavation is necessary during subgrade preparation, objectionable odors are not expected to be significant due to the age of the landfill and limited extent of excavation and exposure.

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 Game 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 Game or U.S. Fish and Wildlife Services?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A Jurisdictional Delineation (JD) and Biological Resources Assessment (BRA) were completed by Gonzales Environmental Consulting, LLC (GEC), final reports dated April 24, 2014. Breeding season focused surveys for the Least Bell's Vireo (LBV) and Southwestern Willow Flycatcher (SWF) were conducted by AMEC during the nesting season of 2014. The Environmental Program Division (EPD) of the Riverside County Planning Department prepared a Determination of Biologically Equivalent or Superior Preservation (DBESP), dated October 1, 2014, as well as a nesting bird season survey, dated May 9th, 2014.

The following discussions are based on these biological studies, all of which are appended to the EA (electronic copy only) and, in addition, hard copies of these reports are available at the RCDWR Headquarters in Moreno Valley.

- 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 Game or U.S. Fish and Wildlife Services?**

Federally and State Listed Endangered and Threatened Species:

Least Bell's Vireo, Southwestern Willow Flycatcher, Western Yellow-Billed Cuckoo

During the BRA study conducted by GEC in August 2013, potential habitat for the federally listed riparian bird species of LBV, SWF, and Western Yellow-Billed Cuckoo (WYBC) was identified within the project site. In the nesting season of 2014, from April thru August, AMEC found that no suitable breeding habitat existed for the WYBC. Focused protocol surveys for LBV and SWF were conducted and found the presence of occupied habitat by LBV but not the SWF.

The AMEC survey report, dated August 12, 2014, identified eight detections of LBV; seven of those detections (90%) were in an area designated as "streambed preservation" (**Figure 3, Site Plan**) and in an area immediately north of an off-site pond. The fact that most detections were adjacent to this pond, and that LBV's were missed on two site visits, suggests that the presumed LBV pair/territory was centered somewhere along the pond, with the on-site drainage being a 'territory edge' used for foraging. The foraging territory (where 90% of the detections were observed) would not be disturbed from project construction activities under design Alternative 1 (ACB); however, under Alternative 2, all existing vegetation and habitat within the drainage would be removed⁶. The one detection inside the project area was of a calling (not singing) LBV at the east end of the study area in July. Since there were no other previous detections, it is probable that this bird represented a dispersing young bird of the year or a post-breeding adult. The majority of LBV detections

⁶ In February 2016, a contractor for a residential development adjacent to the project site removed vegetation and placed material (rocks and fill) within the area designated for preservation under Alternative No.1. This activity was performed without any authorization or approval from the RCDWR. Approximately 0.3 acre of the drainage was impacted- 0.2 acre on the adjoining property and 0.1 acre on County landfill property (see Figure 3, Site Plan for location). The Resource Agencies are addressing the matter with the Developer. While these unauthorized impacts did not affect any proposed mitigation or design considerations for the Project, they did result in revisions to the text and Figure 3 in this EA, accounting for the impacts by identifying the locations and adjusting acreages accordingly.

were in an area immediately north of an offsite pond. LBV are present within proximity to the project site but no direct impacts will occur to occupied LBV habitat. Indirect impacts to LBV would be reduced to a level of less than significant with the implementation of mitigation measures BIO-1, BIO-2, BIO-3, BIO-4 and BIO-5.

Federal Species of Concern:

Burrowing Owls (BuOwl):

The project site falls within the habitat range of the BuOwl, a federal Species of Concern under the Endangered Species Act and a Planning Species protected under the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). According to the GEC study, suitable BuOwl habitat exists within and beyond the project's construction activity footprint. The EPD nesting season survey on May 9, 2014 did not identify any occupied BUOW habitat in/or around the project site.

Migratory Birds:

According to the GEC and AMEC studies, the project site has the potential to support nesting songbirds, raptors, and riparian bird habitat. Nesting activity typically occurs from February 15th to August 31st. Disturbing or destroying active nests is a violation of the Migratory Bird Treaty Act (MBTA). In addition, nests and eggs are protected under Fish and Game Code Section 3503. The removal of vegetation during the breeding season is considered a potentially significant impact.

The project would extend the floodplain on the west end portion of the channel and replace the existing grouted rip rap with ACB under Alternative 1. Under Alternative 2, the entire channel's stream bed and banks would be replaced from the existing grouted rip rap to concrete. Under Alternative 1, an area has been designated as "streambed preserved" where no disturbance would occur, this is the area where 90% of the LBV detections occurred as explained in the preceding paragraph. No burrowing owls would be impacted from either Alternative 1 or Alternative 2, because burrowing owls are not known to inhabit the site and clearance surveys would be carried out prior to any ground disturbance/construction activities. With implementation of the following mitigation measures, impacts to burrowing owls and birds covered under the MBTA would be reduced to a level less than significant.

MITIGATION MEASURES:

- BIO-1 A qualified biologist shall be retained to monitor construction activities and to make recommendations on how to minimize biological impacts prior to and during construction or disturbance activities. (ALT1/ALT2)
- BIO-2 In order to avoid impacts to Least Bell's Vireo, construction activity or any activities that could potentially impact LBV should not be carried out during the LBV nesting season (~~April~~ March 15 through July 31). If construction or other activities must occur during the LBV nesting season, preconstruction surveys shall be carried out. ~~If the site is determined to be presently occupied by LBV,~~

~~appropriate avoidance measures shall be adopted to avoid any potential impacts. (ALT1/ALT2)~~

- BIO-3 If LBV are detected within or in close proximity to the worksite, all work that could potentially impact the LBV will be stopped until the biologist determines that the LBV has left the site. ~~If needed, relocation of LBV shall only occur after consultation with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW), following all USFWS and CDFW relocation protocols. (ALT1/ALT2)~~
- BIO-4 Within 30 days prior to construction or disturbance activities, a burrowing owl clearance survey shall be conducted within suitable areas in the construction areas, including a 150 meter buffer area. (ALT1/ALT2)
- BIO-5 If any burrowing owls or occupied burrows are found during the burrowing owl preconstruction survey, no disturbance will occur within 50 meters of occupied burrows during the non-breeding season of September 1 through January 31 or within 75 meters during the breeding season of February 1 through August 31. If construction or ground disturbance must occur within the specified no disturbance areas a qualified biologist may relocate affected burrowing owls only during the non-breeding season and after approval from the California Department of Fish and Wildlife. (ALT1/ALT2)
- BIO-6 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. (ALT1/ALT2)
- BIO-7 All LBV and riverine/riparian habitat that will remain undisturbed during and after implementation of the proposed project shall be enhanced by treating and monitoring for target non-native invasive species. A Habitat Mitigation and Monitoring Plan shall be prepared during the permitting process. (ALT1)
- BIO-8 To offset the permanent loss of potential LBV habitat, approximately 1.64 acres of riverine/riparian habitat will be created at the Pedley Landfill restoration site. Success of the restoration site will be ensured through an Invasive Species Management and Monitoring Plan that shall be produced during the resource agency permitting process. (ALT1/ALT2)
- BIO-9 For Alternative 2, if selected, in addition to the off-site creation of the 1.64 acres of riverine/riparian habitat created at the Pedley Landfill restoration site, RCDWR shall contribute to an approved in-lieu fee payment or mitigation banking program, at a minimum of a 1:1 ratio, with the exact ratio negotiated with the resource agencies during the 1602 Streambed Alteration Agreement and Clean Water Act sections 401/404 permitting process. (ALT2)

Compliance with mitigation measures will ensure that sensitive species such as the LBV, burrowing owl, in addition to other nesting birds protected by the MBTA, will not be harmed or otherwise harassed by construction activities because if found on-site, a qualified biologist will assess the situation and, if necessary, consult with USFWS and CDFW staff on procedures for isolating the individuals from the activities until they vacate the site, or if necessary, relocate the individuals in accordance with established USFWS and CDFW protocol (mitigation measures BIO-1 through BIO-6). Implementation of mitigation measures BIO-7, BIO-8, and BIO-9 will ensure that potential LBV habitat is improved or replaced by performing enhancement activities within remaining on-site riparian areas (BIO-7), creating of riverine/riparian habitat at the Pedley Restoration Site, and/or by purchasing in-lieu fee or mitigation bank credits. Therefore, with implementation of these mitigation measures, any impacts to sensitive species or habitats would be less than significant.

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 Game or U.S. Fish and Wildlife Services?

The BRA prepared by GEC analyzed the potential for riparian habitat and other sensitive natural communities identified by the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service. GEC did find riparian habitat present on the project site. Vegetation within the project channel consists of four (4) riparian communities, namely, the Salix Alliance composing of arroyo willow (*Salix lasiolepis*) and Goodding's willow (*Salix gooddingii*); Mulefat Alliance dominated by mulefat (*Baccharis salicifolia*); *Washingtonia robusta* (California fan palm) Alliance that occupies approximately a third of the SE Drainage Channel; and Tamarisk Alliance dominated by *Tamarix ramosissima* and located primarily in the eastern portion of the SE Drainage Channel. The following discussion identifies applicable local and regional plans/policies addressing riparian habitat and other sensitive natural communities.

Western Riverside County Multiple Species Habitat Conservation Plan Riverine/Riparian Habitat:

Section 6.1.2 of the MSHCP defines riverine/riparian Areas as "lands which contain habitat dominated by trees, shrubs, persistent emergents or emergent mosses, which occur close to or which depend upon soil moisture from a nearby fresh water source, or areas with fresh water flow during all or a portion of the year." This definition includes unvegetated ephemeral streams which are common in the generally arid region of Southern California if it can be demonstrated through observation that annual flows occur within the feature. This definition also considers the limits of moisture dependent or riparian vegetation and closely coincides with the limits of CDFW jurisdiction. According to the BRA and Jurisdictional Delineation prepared by GEC, the entire channel contains approximately 2.56 acres of riverine/riparian habitat, as defined by the MSHCP. The MSHCP allows for impacts to riverine/riparian habitat and resources defined under section 6.1.2 for the Plan if the impacts are deemed to be unavoidable via a DBESP. Impacts to riverine/riparian habitat vary with the project design scenarios. As shown in Table B-1, Alternative 1 (ACB) will

impact approximately 0.82 acres of riverine/riparian habitat; whereas Alternative 2, the concrete channel scenario, would impact the entire 2.56-acre drainage channel. While 100% avoidance of impacts is not feasible for either Alternative 1 or Alternative 2, the ACB design preserves approximately 1.74 acres (68%) of MSHCP riverine/riparian habitat in the project site (see footnote #6). Project impacts to MSHCP riverine/riparian resources from either project alternative are less than significant with implementation of mitigation measures BIO-1, BIO-8, BIO-9, and BIO-10.

Sensitive Natural Communities

The CDFW classifies sensitive natural communities, those that exhibit a certain degree of imperilment (as measured by rarity, trends or threats) using a series of unique codes used to rank all vegetation communities. These ranks are the Global (G) and State (S) ranks, ranging from G1 - G4, and S1- S4. Alliances with G1-G3 and S1-S3 designation, and their corresponding associations within them, are considered to be highly imperiled and thus sensitive natural communities. The Alliances identified within the project area are not classified as sensitive natural communities by CDFW; therefore, no impacts to sensitive natural communities, other than the riparian habitat mentioned in the preceding paragraph, would occur as a result of the project. To mitigate impacts to jurisdictional waters/wetlands containing riparian habitat under the control of CDFW, the RCDWR will enter into a 1602 Streambed Alternation Agreement with CDFW, as identified in Mitigation Measure BIO-12.

Other Local and Regional Plans

The project is located within the City of Corona (City). The City and County are Permittees to the MSHCP, and as such, County projects, as well as those within the City, must demonstrate consistency with the MSHCP. By the completion of MSHCP required biological studies and modification of the project design to reduce impacts to resources covered under the MSHCP along with mitigation measures BIO-2 through BIO-11, impacts associated with the MSHCP would be reduced to level less than significant.

The proposed project under design Alternative 1 would expand the floodplain area at the southwestern end of the project. Existing riparian vegetation within the channel adjacent to the floodplain areas will not be impacted. Furthermore, Alternative 1 would preserve approximately 1.74 acres of MSHCP riparian habitat (see footnote #6) that would, otherwise, under Alternative 2, be destroyed. As such, Alternative 2, if selected, shall require the preparation and submittal of a new DBESP to USFWS and CDFW. Impacts to riparian habitat will be mitigated to less than significant following the recommended mitigation measures. No impacts to sensitive natural communities, as defined in the California Natural Diversity Data Base will occur from implementation of either project alternatives.

MITIGATION MEASURES:

- BIO-10 The Riverside County Department of Waste Resources shall comply with the terms and mitigation measures described in the approved DBESP written by the Riverside County Planning Department Environmental Programs Division on October 1, 2014 and approved by the USFWS and the CDFW. (ALT 1)

BIO-11 Prior to initiation of construction activities within MSHCP riverine/riparian areas, the Riverside County Department of Waste Resources shall submit a new DBESP to USFWS and the CDFW for review and approval. Construction activities shall not occur within MSHCP riverine/riparian areas until the DBESP is approved. (ALT 2)

Compliance with mitigation measures will ensure that riparian habitat found on-site will not be significantly impacted by the project. The biological monitoring, species surveys, in addition to both the enhancement and replacement of riparian habitat, as discussed in mitigation measures BIO-1 through BIO-9, will ensure that impacts to riparian habitats are less than significant. Furthermore, adherence to the measures identified in the approved DBESP under project alternative 1, or the submittal and adherence to a new DBESP for project alternative 2, required under mitigation measures BIO-10 and BIO-11, will ensure impacts to riparian habitat remain less than significant.

FINDING: *Less Than Significant Impact After Mitigation*

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 site is a partly natural and partly created drainage channel, which merges with an unnamed blueline stream from the south, according to the historical United States Geological Survey (USGS) maps for the area. The channel receives primarily urban landscape runoff throughout the year and conveys storm runoff during the winter season. Vegetation within the project channel consists of four communities, namely, the riparian Salix Alliance consisting of arroyo willow (*Salix lasiolepis*) and Goodding's willow (*Salix gooddingii*); riparian Mulefat Alliance dominated by mulefat (*Baccharis salicifolia*); *Washingtonia robusta* (California fan palm) Alliance that occupies approximately a third of SE Drainage Channel; and Tamarisk Alliance dominated by *Tamarix ramosissima* and located primarily in the eastern portion of the SE Drainage Channel.

The JD study by GEC found that the site contains features that lend themselves to California Department of Fish & Wildlife (CDFW) and U.S. Army Corps of Engineers (USACE) jurisdiction:

- a) 1.11 acres of Waters of the U.S. (0.39 acre of waters and 0.72 acre of jurisdictional wetlands) under the jurisdiction of the USACE and Regional Water Quality Control Board, Santa Ana Region (SARWQCB);
- b) 2.56 acres of Waters of the State (1.99 acres of riparian scrub wetlands and 0.57 acre of jurisdictional streambed) under the jurisdiction of the CDFW; and,
- c) 2.56 acres of MSHCP Section 6.1.2 Riverine/Riparian habitat occur on the project site.

The JD's findings are summarized in Table B-1 below.

**Table B-1
Jurisdictional Delineation Results and Impacts
Corona SE Channel Project**

Project Design	Short Description	Permanent Impact	
		(Acre)	(Linear Feet)
Alternative 1 (ACB)	Federal Waters	0.05	335
	Federal Wetlands	0.28	1,898
Alternative 2 (Concrete Channel)	Federal Waters	0.39	2,108
	Federal Wetlands	0.72	2,108
Alternative 1 (ACB)	CDFW Streambed	0.10	1,898
	CDFW Wetlands	0.72	1,898
Alternative 2 (Concrete Channel)	CDFW Streambed	0.57	2,108
	CDFW Wetlands	1.99	1,218
Alternative 1 (ACB)	RWQCB Waters	0.05	335
	RWQCB Wetlands	0.28	1,898
Alternative 2 (Concrete Channel)	RWQCB Waters	0.39	2,108
	RWQCB Wetlands	0.72	2,108
Alternative 1 (ACB)	MSHCP 6.1.2	0.82	1,898
Alternative 2 (Concrete Channel)	MSHCP 6.1.2	2.56	2,108

Source: Jurisdictional Delineation Report, Gonzalez Environmental

Jurisdictional Waters, Wetlands, and Streambed:

As shown in Table B-1, the project site contains jurisdictional waters, wetlands, and riparian habitat. Maximum permanent impacts would occur under Alternative 2 scenario, including: 0.39 acre of federal waters and 0.72 acre of federal wetlands; 0.57 acre of CDFW streambed and 1.99 acres of CDFW wetlands; and 2.56 acres of MSHCP riverine/riparian habitat. Impacts under design Alternative 1 would be less than impacts under the design Alternative 2 scenario. In either case, impacts are considered significant and mitigation measures will be required to reduce impacts to less-than-significant levels.

Project construction could cause short term impacts to surface water quality, which, in turn, would affect waters, wetlands, and streambed resources downstream from the project site. Mitigation measures will be required as part of this EA to reduce these short term impacts to less-than-significant levels. In addition, compliance with the NPDES, Construction Guidelines provided in Section 7.5.3 of the MSHCP, and the BMPs in Appendix C of the MSHCP shall ensure that no impacts to MSHCP covered riverine/riparian species occur off-site and downstream of the project site. Further discussion on BMPs can be found in the analysis for water quality, under question 9(a).

Vernal pools are seasonal depressional wetlands, common in the West Coast, and underlain by hard clay or bedrock that allow water to be retained in the pool. They provide habitat for numerous rare plants and animals including fairy shrimp. They collect most of their water during the rainy season in winter, and may be completely dry for most of the summer and fall. The project site does not contain any vernal pool and fairy shrimp habitat, as physical evidence characteristic of vernal pools and seasonal ponds, such as water stained, closed-contour depressions, cracked clays, aquatic invertebrate carapaces, or vernal pool indicator plant species, were not observed. The lack of evidence of these indicators suggest that

water observed onsite is not characteristic of vernal pools. Therefore, the project will not result in impacts to vernal pools or Fairy Shrimp habitat.

MITIGATION MEASURES:

- BIO-12 Prior to project construction, a Streambed Alteration Agreement (SAA) shall be reached between the California Department of Fish and Wildlife (CDFW) and the Riverside County Department of Waste Resources (RCDWR) regarding mitigation for direct loss of 0.10 or 0.57 acre of jurisdictional streambed and 0.72 acre or 1.99 acres of CDFW wetlands from the project under the ACB or Concrete Channel scenario, respectively. The SAA will require a mitigation program that may include on-site enhancement, and/or off-site in-kind replacement acreage, in-lieu fee payment or mitigation banking, based on an appropriate ratio negotiated with the CDFW. (ALT1/ALT2)
- BIO-13 Prior to project construction, a Clean Water Act Section 404 Permit shall be obtained from the US Army Corps of Engineers (USACE) and the RCDWR regarding mitigation for direct loss of 0.05 or 0.39 acre of Waters of the US and 0.28 or 0.72 acre of jurisdictional wetlands from the project under the ACB or Concrete Channel scenario, respectively. The 404 Permit will require a mitigation program that may include on-site enhancement, and/or off-site in-kind replacement acreage, in-lieu fee payment or mitigation banking, based on an appropriate ratio negotiated with the USACE. (ALT1/ALT2)
- BIO-14 Prior to project construction, a Clean Water Act Section 401 Certification shall be obtained from the Santa Ana Regional Water Quality Control Board (SARWQCB) and the RCDWR regarding mitigation for direct loss of 0.05 or 0.39 acre of Waters of the US and 0.28 or 0.72 acre of jurisdictional wetlands from the project under the ACB or Concrete Channel scenario, respectively. The 401 Certification may require a mitigation program that may include on-site enhancement, and/or off-site in-kind replacement acreage, in-lieu fee payment or mitigation banking, based on an appropriate ratio negotiated with the SARWQCB. (ALT1/ALT2)

Compliance with mitigation measures will ensure that impacts to federal and state jurisdictional waters, under the control of the US Army Corps of Engineers, Regional Water Quality Control Board, and the CDFW, are less than significant. Mitigation measures BIO-12 through BIO-14 require the RCDWR to enter into agreements or obtain permits that address and mitigate impacts to the jurisdictional waters. Therefore, with implementation of these mitigation measures, in addition to measures BIO-1 through BIO-9 addressing biological monitoring, species surveys, and replacement/enhancement of jurisdictional riparian areas, impacts to the both federal and state jurisdictional waters will be less than significant.

FINDING: *Less Than Significant Impact After Mitigation*

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 Constrained Linkage 4 is through Cells 1923, 1924, and 1926, all of which are located east and north of the project site and directly associated with the Temescal Wash, which is the region's main wildlife dispersal and migration corridor.

The project's SE Channel is located in an urban area surrounded by commercial and industrial developments on the north, east, and south, and I-15 to the west. In other words, 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. raccoon, skunk, coyote, bird) are likely to move through the landfill site via the SE Channel. 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 would consist of two aspects, 1) the widening of the flood plain on the southwestern end of the SE Channel and 2) either ACB installation under Alternative 1 or the use of concrete as an erosion control revetment system under Alternative 2. The ACB installation work as described in Section 2.4.1.1 Conceptual Construction Plan, would only occur on the northern banks of the project, and would not impact the streambed by obstructing or blocking the movement of any wildlife species within the project boundary that may be found there. The proposed project is not expected to substantially affect the movement of wildlife in the Corona region or affect the use of Proposed Constrained Linkage 4. 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 project is located within the City of Corona (City). The City and County are Permittees to the MSHCP, and as such, County projects, as well as those within the City, must demonstrate consistency with the MSHCP. As discussed above, the Project is consistent with the MSHCP, and has provided adequate mitigation ensuring protection of biological resources.

Furthermore, the project would not conflict with local policies or ordinances related to tree preservation; 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?

On October 7th, 2003 the County of Riverside adopted an area wide MSHCP that serves as a Habitat Conservation Plan pursuant to section 10(a)(1)(B) of the Federal Endangered Species Act of 1973 that also works as a Natural Communities Conservation Plan under the NCCP Act of 1991. The following are findings from the BRA prepared by GEC and the DBESP, prepared by EPD.

MSHCP Consistency:

All projects within the MSHCP Plan area must prove consistency with the Plan. Proving consistency with the plan requires identifying the biological resources present on the project site and determining if the project will impact any resources that are protected by the MSHCP. In addition to meeting MSHCP species objectives the project must prove compliance with the conservation objectives within the Plan's Criteria areas. The proposed project carried out all necessary biological studies and analysis as required by the MSHCP.

(1) MSHCP Conservation Objectives:

A portion of project site falls within MSHCP Criteria Cell 1923 which is part of the Temescal Canyon Area Plan. Conservation within cell 1923 has three objectives. Conservation within cell 1923 shall contribute to assembly of Proposed Constrained Linkage 4; conservation will focus on water and riparian habitat associated with Temescal Wash and conservation within the cell will be connected to water proposed for conservation to the north in cell 1826, and to riparian habitat proposed for conservation in cell 1924 to the east. Conservation within cell 1923 will range between 10 and 20 percent focusing on the northern and eastern portion of the cell. The subject parcel where the proposed project is located is only slightly within the western portion of cell 1923. Proposed Constrained Linkage 4 is located in the opposite portion of the criteria cell within the northeast corner, therefore conservation objectives will not be affected by the proposed project.

During a pre-DBESP meeting that took place on April 9, 2014 between the RCDWR, the Western Riverside Regional Conservation Authority, Regional Water Quality Control Board (RWQCB), USACE, CDFW and the U.S. Fish and Wildlife Service, it was determined that this project would not have to go through the MSHCP Joint Project Review process because only a small portion of the site (less than 0.5 acres) is located within the cell and conservation was not described within the project area.

(2) Section 6.1.2 of MSHCP

Section 6.1.2 of the MSHCP specifies the requirements for riverine/riparian habitat, vernal pools, fairy shrimp and associated riparian species.

Riverine/Riparian Habitat and Species:

According to the GEC JD, the entire channel contains approximately 2.56 acres of riverine/riparian habitat, as defined in Section 6.1.2, Protection of Species Associated with riverine/riparian Areas and Vernal Pools, of the MSHCP. Impacts to the riverine/riparian habitat varies with the project design scenario. As indicated in Table B-1, the ACB scenario will impact approximately 0.82 acre of riverine/riparian habitat whereas the Concrete Channel scenario the entire 2.56-acre drainage channel.

The basic functions of the riverine habitat onsite are for conveyance with some limited flood attenuation, and nutrient and sediment transport. Project impacts to these riverine functions are considered temporary, because the proposed project will not alter the basic drainage patterns and capacity, it would eventually improve the flood attenuation capacity of the channel, and not impede its nutrient and sediment transport ability. However, the loss of some or all of the existing vegetation within the channel would mean a permanent impact to Riparian/wetland habitat.

Vernal Pools and Fairy Shrimp Habitat

The project site does not support vernal pools. In addition, no depressional areas conducive to the development of vernal pools or fairy shrimp habitat occur on site.

MSHCP Narrow Endemic Plant Species:

The project site is located within a MSHCP Narrow Endemic Plant Species Survey Area. The RCIP Conservation Summary Report Generator identified three NEPSSA species San Diego Ambrosia, Brands Phacelia and San Miguel Savory. The MSHCP requires that focused surveys be carried out if suitable habitat exists within appropriate areas of the project site. Habitat assessments conducted by GEC in August of 2013 found no individuals or suitable habitat for the three NEPSSA species. No further surveys are required for any NEPSSA species.

MSHCP Criteria Area Species:

The Project site is not located within a Criteria Area Plant Species Area, according to the RCIP Conservation Summary Report Generator.

MSHCP BuOwl Survey Area:

A small portion of the project site is located within a designated MSHCP BuOwl survey area. GEC did find suitable habitat present on the site; however, no signs of current or past BuOwl activity were observed. In addition to the GEC survey, EPD conducted MBTA surveys in May of 2014 and found no evidence of past or current BuOwl occupation within or adjacent to

the project site. As described in the Federal Species of Concern section, mitigation measures will be exercised to avoid potential BuOwl impacts.

(3) Determination of Biologically Equivalent or Superior Preservation (DBESP):

The MSHCP allows for impacts to riverine/riparian habitat and associated resources as defined in Section 6.1.2 of the Plan if the impacts are deemed unavoidable via a DBESP. Implementation of design Alternative 1 will result in the permanent impact to 0.82 acre of riverine/riparian resources. Due to the potential risk for human health and safety as well as adverse effects on existing riverine/riparian resources both on site and downstream, it was determined that the proposed impacts are unavoidable; therefore, the project had to prove compliance with the MSHCP by proposing biologically equivalent or superior preservation in a DBESP. The DBESP was prepared by EPD in October 2014 and subsequently reviewed by the USFWS and the CDFW during a 60 day review period that ended on December 7, 2014. Prior to completion of the DBESP, the RCDWR met with the RCA, USFWS, CDFW, USACE and the SARWQCB to present the proposed project, discuss avoidance alternatives and receive recommendations for mitigation, which were later incorporated into the DBESP, as well as the site design.

The proposed project demonstrates avoidance as required by the MSHCP; however, unavoidable impacts to 0.82 acre (ALT 1) or 2.56 acres (ALT 2) of riverine/riparian habitat will occur. With USFWS and CDFW acceptance of the DBESP, it has been determined that the measures proposed by RCDWR shall provide biologically equivalent or superior preservation to offset any impacts for the project design under Alternative 1. As required under mitigation measure BIO-11, Alternative 2, if selected, shall require the preparation and submittal of a new DBESP to USFWS and CDFW for approval, demonstrating compliance with the MSHCP for Alternative 2.

(4) SECTION 6.1.4 - Urban/Wildlands Interface:

According to the MSHCP, the Urban/Wildlands Interface Guidelines are intended to address indirect effects (edge effects) associated with locating development in proximity to the MSHCP Conservation Area. A small portion of the proposed project site falls within MSHCP Criteria Cell 1923. The Urban/Wildlands Interface Guidelines, as discussed below, will be incorporated into the project to ensure that project-related edge effects involving drainage, toxics, lighting, noise, invasive plant species, barriers, and grading/land development are avoided, minimized, and less than significant under either design alternative.

Drainage:

The proposed project will not result in any changes in existing conditions of storm water runoff. Best Management Practices (BMPs), as described in more detail in the water quality analysis under question 9(a), shall be employed throughout the project area during the duration of the project. A biological monitor shall be present throughout the earthwork and revetment system installation (ALT 1) or channelization (ALT 2).

Toxics:

According to the MSHCP, measures shall be incorporated to ensure that application of chemicals does not result in discharge to the MSHCP Conservation Area. During construction, some potentially hazardous materials, typical of a construction project (fuels, oils, etc.) may be present on the site. An Emergency Response Plan, as discussed in Section 8 under Hazards and Hazardous Materials, question 8(a), shall be compiled for the project that provides for containment actions that must be undertaken in the event of a spill or other accident.

Lighting:

The project does not propose lighting either during construction or operation.

Noise:

As addressed in Section 12 Noise, construction-related noise will be mitigated consistent with the County's Noise Ordinances by limiting construction activities to daytime hours and requiring construction equipment to be tuned and equipped with mufflers.

Invasive Plant Species:

The project does not propose any onsite landscaping or re-vegetation; however, as stated in Mitigation Measure BIO-7, remaining riverine/riparian habitat shall be enhanced by treating and monitoring for target non-native invasive species.

Barriers:

Barriers are not required for the proposed drainage improvements.

Grading/Land Development:

Grading will only occur in designated areas necessary to carry out the project. Clean fill material, rip-rap, ACB (ALT 1), or concrete (ALT 2), may be used within the repair, stabilization, and flood plain areas.

Fuels Management:

The project does not require any fuels management areas.

(5) MSHCP Consistency Conclusion:

The project site is within the Temescal Canyon Area Plan of the MSHCP; however, the majority of the project site falls outside of a criteria cell. The MSHCP does not describe conservation in the portion of the criteria cell in which the project site is located. Implementation of the proposed project will not impact MSHCP conservation objectives. No suitable habitat was found for any NEPSSA species and potential impacts to BUOW will be avoided by implementation of mitigation measures stated below.

In addition, the project will not adversely affect MSHCP riverine resources, since existing drainage patterns will not be altered by the project, regardless of which alternative is implemented, and as discussed above in (4), impacts relating to edge effects are less than significant. For these reasons, the RCA, along with staff from the USFWS and CDFW, determined in a pre-application committee hearing in April 2014 that the project would not be subject to the Joint Project Review. Impacts to riparian/wetland habitat will be mitigated at an off-site location within a MSHCP conservation assembly area, thus contributing to the conservation objectives of the MSHCP.

Cumulative Biological Impacts:

To determine if the identified project direct impacts are significant on a cumulative basis, it needs to be considered in the context of existing and future surrounding developments within the area. Most land development in the surrounding area is urban. Immediately adjacent to the project site is a sand and gravel and concrete batch operation, which contains the only remaining non-residential source of run-off. Cumulative impacts could result from the marginalization of quality of the streambed habitat in close proximity to the project site by introducing urban pollutants into existing riparian habitat off of the project site.

However, the cumulative effects of the proposed project on streambed resources are considered beneficial for the following reasons:

1. The proposed project will improve an existing urban drainage channel for purposes of erosion control as a post closure maintenance responsibility for the inactive Corona Landfill. Therefore, the proposed project is part of the requirement by the Santa Ana Regional Water Quality Control Board for protection of surface water quality and its habitat values in the Santa Ana Watershed from sediments and potential release of landfill contents caused by erosion of the SE Channel by urban stormwater runoff.
2. If the project were not constructed, impacts to the existing habitat and streambed, as well as downstream habitats, would still occur, as existing eroded conditions of the landfill and surrounding habitat continue to propagate according to the natural evolution mechanism of alluvial streams (i.e., Lane's relationship, $QS = Qsds$). In other words, without the proposed erosion control project, greater than 2-year stormwater events will erode the streambed, on-site habitat, and landfill slope, releasing both sediment and waste contaminants. Consequently, both on-site and downstream habitat and streambed resources will be adversely impacted. The proposed project will actually mitigate these off-site impacts.

Without the project, on-site riparian/wetland and LBV habitat will be subject to periodic erosion or destruction due to recurrent high volume storm flows caused by existing and future development.

Therefore, the proposed impacts associated with the MSHCP are considered less than significant with the implementation of mitigation measures BIO-1 through BIO-11, which address biological monitoring, required MSHCP species surveys, replacement/enhancement of jurisdictional features and riparian areas, in addition to the adherence to, or development of, a DBESP, for project design Alternatives 1 and 2 respectively.

FINDING: *Less Than Significant Impact After Mitigation*

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 formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

In August 2014, a Phase 1 field survey and historical records research report was generated by L&L Environmental to evaluate the site for the potential presence of historical resources and determine if previously recorded historical resources were located within the project area. The Phase 1 field survey and archeological records research yielded negative results for archaeological or historical resources. No archaeological resources were found during the field survey and the closest cultural resources were a building and two freight cars within the one-mile radius record search area.

The project site is a closed landfill facility and is surrounded by urban development. The city of Corona does not list the project site as a historical or culturally significant site. The project site 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 project site is a closed landfill facility and is surrounded by urban development. Land uses include, light industrial to the east, single family residential to the south and the I-15 to the west. Project construction will take place primarily within a previously excavated area, and would consist of replacing grouted rip rap with ACB under design Alternative 1 or line the entire channel with concrete under design Alternative 2. The project site is therefore not considered a highly sensitive area for archaeological resources. As mentioned in question (a) above, a Phase 1 field survey and historical records search was conducted by L&L Environmental. The report found that no archaeological resources were present on site; however, if any archaeological resources are found during ground disturbance activities on or near the project site, work shall be stopped immediately until a qualified archaeologist evaluates the cultural resource. Cultural resource(s) found and deemed to be significant by a qualified archaeologist shall be treated in accordance with California Code of Regulations, Section 15126.4(b) and if necessary, the artifact(s) reported and collected in accordance with the local register of historic resources.

In compliance with AB 52, relating to tribal notification of projects under CEQA, RCDWR sent project notification letters (July 2015) to three requesting Tribes; Soboba, Rincon and Pechanga. The Tribes each reviewed the project and concluded that formal consultation was not required. AB 52 notification letters can be found in Appendix B, Cultural Resources Assessment. There were no concerns regarding known cultural resources in the project area.

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 three (3) 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. (ALT 1/ALT 2)

- 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). (ALT 1/ALT 2)

Based on the activities that have already occurred during the life of the landfill/project site (landfill operations, grading, drainage improvements, etc.), in addition to the negative results of the recent field survey and Tribal notification responses, the likelihood of uncovering cultural resources is 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 high 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 a closed landfill facility and surrounded by urban developments. The proposed project involves minor grading and excavation into disturbed areas such as the existing landfill. The excavation activities would essentially cut into areas where waste has been buried and/or remove of the existing rip-rap which covers portions of the south slope of the landfill. Due to the limited depth of the excavation, presence of paleontological resources is unlikely in the site-specific soil (landfill cap and buried waste) and land use conditions (rip rap covered stream banks). 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 known burial grounds located onsite. 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 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:
 - o 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. (ALT 1/ALT 2)

The proposed project was not identified by the NAHC or 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 evidence from the historical records search and the field survey). 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 type="checkbox"/>	<input checked="" 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"/>

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 Elsinore Fault Zone is the closest major fault system to the City of Corona. Historically, the Elsinore Fault zone has also been one of the least active systems.⁷ At its northern end, near the City, the Elsinore Fault zone splays into two segments, the Chino-Central Avenue Fault and the Whittier Fault. Along the southwestern portion of the City, the Elsinore Fault zone is referred to as the Glen Ivy Fault. The Chino-Central Avenue Fault is the closest to the project site, approximately 1.9 miles west of central Corona, whereas the Whittier Fault and Glen Ivy Fault are 3.4 miles and 4.6 miles, respectively, from central Corona. Figure 5.1-1, Geology, of the General Plan Technical Background Report, dated March 2004, clearly shows that no seismic faulting has been identified near the project site and surrounding areas.

The project will not add any structures; therefore, the project will not result in or expose people to potential impacts involving 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). Seismic faulting has not been identified on or near the project site. Since the landfill site is and will remain an open space, and the fact that the project itself will not add 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

6a.iii. Seismic-related ground failure, including liquefaction?

According to the City General Plan Technical Background Report, Figure 5.1-1, Geology, the entire Corona Landfill property and surrounding developments to the north and east are located within a Low Potential area with respect to liquefaction hazard. Since the landfill site is and will remain an open space, and the project itself will not involve any 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

⁷ City of Corona General Plan

6aiv. Landslides?

According to the City General Plan, the potential for earthquake-induced landslides in hillside terrain in the City exists. As indicated in Figure 5.1-1 of the Technical Background Report, in general, areas such as the steep slopes of the Santa Ana Mountains and the steep slopes within the Elsinore Fault zone are considered to be relatively susceptible to earthquake-induced landslides. The closed landfill and project site are located in an urbanized area. In the absence of hillside terrain, the potential that the project would result in or expose people to landslides, mudflows or rock fall is minimal. In fact, the project itself is a proposal to protect and enhance the integrity of the landfill slopes that abut the channel against streambank erosion as part of the post-closure maintenance of the Corona Landfill. 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 Arbuckle loam (AIC) and Rough Broken Land (RuF) soil series with good to fair top soil. Top soil would either be applied back where fill is needed, spread around in other areas adjacent to the SE Channel on landfill property, or applied on top of the ACB. The proposed project would 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 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).

Neither design scenario of the project will involve unstable soil condition from excavation, grading or fill, because excavation and grading will be limited in scale and to either flat terrain south of the channel or short, compacted fill slopes on the landfill side of the channel. In addition, all cut and fill slopes within the two flood plains and on the improved channel banks will be no taller than 12' and constructed at a stable 2:1 grade.

Landfill settlement will not affect the project because the construction area is largely beyond the refuse footprint and confined to the final cover slope that abuts the channel. 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. 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 Corona South 7.5' Quadrangle, Riverside and Orange Counties, California, published by the United States Geologic Survey, shows that the first 675 feet of the channel (approximate) lies in young alluvial fan deposits and consists of pale-gray, unconsolidated, cobble to granule-sized gravel. The remaining portion of the channel lies in young alluvial channel deposits (gray, unconsolidated alluvium) and consists of medium- to fine-grained sand. These unconsolidated alluvium soils have low shrink-swell potential. Therefore, the potential impacts involving expansive soil are considered insignificant.

FINDING: *No Impact Is Identified*

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 is adjacent to existing development properties, light industrial and single family residential that utilize existing wastewater disposal infrastructure. During construction, temporary toilets would be used and there is no need for septic tank systems as part of this project. Implementation of the project would not require septic tanks or alternative waste water disposal systems.

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"/>

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

First and foremost in the evaluation of climate change impacts from a project's GHG emissions, the nature of the emitted GHG must be determined. Since GHG emissions, for example, CO₂ and CH₄, occur naturally in the manner of the carbon cycles, these emissions are biogenic in nature and not considered the primary cause of the existing global warming and climate change trends.⁸ It is the man-made, or anthropogenic, portion of the GHG emissions, which are primarily from burning of fossil fuels, that is considered the primary cause of global warming and climate change. The project will generate greenhouse gases (GHG), such as CO₂ and CH₄, during construction. 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.

It is now a scientific consensus that real and measureable changes to the climate due to global warming are occurring.⁹ It is expected that if left unchecked, these climate changes will continue to intensify, causing catastrophic, worldwide impacts on natural habitats and resources and coastal cities in the coming decades. Although climate change is a global issue, which naturally requires global responses for permanent and effective solutions, both the California legislature and governor recognize the urgency of the issue in that some of its adverse effects on State resources and the environment, public health and safety, and economic well-being are already happening. As a result, several legislative actions have occurred. In 2002, with the passage of Assembly Bill 1493 (AB 1493), California launched an innovative and proactive approach to reduce GHG emissions from vehicular sources, which are responsible for greater than 40% of the total GHG pollution in the State. Moreover, former Governor Arnold Schwarzenegger signed Executive Order S-3-05 (E.O. S-3-05) on June 1, 2005, whose primary objectives are to reduce California's GHG emissions according to the following schedule: 1) 2000 levels by 2010, 2) 1990 levels by the 2020; and 3) 80% below the 1990 levels by the year 2050. In 2006, the governor's goal of contributing to the solutions for global warming was further reinforced with the legislature's passage of Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006. AB 32 sets the same statewide, phased GHG emissions reduction targets to be achieved by 2020 and stipulates that the California Air Resources Board (CARB) enforce these targets by creating a plan that will implement rules and programs that utilize regulatory mandates and market mechanisms to achieve "real, quantifiable, cost-effective reductions of greenhouse gases" from stationary sources, as well as mobile sources, in addition to rule making mandated by AB 1493.¹⁰ Although the bill does not include GHG reduction targets for beyond 2020, it does clearly spell out the intent of the legislature that GHG emissions reduction be continued thereafter.

⁸ The permafrost deposit in Artic region is a good example of the biogenic CH₄ emissions (sequestered in this case) from natural decomposition of organic matter.

⁹ CAPCOA White Paper on CEQA and Climate Change, January 2008.

¹⁰ Although adopted in 2002, rule making had been in a stalemate. On June 30, 2009, the US EPA reversed its previous position and granted the waiver.

The purpose of the project is to protect the landfill slopes by controlling erosion and repairing existing structural damage on the southern bank of the SE Channel as a part of the Corona Landfill post-closure maintenance program. Other permitted post-closure maintenance activities, such as groundwater monitoring, fugitive landfill gas (LFG) emissions monitoring and LFG collection and disposal system maintenance, are not part of the project, and therefore, not subject to this CEQA review. In addition, it should be noted that the closed Corona Landfill continues to generate LFG, which consists primarily of CO₂ and CH₄. However, CARB considers the CO₂ in the LFG and emitted from the LFG flare as biogenic in nature, thus not contributing to global warming. Only the 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 cause global warming. In this light, the project produces GHG emissions from two direct sources: 1) CO₂ and CH₄ in engine exhaust emissions from on-site equipment; and 2) CO₂ in the engine exhaust emissions from workers' vehicles and hauling trucks. Under normal circumstances, existing baseline fugitive LFG emissions from the closed Corona Landfill should not be affected by the channel improvement activities. However, if unexpected circumstances arise and demand that the northern bank of the channel be excavated further than the levels required by the grading plans of the ACB and Concrete Channel scenarios to expose buried waste and release trapped LFG into the atmosphere, the CH₄ in the fugitive LFG emissions will be considered a third and incidental source of GHG emissions from the project.

A. Direct GHG Emissions:

Maximum GHG emissions from the two direct sources (i.e., equipment and on-road vehicles) for both design scenarios are evaluated in the 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 21 times that of CO₂.

As stated previously, the proposed project consists of two alternatives; Alternative 1 consists of the construction of two small floodplains at the southwestern end of the drainage canal and erosion control protection for landfill slopes and floodplains. The second alternative (Alternative 2) consists of the entire channel, bed and banks, natural and created, being lined with a concrete surface. The proposed project is anticipated to generate GHG emissions from construction equipment only, as it is not a source of long-term operational emissions.

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. Currently there is no greenhouse gas threshold for construction emissions. The construction-related GHG emissions were calculated by CalEEMod Version 2013.2.2, 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 SCAQMD draft screening 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 Greenhouse Gas Emissions

A summary of the results are shown below in Table G-1 and Table G-2. Table G-1 shows that Alternative 1 would generate approximately 1.77 metric tons of CO₂e per year (when amortized over 30 years per SCAQMD protocol) and Alternative 2 would generate approximately 2.67 metric tons of CO₂e per year (when amortized over 30 years per SCAQMD protocol). 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 Emissions for Alternative 1**

Category	Greenhouse Gas Emission (Metric Tons/Year)					
	Bio-CO2	NonBio-CO2	CO2	CH4	N2O	CO2e
Alternative 1	0.00	52.96	52.96	0.01	0.00	53.24
CO ₂ e emissions amortized over 30 years						1.77
Screening Threshold						3,000
Exceeds Threshold?						No

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

**Table G-2
Project-Related Greenhouse Gas Emissions for Alternative 2**

Category	Greenhouse Gas Emission (Metric Tons/Year)					
	Bio-CO2	NonBio-CO2	CO2	CH4	N2O	CO2e
Alternative 2	0.00	79.70	79.70	0.02	0.00	80.11
CO ₂ e emissions amortized over 30 years						2.67
Screening Threshold						3,000
Exceeds Threshold?						No

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

B. Incidental GHG Emission:

In the event that the northern bank of the channel needs to be excavated beyond the design limits of either the ACB or Concrete Channel scenarios and into the landfill mass in order to meet specific engineering parameters, buried waste may be exposed and LFG released. It is anticipated that the over-excavation may expose no more than 4,000 square feet/acreage of landfill content for up to 8 hours. Refuse near the channel is older, thinner and produces much less LFG than the larger body of the landfill. This has been evident, during LFG readings, where LFG detection probes on the south side of the channel have not detected

any trace of methane in over a decade. Moreover, the project will require 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.

One way to minimize fugitive LFG/CH₄ emissions is to limit the duration and/or exposure area by covering up the exposed area with dirt or tarp as soon as practical. Another way to reduce fugitive emissions, when exposure duration and area cannot be practically restricted, is to apply greater suction in the LFG collection system to remove more LFG faster through the system, thus reducing the amount of fugitive emissions at the exposed area. Lastly, as mentioned in the preceding paragraph, the landfill excavation operation will require a Permit to Construct/Operate from the SCAQMD, which will impose appropriate mitigation measures to limit air emissions from the operation. Compliance with the SCAQMD permit requirement will reduce the LFG/CH₄ emissions to insignificant levels.

Conclusion:

Although CEQA does not require a lead agency to establish significance thresholds for GHG, the absence of an adopted threshold does not relieve the agency from the obligation to address project GHG emissions and determine impact significance. 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, as the project's lead agency as well as operator of the closed Corona Landfill, has determined that the proposed project will not have a significant impact on global warming/climate change on the basis that the project's GHG emissions, based on the results of the quantitative analysis prepared above (insignificant project emissions) as well as that the project is a small and temporary (\pm 50 days) drainage repair construction project. Moreover, the project will provide a permanent solution to the chronic drainage erosion problem, which is a long term threat to the surface integrity of the closed Corona Landfill. Maintenance of the landfill surface integrity is crucial to minimize fugitive LFG emissions into the atmosphere (i.e., sequester GHG), thus protecting against impacts on climate change. 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 County of Riverside Draft Climate Action Plan (CAP) in December of 2015. The Plan presents the goal to reduce the County's internal and external GHG emissions to levels consistent with the target reductions of AB 32. The overarching goals of the County of Riverside 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 (pursuant to CEQA Guidelines Section 15064.7(a), "each public agency is encouraged to develop and publish thresholds of significant that the agency uses in the determination of the significance of environmental effects") which allows for counties to set significant threshold standards. 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.

The screening tables are based on a point system of GHG reduction options ranging from home insulation, to the use of energy efficient windows, all providing a point scale, with higher points earned for high achieving energy efficient, water conserving products/programs etc., and lower points earned for the less effective products/programs, etc. If a project can obtain 100 points from the screening table, the mitigated project will implement pertinent reduction measures such that it meets the reduction goals of the CAP and a less than significant finding can be made for the project.

Development projects exceeding the 3,000 MT CO₂e emissions level and not using the screening table, will use the latest version of the California Emissions Estimator Model (CalEEMod) to conduct the GHG analysis and calculate the project's GHG emissions.

However, the SE Channel Project is a construction-based project and the CAP does not have any thresholds for construction-based emissions. Furthermore, the project's amortized emissions do not exceed the draft SCAQMD threshold for all land uses, and is consistent with the goals of the County of Riverside Climate Action Plan as mentioned above. To be conservative, and to assist in determining whether the project would have a significant impact, the GHG analysis conducted by Kunzman Associates Inc., used the SCAQMD draft local agency tier 3 threshold and Riverside County's CAP screening threshold of 3,000 MT CO₂e (as mentioned in the preceding paragraph) per year for all land use types. The project would generate CO₂e emissions below the 3,000 MT CO₂e thresholds as shown in tables G-1 and G-2 and would therefore be less than significant.

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 checked="" type="checkbox"/>	<input 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?

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

The project consists mainly of erosion control improvements to an existing drainage channel. 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 may not even need to store diesel fuel onsite for equipment operation, since periodic mobile fueling from a fuel truck will suffice. Therefore, the project would not ordinarily involve a risk of accidental explosion or release of hazardous substances.

However, there is a possibility that grading on the landfill side of the channel's bank could expose buried waste within the landfill, which while unlikely, could be deemed hazardous material. In the event that buried waste is encountered during subgrade preparation on the northern bank, the exposed material will be evaluated by RCDWR staff trained in recognizing hazardous waste. If the waste is determined to be hazardous, or there is any doubt on the nature of the material, a trained hazardous waste inspector from the RCDWR shall evaluate the material for the potential presence of hazardous elements. If no hazardous elements are identified, at the least, the exposed trash will be re-buried on the spot, compacted, and covered with a layer of clean dirt, on top of which the ACB or concrete subgrade is placed. If for legitimate engineering concerns that the exposed waste be removed from the channel bank, the hazardous waste inspector will monitor the excavation process to verify the absence of hazardous elements in the excavated waste, which will then be either disposed on-site, if approved by the LEA and SAWQCB, or transported along with the vegetation waste to the El Sobrante Landfill for disposal. In light of the possibility of landfill excavation, the grading operation may require a SCAQMD Rule 1150 Permit. In the event a Rule 1150 Permit is needed, RCDWR shall consult with SCAQMD and apply for the Permit accordingly.

In the event that hazardous materials are identified in the exposed waste, RCDWR's Environmental Compliance Manager (ECM), along with experienced hazardous waste staff, will conduct an in-depth investigation of the situation to assess severity in terms of risk of a release of hazardous substances and/or potential explosion. If the ECM makes a determination that a legitimate risk of the release of hazardous substances or accidental explosion, the site will be deemed an "uncontrolled hazardous waste site" and hence subject to the regulation of CCR Title 8, Section 5192(q). The uncontrolled hazardous waste area will be off limits to project construction and operations staff until it is cleaned up and clear of the hazardous substances by implementing the applicable procedures and requirements of Section 5192(q). These procedures and requirements are listed below as mitigation measures to reduce the hazard to the public and the environment.

MITIGATION MEASURES:

- HAZ-1 If exposed trash is encountered during grading of the channel's northern slope, RCDWR staff, trained in recognizing hazardous waste, will investigate for potential presence of hazardous elements in the trash. Clearance of hazardous elements in the trash by RCDWR staff trained in recognizing hazardous waste, is required for proper re-burial of the trash on-site or disposal of the trash at the El Sobrante Landfill. (ALT1/ALT 2)
- HAZ-2 If potential hazardous materials are identified but no acutely hazardous materials are present in the exposed trash, the location will be handled as an "uncontrolled hazardous waste site" and subject to the regulation and applicable requirements of CCR Title 8, Section 5192(q). Specifically, the Environmental Compliance Manager (ECM) and the hazardous waste inspection team of the RCDWR shall implement the department's Emergency Action Plan's hazardous waste emergency response procedures to clear all hazardous materials and then decontaminate the site, when warranted. The excavated hazardous materials will be temporarily stored on a protected surface in the Project Area, and either the Department's licensed hazardous material transport vehicles or a licensed hazardous waste hauler will be retained to evacuate the materials within 24 hours of excavation to a permitted facility for storage, processing or disposal. A final clearance from the ECM is required before the slope grading and subgrade construction work can resume. (ALT 1/ALT 2)
- HAZ-3 In the unlikely event that acutely hazardous materials are identified in the exposed trash, the Hazardous Materials Response Team of the County Environmental Health Department will be immediately notified. The slope grading and subgrade construction will not resume until a final clearance from the Environmental Health Department is issued. (ALT 1/ALT 2)

While grading on the landfill side of the channel's bank could expose buried waste, based on the historical record of the types of accepted waste at the landfill, it is unlikely, that the exposed waste would be considered hazardous. Regardless, through implementation of the RCDWR's hazardous waste emergency response procedures, as identified in the Emergency Action Plan, as well as compliance with mitigation measures HAZ-1 through HAZ-3, which identifies that exposed waste shall be evaluated and addressed by trained personnel, impacts relating to hazardous materials are less than significant.

FINDING: *Less Than Significant Impact After Mitigation*

- 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 operation and maintenance 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 from these potential hazards to a less than significant level.

Excavation and grading during floodplain construction may accidentally expose buried waste, which may contain hazardous materials. As mentioned in the preceding section (8a), in the unlikely event that hazardous materials are accidentally exposed during excavation, the implementation of mitigation measures HAZ-1 through HAZ-3 would ensure that a swift response is implemented to reduce the risk of hazardous materials from being released into the environment, and therefore would reduce the impact to less than significant.

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 nearest schools to the project site are Centennial High School, located approximately 0.46 miles from the site, and John Stalling Elementary School, located approximately 0.84 miles from the project site. Both schools are a greater distance than one-quarter mile. Therefore no impacts would occur from the emission of hazardous materials or substances within 0.25 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 Cortese¹¹ 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*

¹¹ CalEPA (2014) Cortese List Data Sources. Accessed online, July 23, 2014 at: <http://www.calepa.ca.gov/SiteCleanup/CorteseList>

- 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 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 Corona Municipal Airport, located at 1886 Butterfield Dr. Corona, approximately 4.7 miles from the project site. 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?**

The 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, only for the landing of helicopters, approximately 11 miles from the project site, located on Riverside County Community Hospital property. 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 Corona Landfill is located in an urbanized area and near major transportation corridors, including I-15 and State Highway 91. Since the project does not involve external hazardous features sufficient to pose a major threat to public health and safety or create an environmental impact of catastrophic nature, nor will it require any road closure or detour during construction, it is not expected to interfere with the City's or County's emergency response plan or emergency evacuation plan. As discussed in the above section, the unlikely event of release of hazardous substances during grading of the landfill slope can be safely handled on-site. Access to the site shall be maintained. 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 Corona Landfill site is not located within a fire hazard area, as it is surrounded by industrial and residential developments. Existing riparian vegetation within the project channel will not present a fire hazard as this vegetation type is not prone to fire like chaparral and weeds are. In general, the project itself is a drainage repair and will not involve activities and materials that are fire hazardous. Therefore, the project is not

anticipated to 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.

FINDING: *No Impacts Identified*

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. Otherwise 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"/> |

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

The project is intended to repair and improve the existing conditions of the SE Channel, in order to provide a long-term solution to recurrent erosion of the streambed and channel banks. Besides sediment loading, of particular concern is erosion to the landfill slope that abuts the channel, which could result in discharge of landfill content into surface waters, and thus possibly causing an adverse effect on downstream surface water quality. Due to the current substandard hydraulic attributes of the SE Channel to handle stormwater flows from urban development upstream, overflowing and serious damage to the existing grouted riprap on the banks have been caused by storms much smaller than a 100-year storm magnitude. Either project design alternative can correct the present conditions and improve the hydraulics of the channel to handle stormwater flows from up to a 100-year 24-hour storm event. Therefore, the project will contribute to long-term positive effect on surface water quality.

However, project construction could cause short term impacts to surface water quality from activities such as demolition, grading, cutting etc. which would generate sediment created by soil disturbance which in turn could affect waters, wetlands, and streambed resources downstream from the project site. 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 RCDWR standard construction BMPs which include, but are not limited to:

- Earth Dike and Drainage Swales (EC-9)
- Velocity Dissipation Devices (EC-10)
- Slope Drains (EC-11)
- Silt Fence (SE-1)
- Check Dams (SE-4)
- Fiber Rolls (SE-5)
- Street Sweeping and Vacuuming (SE-7)
- Stabilized Construction Entrance / Exit (TC-1)
- Drain Inserts (MP-52)
- Hydroseeding (EC-4)
- Streambank Stabilization (EC-12)
- Clear Water Diversion (NS-5)
- Sediment Trap (SE-3)
- Straw Bale Barrier (SE-9)

Details regarding the listed BMPs can be found in Appendix K. In addition, the RCDWR shall continue to implement the landfill post-closure maintenance program that includes maintenance of the SE Channel and associated water quality protection requirements. Therefore, the project is not anticipated to violate any water quality standard or 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 would not change existing land uses to the type 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 project construction or implementation. Project implementation of Alternative 1 consists of increasing the width of the drainage channel, and installing ACB, which would allow water to filter through the ACB. Alternative 2 would require cementing of the streambed and streambank which might reduce the amount of filtration. Alternative 2 would reduce infiltration from precipitation or from surface runoff from development upstream. The size of the impervious surface in Alternative 2 is small and would not substantially impact recharge to the local groundwater basin such that lowering of the local groundwater table is anticipated. Furthermore, the channel area is not a resource for substantial groundwater recharge. Surface water will continue to percolate in the ground by flowing into natural plant cover basins, open space, and urban landscaped areas upstream and downstream of the project area.

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 construct two small floodplains, approximately 0.72 acre in total, at the southwestern end of the drainage channel along with the application of ACB for erosion control. In order to facilitate construction and improvements on the SE Channel, water may be diverted around active construction areas to locations further downstream. Diversion of the nuisance water is temporary during construction and will resume its natural course once the project is complete. The same would occur during construction of design Alternative 2. Temporary water diversion would be accomplished by re-directing water into a pipe and running the pipe around the immediate work areas, or creating a levee around the work area to protect it from the stream.

The conceptual design of Alternative 2 consists of a trapezoidal channel, which tends to confine low flows thus maintaining higher velocities which may decrease the amount of sediment and trash deposits. Second, the concrete channel alternative is also effective in protecting the channel against erosion. Therefore, the project would not result in substantial erosion or siltation on-site.

The existing drainage pattern, for either alternative, would not be substantially altered since water would be allowed to continue its course along the SE Channel alignment both during and after construction of the project. During construction, as explained above, water would be diverted during the construction of both alternatives and would only be temporary. Water would continue its course past the project area into existing concrete channelized tunnels and culverts, thus not resulting in substantial erosion off-site. 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 of amount of surface runoff in a manner, which would result in flooding on- or off-site?

The proposed project proposes to install an erosion control surface on the eroded banks and bed of the SE Channel for protection from 100-year 24-hour storm events. As such, the project would not result in significant changes in drainage patterns and surface runoff rate and amount with respect to the adjacent landfill unit. In contrast, the absorption rates of the channel's surfaces will be affected by the project, dependent upon which design scenario is installed in the channel. Under the Alternative 1 design, the existing impervious grouted riprap on the banks and certain incised streambed areas will be replaced with an ACB liner, whereby a mesh of chained hollow concrete blocks is laid over a drainage layer

on top of an engineered subsurface along the northern bank and streambed. In addition, the construction of two (2) small floodplains, though ACB-protected, would likely increase the absorption rate of the floodplain areas slightly compared to their existing conditions. Therefore, the overall surface absorption rate of the reconstructed channel is expected to be slightly higher than that of the pre-project channel. Given that the channel's primary function is for regional stormwater drainage, this moderate increase in surface absorption rate is not expected to have an adverse impact on hydrology, channel hydraulics, and drainage patterns.

Conversely, under Alternative 2, the whole length of the current channel, banks and bed, will be lined with concrete, a highly impervious surface. As a result, the overall surface absorption rate of the channel will be lower than that of the pre-project channel. But since the net increase in the impervious surface area is largely limited to the lining of the streambed of the channel, plus several currently unlined portions of the southern bank (not exceeding 1/4 acre in total), when compared to the existing conditions, the resulting net increase in surface runoff volume from the added impervious surfaces is insignificant and more than sufficiently be handled by the increased flow capacity of the channel. Therefore, this project scenario 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 will improve an existing storm water drainage system and with the construction of the flood plains, slightly increase the capacity of the system. 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 into the stream from the project site. 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 Map¹² 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 elevation of the 0.2-percent-annual-chance flood, are labeled Zone C or Zone X.

A review of the Flood Insurance Rate Map for the project area, Map No. 06065C1356G, (revised August 8th, 2008) shows the project site to be designated as Zone X- an area that is determined to be outside the 1 percent and 0.2 percent annual chance floodplains or the 100-year flood, and 500-year flood, respectively. Furthermore, there is no housing located on the project site nor is housing proposed as part of project implementation. Thus no housing will be placed within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary of 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?

The proposed project does not propose erected structures (buildings, fences etc.) that would impede or redirect flood flows. The project improvements would be below grade, erosion control installation of ACB under design Alternative 1, or lining the entire channel with concrete under design Alternative 2. Furthermore, as explained in (g), above, the project site is outside of the 100-year flood hazard area, and does not propose to build structures 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 (g) above, the project site is located in Flood Insurance Rate Map, Zone X, areas designated to be outside the 0.2% annual chance floodplain. The proposed project is intended to reduce erosion during heavy rains and to reduce flooding and improve stream flows. The proposed project would not expose people or structures at a significant risk of loss, injury or death involving flooding.

FINDING: No Impact Identified

¹² Federal Emergency Management Agency, Flood Insurance Rate Maps, Community Panel No. 2028, Map No. 06065C1356G

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

The project is located approximately 27 miles from the Pacific Coast, precluding the possibility of significant impacts from a tsunami. The closest lake is Lake Mathews, approximately 4.2 miles where a potential seiche could occur. According to the City of Corona General Plan, the flow pattern from this dam is westward away from the project site.¹³ Furthermore, the project site and project vicinity is relatively flat and urbanized, 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10a. Physically divide an established community?

The proposed project would repair and improve the existing drainage channel and armor the landfill slopes at the closed Corona Landfill. The proposed project will not disrupt or divide the physical arrangement of an established community.

FINDING: No Impact Is Identified

¹³ City of Corona General Plan, Public Health and Safety, Flood Hazards.

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 Corona Landfill property encompasses a total of 76.86 acres on 7 parcels, all of which are designated as "MU2" (Mixed Use: Industrial & Commercial) in the current City of Corona General Plan (General Plan). According to the City's Zoning Map Book, dated June 12, 2009, the majority of the landfill property is zoned M1 (Light Manufacturing), with the exception of one of the project's parcels, namely, APN 107-080-006, which is zoned M4 (Industrial Park). The zoning for the three County-owned vacant parcels is R1-20 (Single Family Residential, 20,000 sf. lot min.).

The landfill site is surrounded by light industrial and commercial developments on the east, north, and west, and single family residence in the south. The proposal is a drainage maintenance/improvement project, not a project that would change the existing land use. The Corona Landfill will remain as open space after the project. Therefore, the project is consistent with existing zoning and no land use compatibility issues will result.

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 Countywide solid waste system forward to meet the AB 939 mandates. It does not provide much policy guidance for closed or inactive landfills, such as the Corona Landfill, with the exception in the Siting Element, Policy 2-3, which states that: "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."

Although no longer in active service of providing waste disposal capacity to the County and city residents and businesses, the Corona Landfill is still an integral part of the Countywide landfill system, as it has some bearing on the system's long-term viability, environmental liability, maintenance obligations, and post-closure financial assurance for landfills under the requirements of CCR, Title 27.

Since the project will facilitate long-term maintenance of the landfill's structural integrity by minimizing erosional damage to the SE Channel and landfill slope, thus ensuring public health and protection of the environment, it is consistent with Policy 2-3 of the Siting Element of the CIWMP and in compliance with post-closure maintenance requirements of Title 27.

FINDING: *Less Than Significant Impact*

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

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)

As discussed in detail in Section 4, Biology, question 4(f), with the implementation of mitigation measures BIO-1 through BIO-11, which address biological monitoring, required MSHCP species surveys, replacement/enhancement of jurisdictional features and riparian areas, in addition to the adherence to, or development of, a DBESP, for project design Alternatives 1 and 2 respectively, the project would not conflict with the MSHCP.

FINDING: *Less Than Significant Impact After Mitigation*

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"/>

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 Corona General Plan, Technical Report was consulted to assess the presence of areas containing mineral resources in the project site. Zones that are classified as MRZ-2 are areas having regional or statewide significance. Areas mapped as MRZ-2 are located west of Highway 71 and north of SR-91.

The Mineral Resource Zone Classification for the project site is MRZ-2a and b for crushed stone and sand & gravel. The site does not appear to be "Designated" as being of regional or statewide significance for mineral resources. 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?

According to the City of Corona General Plan there is a substantial amount of minerals available within the City, occurring in the hillsides east of Temescal Creek and in the Santa Ana Mountains. However 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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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?

A Noise Impact Analysis Report was prepared by Kunzman Associates Inc., dated July 2015, which assessed the noise and vibration impacts that may occur with the construction of the proposed Corona SE Channel Project. Notwithstanding that this project is a public project on County property, and applicable County of Riverside entitlements and standards apply, the Report also identified applicable City of Corona policies and ordinances for discussion purposes. Noise measurements were taken on the project site adjacent to the closest residential properties. Ambient noise levels were compared to modeled noise levels that would occur during construction of the proposed project in order to assess noise impacts. The analysis that follows was based on the results of the Report.

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 erosion control improvements and widening of the SE channel. 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 (See Appendix J, Noise Impact Analysis).

The proposed use is not considered a noise-sensitive use; however, noise standards applicable to the project are the Riverside County General Plan, and Ordinance No. 847, *Regulating Noise*, codified under Chapter 9.52, Section 9.52.020 of the County of Riverside Municipal Code (both are used interchangeably). Although public projects are not subject to Ordinance No. 847 during construction, the project will comply with the restrictions addressing construction hours contained within the ordinance.

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 SE Channel 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. Notwithstanding, a site survey (noise

study) was conducted by Kunzman Associates Inc., in June 2015, in compliance with this policy. The Project 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.

Several mitigation measures were developed to prevent and mitigate noise impacts on surrounding uses. With the implementation of the project's mitigation measures, noise impacts on surrounding uses are expected to be less than significant.

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

Construction noise impacts on adjacent uses will be minimized primarily by: 1) the installation of temporary sound barriers; and, 2) limiting construction activities between the hours of 7:00AM to 6:00PM, in compliance with Ordinance No. 847.

- 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. No mitigation is required.

MITIGATION MEASURES:

- 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. (ALT 1/ALT 2)

- 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 Health Services Agency, Occupational Health and Safety Department and RCDWR. (ALT 1/ALT 2)
- N-3 The project shall mandate that the construction contractor prohibit the use of music or sound amplification on the project site during construction. (ALT 1/ALT 2)
- 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. (ALT 1/ALT 2)
- N-5 During project construction, the use of heavy equipment adjacent to parcels 107-201-021, 107-201-022 and 107,201,023 shall not occur on Saturday or Sunday. (ALT 1/ALT 2)
- N-6 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. (ALT 1/ALT 2)
- N-7 Delivery of equipment and materials to the project site shall occur between the hours of 7:30AM to 4:30PM. (ALT 1/ALT 2)
- N-8 For the duration of construction activities, the construction manager shall serve as the contact person should noise levels become disruptive to local residents. A sign shall be posted at the project site with the contact phone number. (ALT 1/ALT 2)

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-8, which include limiting construction hours, prohibiting music or sound amplification, requiring workers to wear hearing protection, enforcing RCDWR's idling policy and prohibiting the operation of heavy equipment on Saturday or Sunday within specific parcels in close proximity to residences, 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?

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground vibration that spreads through the ground and diminishes in strength with distance. Buildings respond to these vibrations with varying results ranging from no perceptible effects at the low levels to slight damage at the highest levels. Table N1 gives approximate vibration levels for particular construction activities. Typically, Peak Particle Velocity (PPV) is used to

describe vibration. This data provides a reasonable estimate for a wide range of soil conditions.

**Table N1
Vibration Source Levels for Construction Equipment**

Equipment	Peak Particle Velocity (inches/second) at 25 feet
Pile driver (impact)	1.518 (upper range)
	0.644 (typical)
Pile driver (sonic)	0.734 upper range
	0.170 typical
Clam shovel drop (slurry wall)	0.202
Hydromill	0.008 in soil
(slurry wall)	0.017 in rock
Vibration Roller	0.21
Hoe Ram	0.089
Large bulldozer	0.089
Caisson drill	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003

Source: Noise Impact Analysis, Kunzman Associates Inc.

Due to the proximity of the single-family detached residential dwelling units south of the project, construction activities associated with either project alternative may result in ground borne vibration that is noticeable, but would be limited to activities within 100 feet of sensitive receptors and would only occur during site grading and preparation activities.

As shown in Table N2, the threshold at which there may be a risk of architectural damage to normal houses with plastered walls and ceilings is 0.20 PPV, relative to the distance and the equipment used. For example, it is possible for a vibration roller to cause architectural damage to a home if it is operating at 10 feet, but if the same vibratory roller is operating at 150 feet away from the property, damage to the home is unlikely. The primary source of vibration during construction would be from the use of the medium dozer. As shown in Table N1, a large dozer could produce up to 0.089 PPV at 25 feet. Under either project alternative, use of vibratory equipment within 25 feet of adjacent residential structures and improvements could result in structural damage. However, construction activities will *not* occur within 25 feet of any of the adjacent properties. To ensure that all construction activity is restricted from being conducted within 25 feet, mitigation measure N-9 shall be implemented, which requires a 30 foot buffer from the construction site to residences along the SE channel alignment.

**Table N2
Typical Human Reaction and Effect on Buildings Due to Groundborne Vibration**

Vibration Level Peak Particle Velocity (PPV)	Human Reaction	Effects on Buildings
0.006-0.019 in/sec	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08 in/sec	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10 in/sec	Level at which continuous vibration begins to annoy people	Virtually no risk of "architectural" (i.e., not structural) damage to normal buildings
0.20 in/sec	Vibrations annoying to people in buildings	Threshold at which there is a risk to "architectural" damage to normal dwelling - houses with plastered walls and ceilings
0.4-0.6 in/sec	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges.	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: Noise Impact Analysis, Kunzman Associates Inc.

MITIGATION MEASURES:

- N-9 Construction contractor shall delineate and maintain a 30 foot buffer between construction activities and the residences adjacent to SE channel alignment. (ALT 1/ALT 2)

During the construction of the project, standard construction equipment will be utilized to remove vegetation, grade the site, and either install ACB or construct the concrete channel. 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 with implementation of mitigation measures N-1 through N-8, as well as N-9, which requires a 30-foot buffer from the construction site to residences along the SE channel alignment, impacts resulting from ground-borne vibration or ground-borne noise would be less than significant.

FINDING: *Less Than Significant Impact After Mitigation*

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 drainage improvements. 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 drainage improvements, the project site will continue to function as a closed landfill and storm water drainage channel for urban run-off; 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 south floodplain portion of the channel under design Alternative 1, has the potential to be the most noise intensive phase of either design Alternative. The activity will only occur for a period of less than three days. The construction project is linear in nature and will move away from sensitive receptors during the duration of the construction project. While noise levels will be higher than ambient during construction of the project, public projects are exempt from the noise standards and thresholds established under Ordinance No. 847 during construction. Regardless, mitigating factors such as (1) the noise magnitude from the construction equipment used during construction will be less than the highest magnitude noise generating equipment, e.g., pile drivers, jack hammers etc.; (2) the time of occurrence when the project will take place will be during a time allowed by the County Noise ordinance, and a time when people are less susceptible to noise; and, (3) the short duration of the project, ensures that surrounding residents will not be significantly impacted by the Project.

To further reduce ambient noise levels for surrounding residences, temporary sound barriers will be installed along the southern property line, as required under mitigation measure N-10. Additionally, operation of heavy construction equipment will not be allowed on Saturday or Sunday within the project area south of the SE Channel, as identified in mitigation measure N-5.

MITIGATION MEASURE:

- N-10 Construction contractor shall construct/install a temporary sound barrier along the southern property line where it meets parcels 107-201-007 and 107-201-011 and where feasible, along any other residential properties directly adjacent to the landfill property where there is currently no solid barrier. (ALT 1/ALT 2)

With the three mitigating factors discussed above; magnitude, time of occurrence and duration of the project, in addition to implementation of mitigation measures N-1 through N-10, which include limiting construction hours, prohibiting music or sound amplification, enforcing RCDWR's idling policy, prohibiting the operation of heavy equipment on Saturday or Sunday within specific parcels in close proximity to residences, delineation of a 30-foot