CITY OF PALM DESERT
CEQA Environmental Checklist & Environmental Assessment

Project Title: Haystack Stormwater Channel Rehabilitation Project	
Lead agency name and address:	City of Palm Desert 73-510 Fred Waring Drive Palm Desert, CA 92260
Contact persons and phone number:	Nick Melloni Development Services Department City of Palm Desert 73-510 Fred Waring Drive Palm Desert, CA 92260 (760) 346-0611
Project location: East of State Highway 74, west of Portola Avenue, immediately north of Haystack Road. **APNs:** 630-025-050 & 052; 630-190- 051 & 054; 628-290-013 Portion of the SE ¼ of Section 30, portion of S1/2 of Section 29, Township 5 South, Range 6 East, San Bernardino Baseline and Meridian	
Project sponsor's name and address:	Public Works Department City of Palm Desert 73-510 Fred Waring Drive Palm Desert, CA 92260 (760) 346-0611
General Plan Designation: Open Space; Conventional Suburban Neighborhood; Golf Course & Resort Neighborhood	**Zoning:** Open Space

Description of Project: The Haystack Channel has been in place for several decades and was constructed to intercept north-flowing tributary flows crossing Haystack Road and to convey them to the Portola Avenue culvert and into a series of golf course drainage system systems farther east. These flows ultimately make their way to the Whitewater River approximately 1,400 feet west of Washington Street. The Project segment extends from State Highway 74 on the west to Portola Avenue on the east. The sub-segment planned for improvements extends from just west of Alamo Drive eastward to the Portola Avenue culvert.

The subject facility provides an outlet for a drainage area defined by Highway 74 and extending as far south as Indian Hills Way, Andreas Canyon Drive, Carriage Trail, and lrontree Drive and as far east as Portola Road. Today's Haystack Channel is a combination of improved and unimproved channel reaches that begins at Highway 74 and flows east to Portola Avenue and beyond. Three distinct reaches define the channel, including.

1. Highway 74 to Alamo Drive: This reach of channel is characterized by a shallow swale located within a turfed green belt. Two small diameter culverts cross under Alamo Drive at the low end of the reach. No changes to this segment of the channel are proposed.

2. Alamo Drive to Heliotrope Drive: Being the middle reach of the project area, this segment of channel is improved with inlets and other facilities. This segment is grass-lined with numerous mature trees along the upper channel slopes. Storm drain inlets are located on both sides of this channel reach and

vary in size and geometry. Existing facilities also include a minimally functional subsurface nuisance water drain composed of 24-inch grated inlets, sporadic clean outs, and a sub-grade 8-inch diameter perforated pipeline that runs the length of this channel reach. Four 48-inch diameter culverts cross under Heliotrope Drive at the downstream end of the reach.

3. Heliotrope Drive to Portola Avenue: The final Project reach of the Haystack Channel is generally unimproved with native soil bottom and side slopes. There is historic evidence of channel and bank erosion. There is also evidence of decreased capacity in this reach. Two existing (visible) storm drain inlets are located along the south side of this reach. Each inlet includes minimal improvements. The downstream end of this reach of the channel is Portola Avenue. Surface and subsurface improvements at Portola Avenue indicate this roadway floods during larger return frequency storms. The low-level crossing here is a multiple cell reinforced concrete box culvert that is currently operating at greatly diminished capacity due to sedimentation.

Runoff tributary to the Haystack Channel is generated primarily in residential areas located south of Haystack Road. Minimal runoff is introduced to the channel from Calliandra Street via inlets located on Alamo Drive north of the channel. Review of aerial photography and field reconnaissance indicate four potential drainage areas in a larger tributary area south of Haystack Road. These drainage areas are tributary to the Haystack Channel at Alamo Road, Chia Road, downstream of the intersection of Silver Spur Trail and Sun Coral Trail, and Portola Avenue. According to the project engineer's technical memorandum, there are eight (8) storm drains that discharge into the subject channel, ranging from 18-inch reinforced concrete pipe (RCP) to a 2-foot by 6-foot reinforced concrete box (RCB).

CEQA-Plus and Satisfying NEPA

The Project involves or may involve permitting by the US Army Corps of Engineers (USACE) pursuant to Section 404 of the Clean Water Act (CWA). The project is therefore subject to federal environmental review requirements. All applicants seeking federal CWA permits must comply with CEQA and provide sufficient information pursuant to the National Environmental Policy Act (NEPA) so that the USACE can document compliance with federal environmental laws. The USACE will determine federal compliance based upon this "CEQA-Plus" environmental assessment.

This Mitigated Negative Declaration (MND) has been prepared to address the CEQA-Plus requirements to satisfy NEPA and USACE NEPA Guidelines. These requirements include documentation of compliance with applicable federal regulations, including the Endangered Species Act, the National Historic Preservation Act, the federal Clean Air Act, Environmental Justice, Farmland Protection Policy Act, Flood Plain Management, Migratory Bird Treaty Act, Protection of Wetlands/Clean Water Act (Sec 404), and Safe Drinking Water Action, Sole Source Aquifer Protection.

No project alternatives have been evaluated. The proposed project is the reconstruction of an existing flood control channel, which currently serves an extended residential neighborhood.

Project Objectives and Scope

The Haystack Channel Rehabilitation project considers numerous issues including nonoperational nuisance water drains, hydraulic capacity, impact of flood waters on existing utilities, erosion and sedimentation, and protection of existing storm drain outlets. More specifically, the project is to meet the following objectives.

- ► Capture and convey nuisance water to drains located between Alamo Drive and Heliotrope Drive.
- ► Optimize hydraulic capacity of culverts crossing under Alamo Drive, Heliotrope Drive and Portola Ave.
- ► Relocate existing SCE poles and overhead lines currently located approximately 140 feet east of Heliotrope Drive crossing the channel.
- ► Remediate sedimentation and diminished channel capacity east of Heliotrope Drive.
- ► Protect storm drain outlets east of Heliotrope Drive.

Construction Access and Staging

The Project proposes multiple points of access during construction, including along Portola Avenue and an existing access road located on the north side of the channel. Access will also be taken from within the channel and occasionally along the south side of the channel. Construction staging is planned on a City-owned parcel (APN 630-200-021) located at the eastern reach of the channel, approximately 225 feet north of the intersection of Haystack Road and Portola Avenue, and immediately south of Marrakesh Drive.

Project Description

The Project portion of the subject Haystack Channel extends from Alamo Road to Portola Avenue. On the west end of the Project, planned improvements will begin immediately east of Alamo Road with the removal of the existing nuisance water drain system located under the channel invert (channel centerline). This system will be replaced by four (4) underground, 48-inch diameter infiltration pipes and gravel beds with manhole access into each. The Project will also install underground chambers at each of the four storm drain outlets within this reach of the channel. Damaged irrigation will be removed and replaced. Existing trees and shrubs will be avoided to the greatest extent practicable, however, some loss or relocation of in-channel vegetation is expected. Disturbed portions of the grass-lined channel will be restored.

East of Heliotrope Drive the culverts passing upstream flows under Heliotrope Drive will discharge into a planned riprap energy dissipater and thence onto the native, soft bottom bed of the channel. The channel side slopes in this reach and extending to Portola Avenue will be regraded and shaped, and will be lined with rip-rap to a height of approximately 8 feet above the channel bed. A sub-grade side slope rip-rap cut-off wall will extend slope protection approximately 8 feet below the channel bed elevation. East of Heliotrope Drive approximately 39 to 68 feet of soft, sandy channel bottom will remain, similar to existing conditions. Existing trees and shrubs will be avoided to the greatest extent practicable, however, some loss or relocation of in-channel vegetation is expected.

Phasing

Project construction is expected to occur in one phase.

Utilities and Service Providers

The following agencies and companies serve the Project area:

1. Sewer: Coachella Valley Water District (CVWD)
2. Water: Coachella Valley Water District (CVWD)
3. Electricity: Southern California Edison (SCE)
4. Gas: Southern California Gas Company
5. Telephone/Cable: Frontier Communications/Spectrum
6. Storm Drains: City of Palm Desert

Surrounding Land Uses:

North: Single-family residential neighborhoods and Marrakesh resort residential community
South: Haystack Road with Single-family residential neighborhoods beyond
East: Continuation of channel, Living Desert Zoo & Botanical Gardens, Vintage Club residential community
West: State Highway 74, church/school complex beyond

Other public agencies whose approval is or may be required (e.g., permits, financing approval, or participation agreement.)

Coachella Valley Water District
Regional Water Quality Control Board
California Department of Fish & Wildlife
US Army Corps of Engineers

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics		Agriculture and Forestry Resources		Air Quality
	Biological Resources		Cultural Resources		Energy
	Geology /Soils		Greenhouse Gas Emissions		Hazards & Hazardous Materials
	Hydrology / Water Quality		Land Use / Planning		Mineral Resources
	Noise		Population / Housing		Public Services
	Recreation		Transportation		Tribal Cultural Resources
	Utilities/Service Systems		Wildfire		Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency) 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 could 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 addressed.
	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 that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Nick Melloni
City of Palm Desert

Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross referenced).
5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. 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). Reference 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 impacts to less than significance.

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02.14.23

Exhibit

1

TERRA NOVA®
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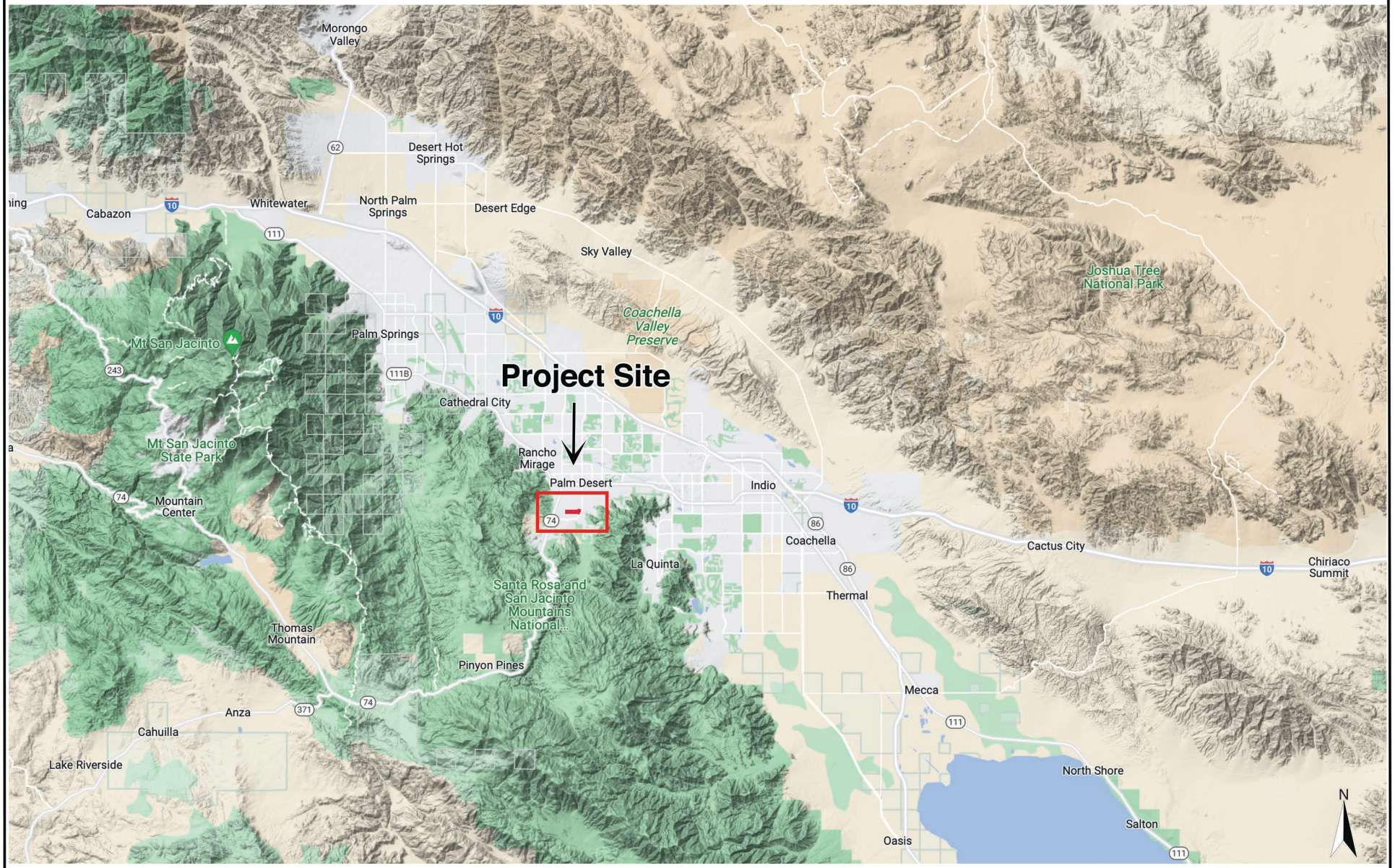
Haystack Channel Improvement Project
Regional Location Map
Palm Desert, California



Source: Google Maps, 2023

02.14.23

Exhibit 2

TERRA NOVA®
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Haystack Channel Improvement Project Initial Study
Vicinity Map
La Quinta, California

Source: Google Earth Image, 06.11.21

05.25.23

TERRA NOVA®
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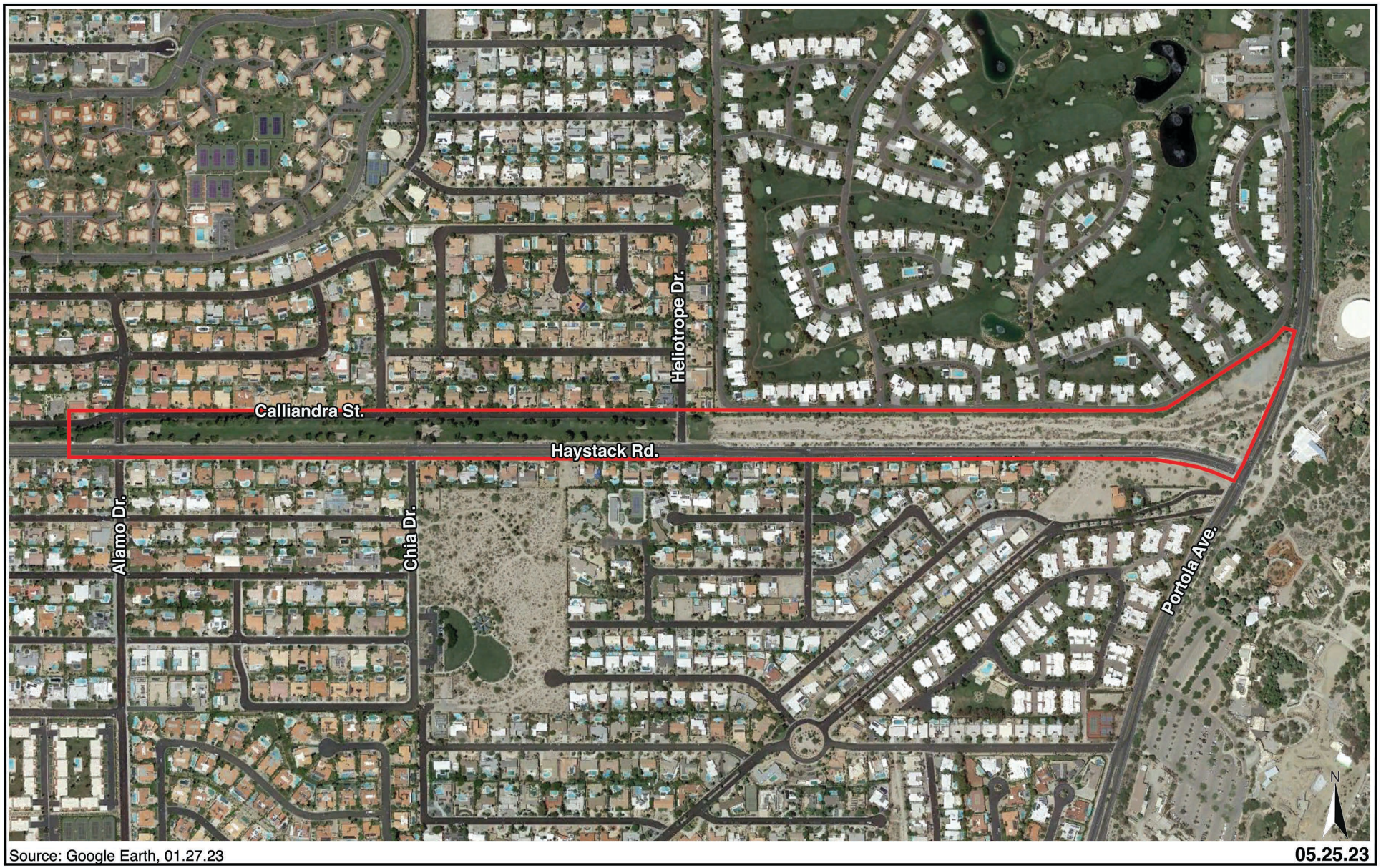
Haystack Channel Improvement Project Initial Study
Project Location Map
Palm Desert, California

Exhibit
3



Source: Google Earth, 01.27.23

05.25.23

TERRA NOVA®
PLANNING & RESEARCH, INC.

Haystack Channel Improvement Project Initial Study
Project Site
Palm Desert, California

Exhibit
4

I. AESTHETICS **Except as provided in Public Resources Code Section 21099, would the project:**	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Have a substantial adverse effect on a scenic vista?			✓	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			✓	
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			✓	
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?				✓

Sources: City of Palm Desert General Plan Update & Draft Environmental Impact Report, 2016 (SCH 2015081020); Palm Desert Municipal Code; Project development plan, ERSC, 2023; Terra Nova site visit and survey, 5.4.23.

Setting

The Project site is located in south Palm Desert, east of State Highway 74 and immediately north of Haystack Road in the central part of the Coachella Valley. The area is comprised of sloping terrain associated with expansive alluvial fans that emanate from the Santa Rosa Mountains to the south. The existing channel is a linear depression surrounded by lands that are at-grade, including Haystack Road to the south and a residential subdivision and streets to the north. The channel is in a turf and landscaping condition west of Heliotrope Drive and transitions to a dirt, soft-bottom channel east of Heliotrope and so extending to the Portola Drive culvert at the east end of the Project. Roads crossing the channel include decorative rail and fieldstone guard rails. Overhead utilities in the Project area are limited to two power/communications poles located on the east side of Heliotrope and trending north-south.

Both sides of the subject channel reaches are vegetated with both decorative trees and shrubs and native and other drought tolerant vegetation east of Heliotrope Drive. A pedestrian walkway extends the length of the Project immediately north of Haystack Road and south of the channel. The eastern portion of the project area also includes an enhanced, naturalized area with native fan palms and walkways. Privacy walls and landscaping separate the subject channel from adjoining residential development to the north.

Discussion of Impacts

a) **Less Than Significant Impact.** The proposed Project will not create any new or increased impacts on local or area-wide scenic resources. The Project will remediate existing channel deficiencies by installing new sub-grade drains and percolation boxes in the channel segment located west of Heliotrope Drive. There will be very limited disturbance to existing channel landscaping in this segment. Disturbance in this segment will involve the replacement of the existing drain system with four underground infiltrator pipes, as well as replacement of damaged irrigation. In addition to access points, disturbance associated with these improvements will primarily occur along the center of the channel, and existing trees and shrubs will be avoided to the greatest extent practicable. Once improvements are installed, conditions in these two-thirds of the channel project will be returned to essentially the same as existing conditions.

Along the Project channel segment located east of heliotrope Drive and extending to Portola Drive culverts, the channel will be restored to its original trapezoidal cross section. Side slopes will be lined with boulders (riprap) that will be visible along the side slopes of this channel reach and will extend to Portola Avenue. The riprap will not be grouted (will be dry laid) so vegetation will be able to emerge in at least some locations. This channel reach will have a soft (sandy) bottom where revegetation will occur and will within one or two years resemble the existing vegetation. Just east of Heliotrope Drive, a new energy dissipater comprised of riprap boulders will be constructed, replacing the existing eroded dissipater. Visually, the Project site will appear much the same and make the same very limited impact on area scenic resources. Therefore, Project impacts to scenic vistas would be less than significant.

b) **Less Than Significant Impact.** The Project site is located 1,850± feet east of State Highway 74, which is a designated scenic highway. The Project site is not visible to travelers on Highway 74 and therefore the project will have no effect on Highway 74 viewsheds. Neither will the project impact any historic structures located along this highway. As noted, existing trees will be largely preserved and impacts to existing landscaping west of Heliotrope Drive will be limited and less than significant. Channel vegetation east of Heliotrope Drive will be impacted by reshaping of the channel and the installation of side slope riprap erosion protection. The channel bottom will remain sandy and unlined, and both the channel bottom and ungrouted side slope riprap will naturally revegetate. No rock outcroppings or other natural scenic elements will be impacted. Therefore, Project impacts will be less than significant.

c) **Less Than Significant Impact.** The Project site is in an urban setting. The channel restoration and improvements will not significantly change the visual character of the site or vicinity, restoring the existing channel largely to its original condition with the inclusion of new riprap slope lining on the eastern channel segment. The channel will appear much as it does today when viewed from publicly accessible viewpoints. The Project is consistent with City policies regarding preservation of scenic resources. Therefore, the Project will have less than significant impacts to applicable regulations that address scenic quality.

d) **No Impact.** The Project does not include any new lighting, although on-site construction and staging area lighting may be required during the construction phase. No subsequent permanent lighting is planned. Therefore, the Project will have no impacts associated with increased light and glare.

Mitigation Measures: None required

Monitoring and Reporting: None required

II. AGRICULTURE RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?				✓
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				✓
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?				✓

Sources: City of Palm Desert General Plan Update & University Neighborhood Specific Plan Draft Environmental Impact Report, 2016; Palm Desert Municipal Code; California Important Farmland Finder, California Department of Conservation, https://maps.conservation.ca.gov.DLRP/CIFF/ (accessed March 2023).

Setting

Agriculture makes up a significant portion of the economy in the Coachella Valley. Palm Desert is predominantly built out with existing urban uses, and does not contain any land designated or zoned for agricultural uses. There are also no Williamson Act contracted lands or forestland within the City. Neither the General Plan nor the Zoning Ordinance include forestry or forest production designations.

Discussion of Impacts

a-e) **No Impact.** The Project proposes the rehabilitation of the Haystack Channel, which has been in place for several decades. The site is in a developed residential area in Palm Desert. It is not on or in proximity to any farm or forest lands. The California Important Farmland Finder, prepared for the Farmland Mapping and Monitoring Program of the Department of Conservation classifies the Project site and the surrounding area as Urban and Built-Up Land. The nearest designated important farmlands are on a 19.5-acre site in the City of Indian Wells, almost two miles northeast of the subject site.

Prime Farmland: The Project site is not located on or near Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The subject property is not located on or near any properties zoned or designated for agricultural use. The proposed Project would have not result in the conversion of any farmland or land designated as farmland to non-agricultural uses. There would be no impact.

Williamson Act: The subject property is not considered an agricultural preserve and it is not under a Williamson Act contract. The site is zoned for Open Space, and surrounding sites are zones for urban uses. There will be no conflict with existing zoning for agricultural use, or a Williamson Act contract. No impact would occur.

Forest Land: The Project site is located in an urbanized area on the desert floor. It is zoned as for Open Space, and is surrounded by residential developments. The site does not contain forest land, timberland, or timberland zoned for timberland production. The Project would not result in the rezoning or forest land or timberland as defined by the Public Resources Code §12220(g) or by Government code §51104(g). No impact would occur.

Mitigation Measures: None required

Monitoring and Reporting: None required

III. AIR QUALITY Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. **Would the project:**	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Conflict with or obstruct implementation of the applicable air quality plan?				✓
b) Result in a cumulatively 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			✓	
c) Expose sensitive receptors to substantial pollutant concentrations?			✓	
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?			✓	

Sources: SCAQMD AQMP, 2022; "Final Localized Significance Threshold Methodology," prepared by the South Coast Air Quality Management District, Revised, July 2008; "2003 Coachella Valley PM_{10} State Implementation Plan," August 1, 2003; CalEEMod Version 2020.4.0; Project materials.

Setting

The Coachella Valley is in the Salton Sea Air Basin (SSAB), which includes part of Riverside County and all of Imperial County. The SSAB is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). All development within the SSAB is subject to the 2022 SCAQMD Air Quality Management Plan (AQMP), and the Coachella Valley region is subject to the 2003 Coachella Valley PM_{10} State Implementation Plan (CV PM_{10} SIP). SCAQMD operates and maintains regional air quality monitoring stations at numerous locations throughout its jurisdiction. The Project site is within Source Receptor Area (SRA) 30, which includes monitoring stations in Palm Springs, Indio, and Mecca.

Criteria air pollutants are contaminants for which state and federal air quality standards (as shown in Table 1) have been established. The SSAB exceeds state and federal standards for fugitive dust (PM_{10}) and ozone (O_3), and is in attainment for $PM_{2.5}$, except the City of Calexico. Ambient air quality in the SSAB, including the Project site, does not exceed state and federal standards for carbon monoxide, nitrogen dioxides, sulfur dioxide, lead, sulfates, hydrogen sulfide, or vinyl chloride.

Table 1
State and National Ambient Air Quality Standards

Pollutant	**Averaging Time**	**California Standards**	**National Standards**	
		Concentrations[1]	**Primary**	**Secondary**
Ozone (O_3)	1 Hour	0.09 ppm	--	
	8 Hour	0.070 ppm	0.070 ppm	
Particulate Matter (PM_{10})	24 Hour	50 µg/m^3	150 µg/m^3	
	AAM[2]	20 µg/m^3	--	

Fine Particulate Matter ($PM_{2.5}$)	24 Hour	--	35 µg/m^3	
	AAM	12 µg/m^3	12.0 µg/m^3	15 µg/m^3
Carbon Monoxide	1 Hour	20 ppm	35 ppm	--
	8 Hour	9.0 ppm	9 ppm	--
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm	100 ppb	--
	AAM	0.030 ppm	0.053 ppm	
Sulfur Dioxide (SO_2)	1 Hour	0.25 ppm	75 ppb	--
	3 Hour	--	--	0.5 ppm
	24 Hour	0.04 ppm	0.14 ppm	--
	AAM	--	0.030 ppm	--
Lead	30 Day Average	1.5 µg/m^3	--	--
	Calendar Quarter	--	1.5 µg/m^3	
	Rolling 3-Month Average	--	0.15 µg/m^3	
Visibility Reducing Particles	8 Hour	--	No National Standards	
Sulfates	24 Hour	25 µg/m^3		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m^3)		

[1] *µg/m^3 = micrograms per cubic* meter of air
[2] *AAM = Annual Arithmetic Mean*
Source: California Air Resources Board, Ambient Air Quality Standards (May 2016)
https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf (accessed July 2023).

Buildout of the proposed Project will result in air quality impacts during construction and operation. The California Emissions Estimator Model (CalEEMod) Version 2020.4.0 was used to project air quality emissions that will be generated by the Project (Appendix A).

Discussion of Impacts

a) **No Impact**. The Project site is within the Salton Sea Air Basin (SSAB) and will be subject to SCAQMD's 2022 AQMP and the 2003 Coachella Valley PM_{10} SIP. These comprehensive plans establish control strategies and guidance on regional emission reductions for air pollutants.

A project is considered to be in conformity with adopted air quality plans if it adheres to the requirements of the SCAQMD Rule Book, AQMP, and adopted and forthcoming control measures, and is consistent with growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). The proposed channel rehabilitation project will maintain the existing use of the channel site and would not induce any population growth. Therefore, it would be consistent with the growth forecasts upon which SCAQMD's air quality planning is based.

The construction of the Project channel improvements would be conducted in accordance with all applicable air quality management plans to ensure impacts to air quality are reduced to the greatest extent possible. Standard dust control measures will be implemented to minimize the emissions of fugitive dust. The proposed Project would be implemented in accordance with all applicable rules and regulations contained in these plans to meet the applicable air quality standards. Overall, construction of the proposed Project would not prevent SCAQMD from implementing actions set forth in the applicable air quality plans. There will be no impacts.

b) **Less Than Significant Impact**. A project is considered to have significant impacts if there is a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. As previously stated, the SSAB is currently a non-attainment area for PM_{10} and ozone. Therefore, if the Project's construction and/or operational emissions exceed SCAQMD thresholds for PM_{10} and ozone precursors, which include carbon monoxide (CO), nitrous oxides (NO_x), and volatile/reactive organic compounds/gases (VOC or ROG), then impacts would be cumulatively considerable and significant.

The California Emissions Estimator Model (CalEEMod) Version 2020.4.0 was used to project air quality emissions that will be generated by the proposed Project (Appendix A). The proposed channel rehabilitation would release criteria air pollutants during construction, from activities including earthwork and hauling. Once the proposed channel rehabilitation is complete, the Project would result in very limited pollutant emissions during operations and potential future maintenance.

Construction Emissions

Construction associated with the proposed rehabilitation of the Haystack Channel is expected to take approximately 9 months. The Project portion of the channel is approximately 5,060 feet long. Improvements to the between Alamo Drive and Heliotrope Drive will include the removal of the existing nuisance water drain system, and the replacement of this system with four underground 48-inch diameter infiltration pipe and gravel beds, as well as the installation of underground chambers at each of the four storm drain outlets. The Project will also install underground chambers at each of the four storm drain outlet within the eastern reach of the channel. Damaged irrigation will be removed and replaced. In the portion of the channel east of Heliotrope Drive, the side slopes will be regraded and lined with riprap.

For analysis purposes, it was assumed that construction would involve a disturbed area of 24.18 acres, including 3,500 square feet of concrete. Demolition during Project construction would involve the removal of four 24- by 24-inch concrete catch basins. Material import and export required during construction was estimated based on consultation with the Project engineers, as provided in Table 2, below.

Table 2
Project Construction Material Import/Export Estimates

Import Material Type	**Quantity (cubic yards)**
Rock (un-grouted riprap)	12,400 CY
Drop structure (1/4 ton stone)	200 CY
Concrete	89.75 CY
12-inch HDPE pipe	0.4 CY
Total Imports:	**12,690.15 CY**
Export Material Type	**Quantity (cubic yards)**
Soil	12,357 CY
Existing concrete	2.5 CY
Infiltrator equalizer system	3.2 CY
Total Exports:	**12,362.70 CY**

Based on the above material import and export quantities, it is projected that 1,586 hauling trips of up to 20 miles in length would be required during the grading phase of the Project. Assumptions regarding the equipment used across the demolition, site preparation, grading, and paving phases are based on the equipment types provided in CalEEMod and the equipment used in similar channel projects in the area. The Project's CalEEMod outputs are provided in Appendix A.

Based on these inputs, Table 3 shows the Project's maximum daily construction-related emissions.

Table 3
Maximum Daily Construction-Related Emissions Summary
(pounds per day)

Construction Emissions[1]	CO	NO_x	ROG	SO_x	PM_{10}	$PM_{2.5}$
Daily Maximum	28.77	33.78	3.33	0.07	8.72	5.08
SCAQMD Thresholds	**550.00**	**100.00**	**75.00**	**150.00**	**150.00**	**55.00**
Exceeds?	**No**	**No**	**No**	**No**	**No**	**No**

[1] PM_{10} and $PM_{2.5}$ account for assumed adherence to required dust control measures.
Source: CalEEMod Version 2020.4.0 (output tables provided in Appendix A).

As shown in the table above, SCAQMD daily thresholds for CO, NO_x, ROG, SO_x, PM_{10}, or $PM_{2.5}$ will not be exceeded during any phase of Project construction.

Operational Emissions

Operational emissions are ongoing emissions that would occur over the life of the Project. Operational emissions associated with the proposed Project would be nominal, and would be limited to negligible emissions resulting from the off gassing of materials and potential minor and temporary maintenance activities.

Cumulative Contribution

A significant impact could occur if the Project would make a considerable cumulative contribution to federal or state non-attainment pollutants. The Coachella Valley portion of the SSAB is classified as a "non-attainment" area for PM_{10} and ozone. Cumulative air quality analysis is evaluated on a regional scale (rather than a neighborhood or city scale, for example), given the dispersing nature of pollutant emissions and aggregate impacts from surrounding jurisdictions and air management districts. Any development project or activity resulting in emissions of PM_{10}, ozone, or ozone precursors will contribute, to some degree, to regional non-attainment designations of ozone and PM_{10}.

The SCAQMD does not currently recommend quantified analyses of construction and/or operational emissions from multiple development projects, nor does it provide methodologies or thresholds of significance to be used to assess the significance of cumulative emissions generated by multiple cumulative projects. However, it is recommended that a project's potential contribution to cumulative impacts be assessed utilizing the same significance criteria as those for project-specific impacts. Furthermore, SCAQMD states that if an individual development project generates less than significant construction or operational emissions, then the project would not generate a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment.

As shown in Table 3 above, Project-related PM_{10}, $PM_{2.5}$, CO, NO_x, SO_x and ROG emissions are projected to be well below the SCAQMD thresholds. Therefore, the proposed Project will result in incremental, but not cumulatively considerable impacts on regional PM_{10} or ozone levels.

Summary

As shown above, construction of the Project will result in criteria emissions below the SCAQMD significance thresholds. As previously stated, any operational emissions associated with the Project would be nominal. Neither construction nor operational emissions would violate any air quality standard or contribute substantially to an existing or projected air quality violation. Impacts related to construction and operation will be less than significant and are not cumulatively considerable.

c) **Less Than Significant Impact.** Localized Significance Thresholds (LSTs) can be used to determine whether a project may generate significant adverse localized air quality impacts in relation to the nearest exposed sensitive receptors. Sensitive receptor land uses include, but are not limited to, schools, churches, residences, hospitals, day care facilities, and elderly care facilities. The nearest sensitive receptors to the Project are the adjacent houses to the north, on Calliandra Street, as well as those on the south side of Haystack Road.

The use of LSTs is voluntary and designed for projects that are less than or equal to 5 acres. The maximum area of disturbance associated with the proposed Project is approximately 24 acres, and construction is expected to occur over the course of nine months. While the total Project area is larger than 5 acres, the maximum area of daily disturbance (for purposes of LST analysis only) is limited to five acres or less per day at any given location. As such, the five-acre look-up table is appropriate under the SCAQMD's methodology to screen for potential localized air quality impacts.[1]

The Mass Rate Look-Up tables for LST were used to determine if the Project would have the potential to generate significant adverse localized air quality impacts during construction. The LST for Source Receptors Area (SRA) 30 (Coachella Valley) was used to determine LST emission thresholds. The distance from the emission source and the maximum daily site disturbance also determines emissions thresholds. For analysis purposes, the worst-case scenario of a sensitive receptors being with 25 meters was used and is representative of the distance of the residential properties to the north and south of the Project site. Table 4 shows the results of the LST analysis, based on the construction emissions projected in CalEEMod.

Table 4
Localized Significance Thresholds
25 Meters, 5 Acres
(pounds per day)

	CO	**NO_x**	**PM_{10}**	**$PM_{2.5}$**
Construction Emissions	28.77	33.78	8.72	5.08
LST Threshold	2,292.00	304.00	14.00	8.00
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source of Emission Data: CalEEMod version 2020.4.0 (output tables provided in Appendix A).
Source of LST Threshold: LST Mass Rate Look-up Table, 25 meters, 5 acres, SCAQMD

As shown in the above table, construction emissions associated with the proposed channel rehabilitation project would not exceed the SCAQMD LST threshold for CO, NO_x, PM_{10}, or $PM_{2.5}$. Impacts to sensitive receptors will therefore be less than significant.

Health Impacts

As discussed above, under significance threshold (b), construction and operation of the proposed Project will result in criteria emissions that are below the SCAQMD significance thresholds, and neither would violate any air quality standard or contribute substantially to an existing or projected air quality violation.

It is not scientifically possible to calculate the degree to which exposure to various levels of criteria pollutant emissions will impact an individual's health. There are several factors that make predicting a Project-specific numerical impact difficult:

- Not all individuals will be affected equally due to medical history. Some may have medical pre-dispositions, and diet and exercise levels tend to vary across a population.

[1] South Coast Air Quality Management District, "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds."

- Due to the dispersing nature of pollutants, it is difficult to locate and identify which group of individuals will be impacted, either directly or indirectly.
- There are currently no approved methodologies or studies to base assumptions on, such as baseline health levels or emission level-to-health risk ratios.

Due to these limitations, the extent to which the Project poses a health risk is uncertain but unavoidable. However, construction of the proposed Project will result in limited and temporary criteria pollutant emissions below the SCAQMD thresholds, as shown in Table 3 and 4, and emissions during operation of the Project would be nominal. Emissions during construction or operation of the Project would not violate any air quality standards or contribute substantially to an existing air quality violation. Therefore, it is anticipated that the impacts and that health effects associated with criteria pollutant emissions will overall be less than significant.

d) **Less Than Significant Impact.** During buildout, the Project has the potential to result in short-term odors associated with excavation and grading, pouring of concrete, and other construction activities. However, any such odors would be short-term and quickly dispersed below detectable levels as distance from the construction site increases. Project buildout is estimated to occur over a 9-month period, and construction odors would be generated across various time periods and locations throughout the site such that odors would not be concentrated in one area for an extended duration. During long-term operation, the proposed drainage channel is not expected to generate any odors. Therefore, impacts from objectionable odors will be less than significant.

CEQA-Plus: Supplemental conformity analysis

The State and National Ambient Air Quality Standards are shown in Table 1, above.

Federal Air Conformity Rule

As previously discussed, the two primary pollutants of concern in the Coachella Valley are ozone (O_3) and particulate matter (PM_{10}). The Coachella Valley is considered "severe-15 nonattainment" for 8-Hour Ozone, and "serious-nonattainment" for the PM_{10} National Ambient Air Quality Standard under CAA Section 107.

The Federal Air Conformity Rule de minimis thresholds limit construction and operational emissions of criteria pollutants identified in the Federal Clean Air Act to 70 tons per year for PM_{10} and 25 tons per year for ozone. If the per year threshold were exceeded, the project proponent would be required to identify mitigation measures to reduce impacts to air quality. As shown in Table 5, the annual construction emissions resulting from the Project would not exceed the Federal Conformity Rule de minimis thresholds.

Table 5
Annual Construction-Related Emissions Summary
(tons per year)

Construction Emissions[1]	**CO**	**NO_x**	**ROG**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Construction year: 2024	2.24	2.79	0.28	0.006	0.39	0.24
Federal Thresholds	100	25	25	100	70	100
Exceeds?	**No**	**No**	**No**	**No**	**No**	**No**

[1] PM_{10} and $PM_{2.5}$ account for assumed adherence to required dust control measures.
Source: CalEEMod Version 2020.4.0 (output tables provided in Appendix A).

As previously stated, the Project's operational emissions would be nominal, and would be limited to negligible emissions resulting from the off gassing of materials and potential minor and temporary maintenance activities. It can therefore be concluded that operational emissions would not exceed the Federal Air Conformity Rule thresholds.

Overall, Section III (Air Quality) of this assessment demonstrates that construction-related and operational criteria pollutant emissions are anticipated to be well below SCAQMD and federal thresholds. In addition, BMPs and other standard measures will further reduce impacts to air quality. Therefore, the Project will not exceed applicable annual Federal Air Conformity Rule de minimis thresholds.

Mitigation Measures: None required

Monitoring and Reporting: None required

IV. BIOLOGICAL RESOURCES **Would the project:**	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
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 Service?		✓		
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 US Fish and Wildlife Service?				✓
c) Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				✓
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 use of native wildlife nursery sites?		✓		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				✓
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				✓

Sources: Biological Resources Assessment & Coachella Valley Multiple Species Habitat Conservation Plan Compliance Report, Haystack Channel Improvement Project, WSP USA Environment and Infrastructure, Inc., April 28, 2023; Coachella Valley Multiple Species Habitat Conservation Plan, September 2008, as amended.

Setting

The Coachella Valley is located within the Sonoran Desert, a subdivision of the Colorado Desert. The Sonoran Desert contains a wide range of biological resources that are highly specialized and endemic to the region. The expansive alluvial fan areas of the valley, in which the Project site is located, are composed of gravelly and sandy soils of the Carsitas and Myoma series typical of alluvial fans, fan aprons, valley fills, and dissected remnants of alluvial fans and in drainageways.

The Project area is part of a west to east trending stormwater channel that extends east from Highway 74 to Portola Avenue and intercepts storm flows originating from the south. The area generally slopes from southwest to northeast and the elevation of the Project site ranges from approximately 317 to 334 feet above mean sea level. The subject portion of the channel extends from just west of Alamo Drive eastward to and inclusive of the reinforced concrete culverts that pass beneath Portola Avenue (see Channel Improvement Plans in Appendix D).

Coachella Valley MSHCP

The City and Project site are within the boundaries of the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP), a comprehensive regional plan encompassing approximately 1.1 million acres in the Coachella Valley that addresses the conservation needs of 27 native flora and fauna species and 27 natural vegetation communities. The City of Palm Desert is a CVMSHCP Permittee and subject to its provisions. The Project site is not located within or adjacent to any of the Conservation Areas established by the CVMSHCP. The nearest MSHCP Conservation Area is the Santa Rosa and San Jacinto Mountains CA the nearest portion of which is located approximately one mile to the east and is associated with the foothills of the Santa Rosa Mountains.

Project Site Conditions

A biological resources assessment was prepared for the Project by Senior Wildlife Biologist, Dale Hameister, who also conducted a streambed jurisdictional delineation for the Project. Field surveys were conducted on March 8, 2023 under fair and sunny conditions (see Appendix B). The Project site is surrounded by development, primarily residential development to the north and south. The eastern edge of the channel is adjacent the Living Desert Zoo and Gardens located on the east side of Portola Avenue. The subject drainage passes beneath Portola Avenue and continues through the Vintage Club residential development to the east.

The western section of the Project area contains an engineered swale which is covered in maintained turf grass and lined by landscaping trees. The swale has some concrete structures which collect nuisance waters from irrigation runoff and stormwater. The section of the channel east of Heliotrope Drive is an engineered sandy, natural bottom channel with a mix of native and non-native vegetation.

Site Vegetation

The western portion of the Project channel segment, generally between Alamo Drive and Heliotrope Drive, is comprised of a vegetated swale fully planted in turf grass with trees and shrubs planted along the channel slopes. In addition to Bermuda and annual bluegrass, existing vegetation includes Kurrajong (*Brachychiton populneus*), unknown pine (*Pinus sp.),* African sumac (*Searsia lancea*), olive (*Olea europaea*), Lantana (*Lantana camara*), and Spanish bayonet. Vegetation bordering the project site includes some native desert species not found in the immediate vicinity of the project site, including chuparosa (*Justicia californica*), fairy duster (*Calliandra eriophylla*), California barrel cactus (*Ferocactus cylindraceus*), Mexican palo verde (*Parkinsonia aculeata*), jojoba (*Simmondsia chinensis*), California fan palm (*Washingtonia filifera*), and Indian rice grass (*Stipa hymenoides*).

East of Heliotrope Drive the engineered channel segment currently exists as a sandy bottomed and side slope channel with mostly native vegetation and can be classified as a smoke tree wash dominated by smoke tree (*Psorothamnus spinosus*). Other native scrubs included burrobrush (Ambrosia salsola), sweetbush (Bebbia juncea), brittlebush (Encelia farinosa), and creosote bush (Larrea tridentata). Non-native species include sow thistle (Sonchus asper), Sahara mustard (Brassica tournefortii), London rocket (Sisymbrium irio), castor bean (Ricinus communis), common plantain (Plantago major), and old han schismus (Schismus barbatus). There is a small area of Fremont cottonwood (Populus fremontii) with an understory of umbrella plant (Cyperus involucratus) east of Portola Avenue, however, this area is outside of the project area. A total of 31 plant species were identified across the Project site during the assessment, including a mixture of native and non-native landscaping and weedy species, (54% were nonnative species). Also see Appendix B of this IS.

Special Status Species

Some plant and/or animal taxa are listed as threatened or endangered by the US Fish and Wildlife Service (USFWS) or by the California Department of Fish & Wildlife (CDFW) and are protected by the federal and state Endangered Species Acts (ESAs). Other species have also been identified with special status, and are managed as sensitive by the USFWS, CDFW, or by private conservation organizations, including the California Native Plant Society (CNPS), but have not been formally listed as threatened or endangered. Impacts to such species can still be considered significant under the CEQA, if not avoided, minimized and/or mitigated by specific project design and implementation. The literature review and field visit resulted in a list of 63 special status biological resources which occur or potentially occur on the Project site and/or vicinity (3-mile radius) of the project site. Tables 1-3 of the Project biological assessment provide a summary of these resources, their current conservation status, habitat associations and potential to occur on the Project site. No species listed as state or federal listed as threatened or endangered were observed on the site or vicinity.

Burrowing Owl

No burrows suitable for burrowing owl use were observed on or adjacent to the project site. Where accessible, adjacent vacant lands were surveyed within 500 feet of the site. No burrowing owls, their sign, or burrows capable of supporting owls were observed in this buffer area. The burrowing owl is not listed as threatened or endangered by the USFWS or CDFW. It is, however, managed as a Bird of Conservation Concern (BCC) by the USFWS and designated as a SSC by the CDFW. It is also protected from take by the MBTA and California Fish and Game Code. The burrowing owl is a covered species under the CVMSHCP; however, the federal permit for the CVMSHCP does not allow take of this species under the MBTA. No burrowing owls, owl sign, or suitable burrows were observed during the survey. Considering the isolation of the project site and the extent of surrounding residential development, burrowing owl are not expected to nest or forage at the project site.

Other Sensitive Species

Seven sensitive species not covered by the Coachella Valley MSHCP or the USFWS were considered to have at least some potential to occur on the Project site, although the potential was determined to be low to very low. These include Prairie falcon and golden eagle with a "rare" to low probability to forage over the site. Slender cotton heads (*Emakalims denudata var. gracilis*) were not observed during the survey are expected to have a low probability of growing on this site. None of the plant species are listed as threatened or endangered and are generally not expected to occur on the site considering the past history of disturbance, including grubbing and use of soil binders.

The loggerhead shrike (*Lanius ludovicianus*) is designated as a California Species of Special Concern (SSC) by the CDFW, has a moderate potential to utilize the site. This species is not expected to nest on the site due level of adjacent development. The USFWS IPAC report generated for this project lists six sensitive wildlife species and one plant as having potential to be affected by development of this project.

Site surveys also included habitat assessment for the occurrence of bats, including the western yellow bat (*Lasiurus xanthinus*), pocketed free-tail bat (*Nyctinomops femorosaccus*), and big free-tailed bat (*Nyctinomops macrotis*). No viable habitat was identified for the pocketed or big free-tail bats, and they were determined to be absent from the Project area. Viable on-site and nearby habitat for bats identified by the Project biologists is limited to 14± planted California fan palms that are a part of a small pocket park created at the northwest corner of Portola Avenue and Haystack Road. These trees and surrounding ground were surveyed to detect signs of use by bats; neither bats nor bat sign were identified during the site survey.[2] [3]

[2] Personal communication, Dale Hameister, Field Biologist/Principal Investigator, WSP. October 24, 2023.

[3] Haystack Channel Improvements Project – Biological Resources Assessment & Coachella Valley Multiple Species Habitat Conservation Plan Compliance, prepared by WSP. April 2023.

As discussed in the Project biological assessment, only Coachella Valley milk-vetch could be expected (low probability) to occur on this site. Monarch butterflies require milkweeds for larval development and other flowering plants for adult nectar sources. No milkweed were observed on the site, and flowering plants were mainly limited to a sparse growth along some of the street edges. Monarch butterflies are not expected to utilize this site apart from the occasional transient individual passing through. There is no habitat present for desert tortoise, Coachella Valley fringe-toed lizard, least Bell's vireo, southwestern willow flycatcher, or Peninsular bighorn sheep on the Project site.

Discussion of Impacts

a) **Less than Significant with Mitigation.** A comprehensive resource assessment was conducted on the Project site and adjoining lands. The assessment identified common and sensitive resources occurring or potentially occurring, their current conservation status and habitat associations. No species listed as state or federal listed as threatened or endangered were observed on the site or vicinity, nor are any listed species expected to occur there. Historic aerial photos indicate that the site was cleared of vegetation sometime in 2018. The Project site is a narrow, linear feature surrounded by paved roads on the east, west, and south and by development to the north, south, and west.

The local neighborhood street, Haystack Road, bounds the Project site on the south and carries relatively low to moderate traffic volumes. Lands beyond Haystack Road are comprised of single-family neighborhoods. There are no other vacant lands in the Project vicinity that are available for development. As noted in the above Setting discussion, no species listed as state or federal listed as threatened or endangered were observed on the site or vicinity nor are listed species expected to occur there.

Of the seven sensitive species evaluated and not covered by the Coachella Valley MSHCP or the USFWS, the Prairie falcon and golden eagle have a "rare" to low probability to forage over the site. Loggerhead shrike (*Lanius ludovicianus*) was determined to have a moderate potential to utilize the site.

Burrowing owl (*Athene cunicularia*) were determined to not occur on site or on adjoining lands, nor does the Project site provide suitable foraging or nesting habitat, including burrows or surrogate (small mammal) burrows. As noted, the project is adjacent to a built out residential neighborhood and surrounded by paved streets. Nonetheless, it is recommended that if construction is initiated during the nesting season (February 1 through August 31) and pre-construction nesting bird survey should be conducted.

Of the sensitive plants, only Coachella Valley milk-vetch could be expected (low probability) to occur on this site. Slender cottonheads (*Nemacaulis denudata var. gracilis*) were not observed during the survey are expected to have a low probability of growing on this site. Sensitive plant species are generally not expected to occur on the site considering the past history of disturbance, including grubbing and use of soil binders.

While the Project has limited potential to harbor or provide habitat for sensitive species, based on the site and resource assessment, the Project has a less than significant potential to impact, either directly or through habitat modifications, species identified as candidate, sensitive, or special status species. This less than significant potential will be further reduced by application of mitigation measure BIO-1, below with regard to adherence to the Migratory Bird Treaty Act (MBTA) and pre-construction nesting bird surveys.

b, c) **No Impact.** The vegetation community on the subject site is identified as turf grass in the western portion of the project and as desert dry wash, including smoke tree in that portion east of Heliotrope Drive. Fremont cottonwoods are located along the drainage east of Portola Drive and beyond the Project. The site survey did not identify any springs, seeps, or natural bodies of water or drainages on the Project site. Review of the National Wetlands Inventory (NWI) indicated that no known blue-line streams (drainages) traverse the subject property. The Project site does not contain any streams, riparian habitat, marshes, protected wetlands, vernal pools, or sensitive natural communities protected by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. No impact would occur.

d) **Less than Significant With Mitigation.** The Project site and all lands surrounding the Project site are developed. The subject channel begins just east of State Highway 74, a substantial barrier to wildlife movement. East of the Project site the subject drainage continues along and then within the developed portions of the Vintage Club golf course. No wildlife corridors or biological linkages are mapped, known, or expected on the Project site. Although it is used by several common species and may provide marginal habitat for migratory birds, the Project site is not identified as a nursery site. As described above, the site may offer limited nesting sites for birds protected by the Migratory Bird Treaty Act (MBTA). Compliance with the MBTA, provided in Mitigation Measure BIO-1, will ensure impacts to sensitive species are reduced to less than significant levels.

e) **No Impact.** The proposed Project will not conflict with any local ordinances protecting biological species. The Project site does not lie in proximity of a Conservation Area as designated by the Coachella Valley MSHCP. The Project will not conflict with the goals and objectives of the MSHCP or any other local policy or ordinance protecting biological resources.

f) **No Impact.** The subject property is within the boundaries of the CVMSHCP, and the City of Palm Desert is a Permittee to the CVMSHCP. The Project site is not located within or adjacent to any of the Conservation Areas (CA) established by the CVMSHCP. The nearest MSHCP Conservation Area is the Santa Rosa and San Jacinto Mountains CA the nearest portion of which is located approximately one mile to the east and is associated with the foothills of the Santa Rosa Mountains. The Project channel was constructed prior to 1996 and is an improvement project. Therefore, the Project proponent will not be required to pay the MSHCP's local development mitigation fee. The Project will not conflict with this or any other habitat conservation plan or natural community conservation plan. No impact will occur.

CEQA Plus: Supplemental Analysis

Federally Listed, Endangered, or Threatened Species
As described in a, above, biological resources surveys were conducted on the project site in March of 2023. The biological resource assessment conducted for this Project has determined that no adverse effects will occur to federally listed Endangered or Threatened species, proposed Endangered or Threatened species, or to state-designated listed or sensitive species.

Federally Designated Critical Habitat
The project site does not contain any federally designated critical habitat and, therefore, the subject project will not result in impacts to critical habitat.

Wetlands
As described above, the Project site does not contain any wetlands, marshes, vernal pools, or coastal or other riparian habitat. No impacts to wetlands will occur.

Magnuson-Stevens Fishery Conservation and Management Act
The project site does not contain, and is not located in proximity to, U.S. federal waters where marine fishery management is occurring. No impacts will occur.

Mitigation Measures:

BIO-1 Migratory Bird Treaty Act
If ground disturbance or tree or plant removal is proposed between February 1st and August 31st, a qualified avian biologist shall conduct a nesting bird survey within three (3) days of initiation of grading onsite, focusing on MBTA covered species, including burrowing owl. Surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologists will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are reported, then species-specific measures shall be prepared. At a minimum, grading in the vicinity

of a nest shall be postponed until the young birds have fledged. For construction that occurs between September 1st and January 31st, no pre-construction nesting bird survey is required. In the event active nests are found, exclusionary fencing shall be placed around the nests until such time as nestlings have fledged. Avoidance buffers shall be 100 to 300 feet from the nests of unlisted songbirds, and 500 feet from the nests of birds-of-prey and listed species. If nests are detected, a smaller or larger buffer may be determined by the qualified avian biologist.

BIO-2 Burrowing Owl Habitat Assessment
No less than 60 days prior to the start of Project-related activities, a burrowing owl habitat assessment shall again be conducted by a qualified avian biologist and in conformance with Appendix C of the CDFW 2012 "Staff Report on Burrowing Owl Mitigation". If the assessment identifies suitable burrowing owl habitat, then focused burrowing owl surveys shall be conducted by a qualified avian biologist in conformance with CDFW protocol. If burrowing owls are detected during focused owl surveys a burrowing owl management plan shall be prepared and submitted to CDFW for approval prior to implementation and commencement of Project activities.

BIO-3 Bats
While not previously detected, the potential exists for Project area vegetation, including desert fan palms located in the eastern portion of the project, to provide habitat for the western yellow bat. Therefore, if Project commencement occurs either between April and June or between November and January, a bat survey shall be conducted by a qualified bat biologist during favorable weather conditions. An appropriate time of day (before sunrise or at dusk). If occupied sites are identified in the work area (or within 500 feet if a maternity roost), an appropriate buffer shall be established, including a minimum of a 500-foot buffer around identified maternity roosting sites. If bat presence is established, Project construction shall not occur between 30 minutes before sunset or 30 minutes after sunrise.

BIO-4 Post-Construction Landscaping
For that portion of the Project extending east from Heliotrope Drive to Portola Drive, if the reintroduction of landscaping is planned, it should be comprised of appropriate native and/or non-native, non-invasive drought tolerant vegetation. The Project landscape plans shall conform with the recommended and prohibited plant list found in the Coachella Valley MSHCP.

Monitoring and Reporting:

BIO-A If a nesting bird survey is required, the Project biologist shall provide the City with a letter report of findings regarding the occurrence of nesting birds and any prescribed exclusionary fencing and monitoring. The report shall be attached to the grading permit for the Project.
Responsible Parties: Project Biologist, City Project Manager
Schedule: If required, prior to issuance of any permits that result in ground disturbance

BIO-B If a burrowing owl habitat assessment survey is required, the Project biologist shall provide the City with a letter report of findings regarding the occurrence of burrowing owl and shall prepare and implement focused burrowing owl surveys. If burrowing owl are detected and occupied burrows identified, avoidance, minimization and mitigation shall be implemented in consultation with CDFW.
Responsible Parties: Project Biologist, City Project Manager
Schedule: If required, prior to issuance of any permits that result in ground disturbance

BIO-C If a bat survey is required, the Project biologist shall provide the City with a letter report of findings regarding the occurrence of bats and shall establish appropriate buffers.
Responsible Parties: Project Biologist, City Project Manager
Schedule: If required, prior to issuance of any permits that result in ground disturbance

V. CULTURAL RESOURCES Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?			✓	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		✓		
c) Disturb any human remains, including those interred outside of formal cemeteries?			✓	

Sources: Identification and Evaluation of Historic Properties, Haystack Channel Rehabilitation Project, CRM TECH, July 16, 2023; City of Palm Desert Draft EIR Technical Background Report, August 27, 2015.

Setting

The Haystack Channel is in a residential neighborhood in the City of Palm Desert, within the Coachella Valley. The Coachella Valley has historically been a center for Native American settlement. As early as the Paleoindian period (ca. 8,000 to 10,000-12,000 years ago), small, mobile groups of hunters and gatherers are thought to have inhabited the area. Though the Coachella Valley is now an arid region, a series of lakes referred to as Lake Cahuilla covered much of the area throughout the Holocene period. During its presence, the shores of Holocene Lake Cahuilla attracted Native American settlements.

By the mid-19th century, U.S. surveyors noted large numbers of villages and rancherias occupied by the Cahuilla people. Anthropologists generally divide the Cahuilla into three groups based on their geographic setting: the Pass Cahuilla of the San Gorgonio Pass-Palm Springs area, the Mountain Cahuilla of the San Jacinto and Santa Rose Mountains and the Cahuilla Valley, and the Desert Cahuilla of the eastern Coachella Valley. Population estimates for the Cahuilla people prior to European contact range from 3,600 to 10,000 people. However, the population was decimated during the 19th century as a result of European diseases such as smallpox. Today, Native Americans of Pass or Desert Cahuilla heritage are mostly affiliated with one or more of the reservations in and near the Coachella Valley, including Agua Caliente, Morongo, Cabazon, Torres Martinez, and Augustine.

The first noted European explorers to travel through the Coachella Valley were led by José Romero, José Maria Estudillo, and Romualdo Pacheco in 18-23-1825. Few non-Native Americans ventured into the desert valley during the early 1800s, except those who traveled along established routes such as the Cocomaricopa Trail. This trail, which travels a similar course to that of present-day State Route 111, was an ancient Native American trading route, "discovered" by William Bradshaw in 1862 and thereafter known as the Bradshaw Trail.

Increasing settlement began in the 1870s with the establishment of Southern Pacific Railroad stations, and spread further with farming following the Homestead Act and the Desert Land Act. The introduction of date palms in the late 1910s and growth of the local tourism industry in the 1920s lead to further growth in the Coachella Valley. Palm Desert was founded in 1945-1946 by three brothers, Randall, Clifford, and Phil Henderson, and was officially incorporated in 1973.

The National Historic Preservation Act

The City of Palm Desert is the proponent and lead agency responsible for the proposed channel rehabilitation project. The following analysis of cultural resources will be subject to the definitions of historical and archaeological resources as provided in §15064.5 of the CEQA guidelines. However, because the Project is subject to oversight by the U.S. Army Corps of Engineers (USACE), it must also comply with Section 106 of the National Historic Preservation Act (NHPA). Pursuant to the NHPA, the Project's impacts to cultural resources would be considered significant if it would have an adverse effect on any "historic properties," as defined by 36 CFR 800.16(1).

The following discussion of impacts is primarily based on the findings of the historical/archaeological resources study conducted for the Project by CRM TECH in July, 2023.

Discussion of Impacts

a) Less Than Significant Impact.

Records Search

A records search was conducted for the Project at the Eastern Information Center (EIC) on June 22 and 23, 2023. According to EIC records, the Project's area of potential effects (APE) had not been surveyed for cultural resources prior to this study, and no cultural resources had been recorded within or adjacent to the APE. While 24 previous studies have been conducted within a one-mile radius of the Project, with findings including seven historic-period sites, none of these resources were found the in immediate vicinity of the APE. None of these previously identified resources have the potential to receive any impact from the Project, and therefore no further considered is required.

Historical Background Research

Historical background research for the Project included review of published literature in local history, as well as historical maps and aerial/satellite photographs of the Project area. Historic sources identified no evidence of any settlement or development activities within the APE during the historic period. Historic sources indicate that the APE has long been set aside for flood control and that the site has been in use for that purpose since at least the early 1980s. The landscaped channel in the western portion of the APE, as well as the channel crossings at Alamo Drive and Heliotrope Drive, were created in tandem with the adjacent residential development in the 1980s-1900s. As modern infrastructure features of standard design and construction, these features do not warrant further consideration.

Field Survey

The field survey of the Project's APE was conducted by CRM TECH staff on May 18, 2023. No potential cultural resources, buildings, structures, objects, sites, features, or artifacts more than 50 years of age were encountered within or adjacent to the APE. A small quantity of concrete debris and other refuse was observed on-site during the survey, however all of the items appear to be modern in origin and do not demonstrate any historical or archaeological value.

Summary of Impacts

The records search, historical background research, and field survey of the APE identified no "historic properties" pursuant to the National Historic Preservation Act, nor did it identify any "historical resources" as defined by California PRC pursuant to CEQA. The proposed Project therefore would not cause a substantial adverse change in the significance of a "historical resource" pursuant to § 15064.5 of the CEQA guidelines or to a "historic property" as defined by 36 CFR 800.16(1), and impacts would be less than significant.

b) Less Than Significant with Mitigation.

Sacred Lands File Search

CRM TECH submitted a request to the Native American Heritage Commission (NAHC) for a search in the Sacred Lands File on February 8, 2023. The results of the Sacred Lands File search were negative. CRM TECH also contacted the nearby Agua Caliente Band of Cahuilla Indians, as well as representatives of ten other tribes in the region, for input: Augustine Band of Cahuilla Mission Indians, Cabazon Band of Mission Indians, Cahuilla Band of Indians, Los Coyotes Band of Cahuilla and Cupeño Indians, Morongo Band of Mission Indians, Quechan Tribe of the Fort Yuma Reservation, Ramona Band of Cahuilla Indians, Santa Rosa Band of Cahuilla Indians, Soboba Band of Luiseño Indians, and the Torres-Martinez Desert Cahuilla Indians.

The Augustine Band requested notification if any resources are discovered during the Project. The Santa Rosa Band had no comments regarding the Project. The Quechan Tribe, Cahuilla Band, and the Soboba Band deferred to Native American groups closer in proximity to the Project site. The Agua Caliente Band, the nearest Native American group to the Project site, requested copies of all cultural resource documentation generated for the Project. The Agua Caliente were also invited to participate in the field survey of the APE, but were unable to attend.

Records Search

As previously stated, the Project's area of potential effects (APE) had not been surveyed for cultural resources prior to this study, and no cultural resources had been recorded within or adjacent to the APE. While previous studies within a one-mile radius of the Project identified nineteen prehistoric archaeological sites and eight isolates, none of these resources were found the in immediate vicinity of the APE. Therefore, none of these previously identified resources have the potential to receive any impact from the Project, and no further considered is required.

Field Survey

As previously stated, the field survey of the APE did not find any potential cultural resources, including buildings, structures, objects, sites, features or artifacts.

Geoarchaeological Analysis

A geoarchaeological analysis was conducted to assess the APE's potential for subsurface cultural deposits from the prehistoric period, and included review of geologic maps, soil surveys, and geotechnical reports for nearby properties. This analysis determined that the vertical APE is relatively low in archaeological sensitivity due to past disturbances, particularly in the landscaped western portion of the Haystack Channel. Likewise, sediments in the unimproved eastern section of the channel have undergone frequent water erosion since at least the early 1980s. Overall, given the disturbance of sediments in the channel, and the lack of known on-site prehistoric resources identified by the records search, the likelihood of encountering prehistorical cultural remains in the APE is low.

Summary of Impacts

Given that the subsurface sediments in the APE are low in archaeological sensitivity and the records searches indicated no prehistoric resources within the APE, archaeological resources are not expected to occur in the subject site. In the event that buried cultural materials are discovered during earth-moving operations associated with the proposed channel rehabilitation, all work in the immediate area should be halted or divert until a qualitied archaeological can evaluate the find (**CUL-1**). With implementation of this mitigation measure, it can be concluded that the Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.

c) **Less Than Significant Impact.** It is not expected that any human remains would be present on the subject site, including those interred outside of formal cemeteries. However, in the event than any unanticipated remains are encountered during Project construction, California law requires that the coroner is contacted, and that all work must stop in the area of the find. The coroner is responsible for determining whether the remains are modern or of cultural significance, and if the latter, must contact the NAHC, who is responsible for identifying the Most Likely Descendant (MLD). The NAHC will then contact the appropriate local tribe, and coordinate the proper disposition of the remains. These standard legal requirements will ensure that construction activities associated with the proposed channel rehabilitation will have a less than significant impact on any unanticipated human remains in the APE.

CEQA-Plus Supplemental Analysis'

If cultural resource sites listed as eligible or potentially eligible for listing in the National Register of Historic Places are located within the proposed Project's geographic area for review the site must be reviewed for cultural resources. Because the project requires or may require oversight by the U.S. Army Corps of Engineers (USACE), it qualifies as a federal "undertaking" and thus also requires compliance with Section 106 of the National Historic Preservation Act (NHPA). The purpose of the cultural and historic resource study was to provide the City and the USACE with the necessary information and analysis to determine whether the project would have an adverse effect on any "historic properties," as defined by 36 CFR 800.16(l), or "historical resources," as defined by California PRC 5020.1(j), that may exist within or adjacent to the APE.

Through the various avenues of research, the project cultural resources assessment did not encounter any "historic properties" or "historical resources" within or adjacent to the APE, and the subsurface sediments within the APE appear to be relatively low in archaeological sensitivity. Based on these findings, and pursuant to 36 CFR 800.4(d)(1) and Calif. PRC §21084.1-2, the consulting archaeologist recommends to the City and the USACE a conclusion that no known "historic properties" or "historical resources" will be affected by the proposed project.

Mitigation Measures:

CUL-1 If buried cultural materials are discovered during grubbing, grading, trenching, excavation, or any other earth-moving activities on the Project site, all work in the area must be halted until a qualified archaeologist can evaluate the nature and significance of the finds.

Monitoring and Reporting:

CUL-A A report of findings shall be filed with the City, including an itemized inventory of the identified cultural materials, and upon completion of the field and laboratory work, an analysis of any recovered artifacts.
Responsible Parties: Project applicant, Project archaeologist, Public Works Department, Development Services Department, City Engineer.
Schedule: Within 30 days of the completion of ground disturbing activities on the Project site.

VI. ENERGY Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			✓	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			✓	

Sources: City of Palm Desert 2013-2033 Strategic Plan; City of Palm Desert Environmental Sustainability Plan (2010); South Coast Air Quality Management District, Rule Book http://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book (accessed June 2023).

Setting

Primary energy sources, the energy contained in raw fuels, include fossil fuels (e.g. oil, coal, and natural gas), nuclear energy, and renewable sources such as wind, solar, geothermal, and hydropower. Secondary sources of energy, which is energy that has been converted or stored, include electricity, heat, biofuels, hydrogen, and gasoline. The City of Palm Desert receives electricity from Southern California Edison (SCE) and natural gas from the Southern California Gas Company (SoCalGas).

The 2010 Palm Desert Environmental Sustainability Plan provides guidelines to encourage the effective management and conservation of location resources. The City's 2013-2033 Strategic Plan includes Energy & Sustainability Priorities, such as reductions in per capita energy consumption and greater adoption of energy efficient building materials.

Discussion of Impacts

a, b) Less than Significant Impact.

The Project would consume energy during the construction phase to operate construction equipment and as a result of the manufacture of construction materials. During construction, the Project would use electricity to power construction trailers, power tools, and to light storage and work areas. Electricity is expected to be provided by Southern California Edison (SCE) on a temporary basis. A limited amount of fossil fuels would also be used for on-site construction equipment, including graders, compactors and jackhammers, for material-hauling trucks, as well as for vehicle trips associated with construction worker commutes.

Construction activities would be subject to SCAQMD rules and regulations, such as source-specific standards for engineers and limits on the duration of construction idling. Construction of the Project must also adhere to state Low Carbon Fuel Standards for construction equipment and heavy-duty vehicle efficiency standards. Compliance with these standards would reduce fuel consumption, maximize fuel efficiency, and ensure that the Project would not conflict with or obstruct state or local plans for energy efficiency. Overall, energy demand during construction of the Project would be temporary and limited.

Once operational, the Project would not result in any significant demand for energy. Potential periodic maintenance of the rehabilitated channel would generate a demand for energy, however energy use associated with these ongoing activities would be negligible.

Overall, given that energy use associated with the Project would mostly end with the completion of the construction to rehabilitate the channel, the consumption would not be wasteful, inefficient, or unnecessary, and impacts would be less than significant. Given that energy demand would be short term and limited, and would comply with state and SCAQMD fuel and equipment regulations it would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Mitigation Measures: None required.

Monitoring and Reporting: None required

VII. GEOLOGY AND SOILS Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Directly or indirectly cause 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? Refer to Division of Mines and Geology Special Publication 42.				✓
ii) Strong seismic ground shaking?			✓	
iii) Seismic related ground failure, including liquefaction?			✓	
iv) Landslides?			✓	
b) Result in substantial soil erosion or the loss of topsoil?			✓	
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?			✓	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			✓	
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?				✓
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				✓

Sources: City of Palm Desert General Plan (2016); City of Palm Desert General Plan Update & University Neighborhood Specific Plan EIR (2016); City of Palm Desert Draft Technical Background Report (2015); United States Department of Agriculture (USDA), Web Soil Survey https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx (accessed June 2023); California Department of Conservation EQ Zapp https://maps.conservation.ca.gov/cgs/EQZApp/app/ (accessed June 2023); South Coast AQMD Rule Book http://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/regulation-iv (accessed June 2023); County of Riverside General Plan Amendment No. 960 Draft EIR No. 521 (February 2015).

Setting

Geology and Soils

Palm Desert is located in the Coachella Valley, within the Salton Trough, a large geographic depression caused by crustal extension associated with movement along the San Andreas Fault system. The Coachella Valley is boarded by mountains, including the Santa Rosa and San Jacinto Mountains to the south and southwest, and the Little San Bernardino Mountains to the north. The Coachella Valley is a seismically active region, due primarily to the strike-slip motion of the San Andrea Fault System. The area has experienced six seismic events with a Richter magnitude of 5.9 or greater in the past 100 years.

The City is mostly underlain by Quaternary deposits including surficial deposits (Qs), landslide deposits (Qls), alluvium (Q), non-marine sandstone, shale, and gravel depsoits (Qpc), Mesozoic mixed rocks consisting of granite, quartz monzonite, granodiorite, and quartz diorite (gr-m), Mesozoic plutonic rocks consisting of granite (grMz); and Paleozoic mixed rocks consisting of sedimentary rocks (m). According to the USDA Web Soil Survey, the Project site is underlain by three soil types: Carsitas gravelly sand (CdC), 0 to 9 percent slopes, Myoma fine sand (MaB), 0 to 5 percent slopes, and Carsitas cobbly sand (ChC), 2 to 9 percent slopes.

Paleontological Resources

Paleontological resources are the remains and/or traces of plant and animal life such as bones, teeth, shells, and wood that are found in geologic deposits. The Palm Desert General Plan (Chapter 6, Policy 10) requires development to avoid paleontological resources whenever possible. If complete avoidance is not possible, development is required to minimize and fully mitigate impacts to the resource. The Project site is located on the middle slope of a large alluvial fan emanating from canyons of the Santa Rosa Mountains to the south. The source bedrock to the south of the underlying alluvial deposits is identified as sensitive for paleontological resources and their occurrence is not expected on site or in the vicinity.

Discussion of Impacts

a.i) **No Impact.** Fault rupture occurs when movement in a deep fault in the earth breaks through to the surface. According to Alquist-Priolo Earthquake Fault Zoning mapping, as provided in Figure 8.1 of the City's General Plan, Palm Desert is not located in an active fault zone. The Project site is located approximately 9 miles from the nearest fault, the San Andreas Fault. Fault-related surface rupture therefore would not occur on the subject site. There will be no impact.

a.ii) **Less than Significant.** The City, including the Project site, is located in a seismically active region, surrounded by three active faults. The closest fault, the San Andreas Fault, is located approximately 9 miles northeast of the subject site. The San Jacinto Fault is approximately 14 miles southwest of the site, and the Elsinore Fault is approximately 34 miles southwest. Given its location in a seismically active region, the Project site could be subject to strong seismic ground shaking. The primary hazard associated with seismic ground shaking is the risk of collapse of buildings or other structures.

The proposed channel improvements will be subject to the California Building Code (CBC). Adherence to applicable structure and seismic requirements will minimize the potential for damage to the channel in the event of strong seismic ground shaking. Once operational, the Project site will not be occupied by any residents or staff, and therefore it would not expose any such individuals to the risk of strong shaking. Overall, provided the Project complies with all applicable seismic and structural design codes, impacts related to seismic ground shaking will be less than significant.

a.iii)

c) **Less than Significant Impact.** Seismically induced liquefaction is the loss of soil strength caused by a sudden increase in pore water pressure after an earthquake, particularly as a result of strong ground shaking. Loose sands and gravels have a higher risk of liquefaction. The subject site is primarily underlain by

Carsitas gravelly sand, Myoma fine sand, and Carsitas cobbly sand. According to the City's General Plan EIR Technical Background Report, the Project site is located in an area with moderate susceptibility to liquefaction.

Seismically induced liquefaction and settlement could result in lateral spreading of banks of the Haystack Channel. However, this potential hazard is not expected to cause potential substantial adverse effects, such as the risk of loss, injury, or death. The proposed Project will not include any structures that would be inhabited and will not create a substantial risk to loss, injury, or death. Impacts will therefore be less than significant.

a.iv) **Less than Significant Impact.** According to Figure 8.2 in the City's General Plan, areas susceptible to landslides are concentrated along the mountainous areas in the southern portion of the City. The subject site is not directly in an area identified as susceptible to landslides, but it is relatively close to at-risk areas – for example, the steep slopes on the west side of State Route 74. However, given that the Project will not result any long-term occupants on the subject site, the proposed channel rehabilitation will not result in substantial adverse effects, including the risk of loss, injury, or death, as a result of landslides. Impacts will be less than significant.

b) **Less than Significant Impact.** The southern portion of Palm Desert, including the subject site, has a high wind erodibility rating according to Figure 8.3 in the General Plan. The Project will result in ground disturbance, including excavation and grading, that would have the potential to increase soil erosion. During construction, standard measures to reduce erosion will be required, including compliance with SCAQMD Rule 403.1 to reduce the generation of fugitive dust during ground disturbing activities.

Given that proposed improvements are intended to reduce impacts related to erosion in the subject channel, it is not expected to exacerbate wind erosion or loss of topsoil long term. An objective of the Haystack Channel Rehabilitation project is to improve function of the channel while accounting for issues including erosion and sedimentation. The proposed channel rehabilitation includes slope stabilization and protection measures by design. Such measures include the installation of rip-rap lining side slopes of part of the channel, as well as the relocation and restoration of in-channel vegetation to the greatest extent practicable. Impacts related to soil erosion and loss of topsoil will therefore be less than significant.

d) **Less than Significant Impact.** Expansive soils are those which expand in volume when an increase in moisture content occurs. The City's General Plan EIR states that expansive clays or soils exhibiting shrink-swell characteristics are not known to underlie Palm Desert. Likewise, according to the USDA Web Soil Survey, the soils underlying the subject site are mainly sand and gravel, which are not prone to expansion. The proposed channel rehabilitation will not be inhabited, will not otherwise include businesses or other occupied structures. It will therefore not create a substantial risk to life or property, and impacts will be less than significant.

e) **No Impact.** The proposed channel rehabilitation project will not include septic tanks or other forms of wastewater disposal. There will be no impact.

f) **No Impact.** According to Figure 4.9.3 in the Riverside County General Plan EIR, the Project area is of low paleontological sensitivity. Given that the Haystack Channel already exists, the site has been disturbed. Paleontological resources are not expected to occur on the subject property, and thus would not be destroyed by the proposed channel rehabilitation. There will be no impact.

Mitigation Measures: None required.

Monitoring and Reporting: None required.

VIII. GREENHOUSE GAS EMISSIONS Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			✓	

Sources: CalEEMod Version 2040.4.0; Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, prepared by SCAQMD, October 2008; Riverside County Climate Action Plan Update (2019); City of Palm Desert Environmental Initiatives Plan (2022); City of Palm Desert Environmental Sustainability Plan (2010); California Health and Safety Code.

Setting

Certain gases in the earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. GHGs are emitted during natural and anthropogenic (human-caused) processes. Anthropogenic emissions of these GHGs in excess of natural ambient concentrations are responsible for intensifying the greenhouse effect and have led to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. The California Air Resources Board is required to monitor and regulate seven GHGs: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), nitrogen trifluoride (NF_3), perfluorocarbons (PFCs), and hydrofluorocarbons (HFCs).[4]

State laws, such as Assembly Bill 32 (AB 32) and Senate Bill 32 (SB 32), require cities to reduce greenhouse gas emissions to 1990 levels by the year 2020. SB 32 is the extension of AB 32 and requires the state to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030.

The City of Palm Desert adopted an Environmental Sustainability Plan (2010) that is consistent with the goals of AB 32 and S-3-05, which calls for a statewide GHG emission reduction to 80% below 1990 levels by 2050. The Palm Desert Environmental Initiatives Plan, adopted in August 2022, provides an updated inventory of the City's current sustainability projects.

On December 5, 2008, the SCAQMD formally adopted a greenhouse gas significance threshold of 10,000 $MTCO_2e$/yr for stationary source industrial uses where SCAQMD is the lead agency (SCAQMD Resolution No.08-35). This threshold was adopted based upon an October 2008 staff report and draft interim guidance document that also recommended a threshold for all projects using a tiered approach. It was recommended by SCAQMD staff that a project's greenhouse gas emissions would be considered significant if it could not comply with at least one of the following "tiered" tests:

- Tier 1: Is there an applicable exemption?
- Tier 2: Is the project compliant with a greenhouse gas reduction plan that is, at a minimum, consistent with the goals of AB 32?
- Tier 3: Is the project below an absolute threshold (10,000 $MTCO_2e$/year for industrial projects; 3,000 $MTCO_2e$/year for residential and commercial projects)?
- Tier 4: Is the project below a (yet to be set) performance threshold?
- Tier 5: Would the project achieve a screening level with off-site mitigation?

The analysis provided below is based on this tiered approach.

[4] California Health and Safety Code §38505 (g).

Discussion of Impacts

a, b) Less than Significant Impact.

Construction Emissions

Construction activities will result in short-term GHG emissions associated with operation of construction equipment, employee commutes, material hauling, and other ground disturbing activities. There are currently no construction related GHG emissions thresholds for projects of this nature. Therefore, to determine whether the Project's construction emissions will result in a cumulatively considerable impact, buildout GHG emissions were amortized over a 30-year period and added to annual operational emissions to be compared with applicable GHG thresholds.

The GHG emissions associated with channel rehabilitation activities will be temporary. As shown in Table 6, the estimated GHG emissions from construction of the proposed Project, amortized over 30 years, will be 16.08 metric tons of CO_2 equivalent.

Operational Emissions

GHG emissions associated with the operation of development projects are associated with five source categories. Area emissions (including pavement and architectural coating off-gassing), energy use, water use, solid waste disposal, and mobile source emissions (e.g., vehicle trips). Once operational, the proposed channel rehabilitation project will not result in additional vehicle trips, energy consumption, water consumption, or solid waste production. As shown in Table 6, the Project will result in a negligible amount (0.0001 $MTCO_2e$/year) of GHG emissions, associated with area sources. This is likely due to off gassing from concrete components that will be added to the channel during rehabilitation. While additional emissions may result from potential maintenance on the channel in the future, these emissions would be temporary and insignificant.

Table 6
Projected GHG Emissions Summary
(metric tons/year)

Phase	CO_2e (MT/YR)
Construction - 2024	504.08
Operational	
Area	0.0001
Energy	0
Mobile	0
Waste	0
Water	0
Construction, 30-year amortized[1]	16.80
Total (30-year amortized construction + operational)[1]	**16.08**
SCAQMD Threshold	**3,000.00**

[1] Buildout construction GHG emissions amortized over 30 years. 504.08/30 = 16.80
Emission Source: CalEEMod Version 2040.4.0

On December 5, 2008, the SCAQMD formally adopted an absolute greenhouse gas significance threshold of 3,000 MTCO2e/yr for residential and commercial projects, as well as a threshold of 10,000 MTCO2e/yr that for industrial uses, where SCAQMD is the lead agency (SCAQMD Resolution No. 08-35). This threshold was adopted based

upon an October 2008 staff report and draft interim guidance document that also recommended a threshold for all projects using a tiered approach.[5] As shown in Table 6, the Project's combined operational emissions and amortized construction emissions of 16.08 metric tons of CO2e per year would not exceed the adopted threshold of 3,000 metric tons of CO2e per year.

Consistency with SCAQMD GHG Thresholds

As previously stated, it is recommended by SCAQMD staff that a project's greenhouse gas emissions should be considered significant if it does not comply with at least one of the following "tiered" tests:

- Tier 1: Is there an applicable exemption?
- Tier 2: Is the project compliant with a greenhouse gas reduction plan that is, at a minimum, consistent with the goals of AB 32?
- Tier 3: Is the project below an absolute threshold (10,000 $MTCO_2e$/year for industrial projects; 3,000 $MTCO_2e$/year for residential and commercial projects)?
- Tier 4: Is the project below a (yet to be set) performance threshold?
- Tier 5: Would the project achieve a screening level with off-site mitigation?

The projected 16.08 MTCO2e of emissions associated with the proposed Project are significantly below the Tier 3 absolute threshold of 10,000 MTCO2e for industrial projects or 3,000 MTCO2e for residential Project. Therefore, based on the SCAQMD "tiered tests", the Project would not generate significant levels of GHGs, and associated environmental impacts would be less than significant.

Consistency with Local GHG Reduction Measures

The GHG emissions associated with channel rehabilitation activities will temporary and will not substantially affect climate or interfere with a GHG reduction plan, including both the Riverside County Climate Action Plan and the City of Palm Desert Environmental Initiatives Plan. All components of construction, including equipment, fuels, and materials will be subject to current regulations of GHGs and equipment efficiency standards. Overall, given that the proposed Project would only temporarily generate GHGs during construction, and that the annual emissions associated with the proposed channel rehabilitation activities are projected to be well below the SCAQMD threshold, impacts related to greenhouse gas emissions will be less than significant.

Mitigation Measures: None required.

Monitoring and Reporting: None required

[5] Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, prepared by SCAQMD, October 2008.

IX. HAZARDS AND HAZARDOUS MATERIALS Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
b) 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?			✓	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				✓
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?				✓
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 or excessive noise for people residing or working in the project area?				✓
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			✓	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.				✓

Sources: City of Palm Desert General Plan (2016); City of Palm Desert Local Hazard Mitigation Plan (2017); CalFire FRAP and FHSZ map https://calfire-forestry.maps.arcgis.com/apps/mapviewer/index.html?layers=31219c833eb54598ba83d09fa0adb346 (accessed June 2023); State Water Resources Control Board GeoTracker https://geotracker.waterboards.ca.gov (accessed June 2023); Department of Toxic Substances Control EnviroStor https://www.envirostor.dtsc.ca.gov/public/ (accessed June 2023);

Setting

According to the City's General Plan Safety Element, there are very few hazardous materials generators in the City. Most of the risk associated with potentially hazardous materials is the result of the transport of such materials through the City, on major corridors such as the I-10. The City is responsible for coordinating with the appropriate agencies in the identification of hazardous material sites and regulation of their timely cleanup.

The Project site is located in a residential neighborhood, with no hazardous materials sites, airports, or wildland in the immediate vicinity. The proposed channel rehabilitation may involve the use of hazardous materials related to the operation and maintenance of construction equipment, the use and on-site storage of which would cease upon completion of the channel rehabilitation.

Discussion of Impacts

a, b) **Less than Significant Impact.** Construction of the Project could temporarily involve the use of hazardous materials such as chemicals, oils, fuels, lubricants, paints, and solvents. These substances would primarily be involved in the operation and maintenance of heavy construction machinery involved in channel rehabilitation activities. A staging area for storing materials has been identified, and the handling, storage, and use of these materials would be subject to local, state, and federal laws, including California Occupational Health and Safety Administration (CalOSHA) requirements.

Given that the Project is the rehabilitation of the Haystack Channel, it will not involve the routine transport, use, and storage of hazardous materials during long-term operations. The Project would also not be expected to 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. Overall, impacts will be less than significant.

c) **No Impact.** The Project site is not within one-quarter mile of an existing or proposed school. The proposed channel rehabilitation project would thus have no impact associated with emitting or handling hazardous materials in proximity of a school. The closest school is St. Margaret's located 0.38± miles west of the Project site and on the west side of State Highway 74.

d) **No Impact.** The Project site is not listed as a hazardous materials site according to the California Department of Toxic Substances Control EnviroStor database and the State Water Resources Control Board GeoTracker database. The nearest hazardous material site listed in either database is LUST Cleanup Site at the Marrakesh Country Club approximately 3,800 feet northeast of the subject site, which is listed in the GeoTracker database as completed and case closed. No other hazardous material sites occur within the Project or in the immediate vicinity. Therefore, based on the EnviroStor and GeoTracker databases, the Project is not included on a list of hazardous materials sites compiles pursuant to Government Code Section 65962.5, and it would not create any significant hazards to the public or the environment as a result. No impact will occur.

e) **No Impact.** The Project is not located within an airport land use plan, nor is it within two miles of a public use airport. The Bermuda Dunes (Crown Aero) Airport is located approximately 7.5 miles northeast of the Haystack Channel site, and the Palms Springs International Airport is located approximately 9.5 miles northwest of the subject site. Therefore, the proposed Project would not result in any airport-related safety hazards or excessive noise for people residing or working within the Project area. There would be no impact.

f) **No Impact.** The City's Local Hazard Mitigation Plan (LHMP) was updated in 2017, and includes priority actions to mitigate hazards, as well as actions to coordinate plans and resources in the event of an emergency. The proposed Project would not impair or interfere with an adopted emergency response or evacuation plan. According to the City's General Plan, key evacuation routes in the city include Monterey Avenue, Portola Avenue, Cook Street, and Washington Street. While construction activities associated with the Project would involve temporary impacts to Haystack Road or Calliandra Street, neither of these streets are considered key evacuation routes. Furthermore, the construction would be temporary, and a construction access plan will be required by the City to assure the Project does not interfere with emergency access during construction. Overall, impacts will be less than significant.

g) **No Impact.** The City's General Plan classifies the fire hazard in the Project area as Urban Unzoned. According to CalFire, the subject site is in a Local Responsibility Area and is more than a mile from the nearest Very High Fire Hazard Severity Zone (VHFHSZ). The Project proposes the rehabilitation of a drainage channel and does not propose the development of any residential buildings or other occupied structures. It therefore would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. There will be no impact.

Mitigation Measures: None required.

Monitoring and Reporting: None required

X. HYDROLOGY AND WATER QUALITY Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			✓	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				✓
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) result in substantial erosion or siltation on- or off-site;			✓	
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;				✓
(iii) 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; or			✓	
(iv) impede or redirect flood flows?				✓
(d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				✓
(e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				✓

Source: Site field surveys; Project development plan; USGS Quad Maps; Technical Memorandum and Preliminary Hydrology Study for the Haystack Channel Improvements - Project No. 509-22e, ERSC, Inc., January 20, 2023; Project Improvement Plans, ERSC, Inc., February 8, 2023; FEMA Panel 2209 of 3805, Map No. 06065C2209H, April 19, 2017.

Setting

The Coachella Valley's geographic and geophysical isolation from marine influences to the west has resulted in a local subtropical climate with very limited rainfall through much of the year. While annual rainfall typically ranges from 4 to 6 inches on the desert floor, no measurable rainfall has been recorded in some years. The surrounding San

Jacinto, Santa Rosa and Little San Bernardino Mountains are generally subject to cooler temperatures and receive more rainfall than the valley floor. Runoff is channeled through large watersheds that drain into the valley below. In the Coachella Valley, most rainfall occurs between November and March, but occasional high-intensity thunderstorms may occur during late summer and early fall. Although the desert floor can be dry at the beginning of a rainstorm, the ground can quickly become saturated when exposed to sufficient amounts and intensities of rainfall, substantially decreasing percolation and increasing runoff. Increased runoff produced upstream can potentially result in significant damage downstream. Urban development, which creates large, impervious surfaces, also increases the amount of runoff produced in the valley.

Regional Surface Water Hydrology

The project planning area is located at the southwesterly boundary of the Colorado River Hydrologic Region (HR) in the Whitewater River Hydrologic Unit (HU), and falls under the jurisdiction of the Colorado River RWQCB (Region 7).[6] Within Whitewater River Hydrologic Unit, the Project site lies in the Whitewater River watershed. Much of the watershed consists of sparsely populated mountains, desert, and agricultural lands. Urbanized areas are principally located on the Coachella Valley floor between Banning and Indio along Interstate 10, and from Palm Springs to Coachella along State Highway 111.[7]

Benchmark storms and historic data are used by the US Army Corps of Engineers and other flood control agencies to gauge the potential for future flooding. In the Coachella Valley, these include two distinct storm events that occurred in 1939 and 1979. The 1939 storm event occurred on September 24, was centered over Indio and originated off the west coast of Mexico. This storm generated 6.45 inches of rain in a 6-hour period. The 1979 storm event was due to the Tropical Storm Kathleen, which impacted the area from September 9 through 11 and generated 6.81 inches of rain in the low-lying areas of the central valley, and as much as 14 inches in the surrounding mountains. The projected 100-year 24-hour storm event in the planning area is 5.42 inches (NOAA Atlas 14).[8]

Groundwater Resources

California Department of Water Resources (DWR) Bulletin 118 describes the local groundwater basin as being bounded on the north and northeast by the San Bernardino and Little San Bernardino Mountains and on the westerly side by the Santa Rosa and San Jacinto Mountains. Movement of groundwater within the basin is limited and controlled by fault barriers, physical and elevation constrictions in the basin profile, and areas of low permeability. Based on these physical factors, the basin has been subdivided into subbasins and subareas. The boundaries between subbasins are generally based upon faults that are effective barriers to the lateral movement of groundwater.

CVWD obtains groundwater from both the Whitewater River and the Mission Creek Subbasins of the Coachella Valley Groundwater Basin. The Whitewater River Subbasin is a common groundwater source which is shared by numerous public and private groundwater producers. None of the groundwater basins in the Coachella Valley are adjudicated, and there are no legal agreements limiting pumping from the Whitewater River and Mission Creek subbasins. CVWD works with local public water agencies and other Coachella Valley stakeholders to implement the water management plans identified above for the Whitewater River, Mission Creek, and Garnet Hill Subbasins.

The Coachella Valley Groundwater Basin has been used for urban and agricultural supply since the early 20th century. The basin was first identified by DWR as being in a condition of overdraft in the 1940s. Overdraft is defined as the condition of a groundwater basin in which the outflows (demands) exceed the inflows (supplies) to the groundwater basin over the long term. The overdraft condition has caused Coachella Valley groundwater levels to decline in some areas, and has raised concerns about water quality degradation and land subsidence.

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6 Colorado River Hydrologic Region; http://www.water.ca.gov/pubs/groundwater/bulletin_118/california%27s_groundwater__bulletin_118_-_update_2003_/bulletin118_10-cr.pdf; Accessed October 2017.

7 Whitewater River Watershed Municipal Stormwater Program (Stormwater Management Plan 2001 - 2006), prepared by Camp Dresser and McKee, Inc.

8 NOAA's National Weather Service Hydrometeorological Design Studies Center; accessed 07.08.2016.

In-lieu groundwater replenishment using imported Colorado River water began in 1949 when the first deliveries from the Coachella Canal were received in the eastern portion of the Coachella Valley. To further address the overdraft conditions, CVWD and DWA jointly operate direct groundwater replenishment programs in the basin. Recharge activities using imported water commenced in the western portion of Coachella Valley in 1973, at the Whitewater River Groundwater Replenishment Facility. Additionally, recharge activities in the eastern portion of Coachella Valley were commenced in 1997 at the Dike No. 4 pilot recharge facility and expanded by CVWD in 2009; this facility is now called the Thomas E. Levy Groundwater Replenishment Facility (CVWD 2006). CVWD and DWA also began replenishment of the Mission Creek Subbasin in 2003. The water management plans identify the continued use of these recharge facilities as a critical component of the Coachella Valley's water supply. As of 2019, CVWD operates a fourth groundwater replenishment facility located in Palm Desert. Once fully built out, the facility will have the capacity to recharge up to 25,000-acre feet annually.

Water Quality and Water Quality Standards

Water for construction and occasional channel maintenance will come from nearby fire hydrants connected to the CVWD's local domestic water system from wells extracting groundwater. CVDW complies with state (California Department of Public Health) and federal (U.S. Environmental Protection Agency) drinking water quality standards. Each year, CVWD monitors domestic water wells for regulated and unregulated chemicals that are not detected during regular, ongoing monitoring. The domestic water supply meets current state and federal standards; however, drinking water supplied to some service areas does contain low levels of naturally occurring hexavalent chromium (Cr6), arsenic, radon, and nitrate.[9]

Impaired Water Bodies

There are no identified "impaired waters" in the Project vicinity. The nearest impaired water body is that portion of the Coachella Valley Stormwater Channel south of the Valley Sanitary District outfall and is listed as being impaired for Toxaphene, DDT (Dichlorodiphenyltrichloroethane), Nitrogen, Dieldrin, ammonia (Total Ammonia), PCBs (Polychlorinated biphenyls), Toxicity and Indicator Bacteria under Section 303(d) of the Clean Water Act (CWA). Total Maximum Daily Loads (TMDLs) for these pollutants have been established.

Surface Water Quality Objectives/Standards and Beneficial Uses

Being located within the Colorado River Basin Region, the Coachella Valley's surface water quality objectives include meeting or exceeding standards for the appearance or aesthetic quality of surface waters, any tainting substances, toxicity, temperature, pH, dissolved oxygen, suspended and settleable solids, total dissolved solids, bacteria, bio-stimulatory substances, sediment, radioactivity, chemical constituents and pesticide wastes.

Project Channel Conditions

The subject Haystack Channel has been in place for many years (pre-1985) and was constructed to intercept and convey stormwater runoff originating from the south. The watershed has been divided into seven sub-areas. The drainage area tributary to the Haystack Channel encompasses approximately 1,591 acres and is generally bounded by State Highway 74 to the west and Portola Avenue to the east.

Modeling of baseline conditions along the Haystack Channel used the Rational Method for each watershed for the 100-year return frequency. The analysis indicates that at approximately the point of discharge under Portola Avenue indicated flow depths of 2.0 feet to 3.7 feet with associated velocities in the range of 7.5 to 9.5 feet per second. In the baseline condition, Portola Avenue is overtopped and runoff crosses the roadway, but is contained within highpoints located north and south of the culvert. The depth of flow immediately upstream (west) of the roadway is 4.53 feet and across the roadway the flow depth is approximately 1.0-foot. Analysis indicates that the roadway is designed to be overtopped by storm flows during significant storms. The design storm is unknown, however, the multiple cell reinforced box culvert under Portola Avenue is adequate to convey smaller return frequency storms.

[9] Coachella Valley Water District (2013-2014 Annual Review); http://www.cvwd.org/ Archive Center/ViewFile/ Item/59; Accessed 8.30.2016.

Upstream of Portola Avenue, the channel has the appearance of an unimproved earthen watercourse. However, the engineering assessment conducted for the subject channel improvement project indicates that at one time the channel was graded to a trapezoidal prismatic cross section. The section appears to have been altered over time through erosion and subsequent maintenance activities. Immediately upstream of Portola Avenue, the section appears to be in transition from a uniform section to the width of the multiple cell reinforced box culvert crossing. This reach of channel is approximately 500 feet long and exhibits flow depths between three and four feet and channel velocities up to 10.0 feet per second.

Upstream of this reach, the earthen channel cross section becomes more uniform but continues to show the effects of erosion mainly along the channel banks. There are three storm drain inlets in this channel reach all located on the south bank. Specific details related to these inlets are available in Tables 2 and 3 and Appendix A of the Technical memorandum (Appendix D of this document). Flow velocity in this reach is uniform and ranges between 6.5 and 8.5 feet per second and the depth of flow is uniform and slightly deeper that two feet.

Near Heliotrope Drive, the channel profile changes significantly with invert elevations increasing in an upstream direction approximately 7.5 feet due to a scour hole that has developed at the end of the grass lined section downstream (east) of Heliotrope Drive. At Heliotrope Drive, storm flows are conveyed under the roadway via four 48-inch reinforced concrete pipe culverts. At this location, the hydraulic model indicates that storm flows are contained within the channel. The depth of flow and velocity at the Heliotrope culvert outlet are 3.7 feet and 7.8 feet per second.

West of Heliotrope Street

Upstream of Heliotrope Drive the channel section changes significantly from the unlined and unimproved channel east of Heliotrope to a uniform, prismatic, and grass-lined section. At four locations along this reach of channel storm drains enter the Haystack channel with three outlets on the south bank and one on the north. These inlets are characterized by concrete headwalls, concrete invert (apron), and concrete slope protection. Flow velocity is this reach is uniform and ranges between 6.7 and 7.6 feet per second. Associated flow depths are typically on the order of 2.5 feet.

This channel reach terminates at Alamo Road. The crossing at Alamo Road consists of two 30-inch reinforced concrete pipes. The hydraulic model indicates the existing culverts have the capacity to safely convey the anticipated storm flow under the roadway. Upstream of Alamo Road, the study area becomes a greenbelt with a low flow swale rather than a well-defined channel. Depth of flow and velocity are minimal.

Discussion of Impacts

a) **Less Than Significant With Mitigation.** For the proposed Project, most of the construction activities will be occurring within the channel and atop the channel service road. Other activities will include the transport of materials into and out of the channel and the management of storm flows in the channel as construction progresses. Construction activities at the site would entail the use of heavy equipment and associated potentially hazardous materials, such as fuels (gasoline and diesel), oils and lubricants, and cleaners (e.g., solvents, corrosives, soaps, detergents), which are commonly used in construction projects. During construction, accidental spills could occur and potentially cause a discharge of hazardous materials to surface or groundwater and violating water quality standards. Preparation of staging areas and construction site prior to construction will require limited clearing and grubbing. All removal will be mechanical, and no use of herbicides is anticipated for this purpose.

Excavation in the channel bottom will be required to construct the toe-down/slope lining (sub-grade portions) of the channel side slope lining east of Heliotrope and will involve the dry installation of rip rap a minimum of 8 feet below the channel bottom. Project engineers plan to excavate and install the side slope lining in stages. Each phase of lining will proceed along the channel side slope and a new temporary

adjoining de-silting basin will be excavated if necessary to retain any incidental runoff. In this manner, excavation and temporary de-silting basins may be constructed and backfilled as lining progresses downstream.

Several components of the project would include construction with concrete within the channel with limited amounts of elastomeric sealant (conforms to ASTM C 920) used to bond pour segments and provide for expansion. Uncured concrete is extremely alkaline with a pH near 12 and this caustic material is harmful to plants and wildlife. Of particular concern is concrete washout from cleaning ready mixed concrete trucks and hoppers of concrete pump trucks, highly diluted concrete slurry. Concrete washout slurry can alter soil chemistry, inhibit plant growth, can degrade surface and groundwater, and result in violations of water quality standards.

Ground-disturbing activities during construction could result in increased soil erosion and input of sediment into water sources. It should be noted that in the existing channel soils are generally very dry and subject to fluvial and wind erosion. Under the proposed Project, grading, excavation and other ground-disturbing activities may contribute to near-term soil erosion. Project activities that could increase soil erosion and deposition into surface waters include:

- Demolition and excavation of existing concrete and earthen materials,
- Modifications to channel bed and slopes via excavation and grading of earthen material,
- Use of heavy equipment for hauling excess cut and debris, and
- Stockpiling of excavated materials or soils to be used for backfill.

The potential for natural erosion type hazards is high in areas with a combination of the following conditions: 1) moderately steep to steep slopes (greater than 15 percent), 2) loose to unconsolidated soils and sediments, 3) little or no vegetation cover, and 4) uncontrolled surface water runoff. Changes in any of these conditions can increase erosion potential. Additionally, an increase in erosion can increase downstream sediment loads.

Soils in the project area would be disturbed during construction as a result of material excavation along the channel bed and banks, and during construction and use of access roads. Erosion may also occur at the Project staging area planned along Portola Avenue immediate north of the channel, where initial grading and subsequent disturbance by construction equipment would destabilize soils, leaving them vulnerable to erosion. Soils stockpiling, hauling or backfill would be especially vulnerable to erosive effects of wind and rain. As soils in the project area are relatively easily erodible, even soils that are stockpiled properly may erode as a result of rain or high winds.

Impacts associated with excessive erosion include degraded water quality and excessive sedimentation. Erosion would be limited by application of a variety of methods and materials to stabilize disturbed surfaces, including on-going site watering, which is planned as part of project construction. While project construction has the potential to increase soil erosion and deposition into surface flows, it should be considered that the east channel segment's normal function is to transport bulked flood flows that convey silt, sand and gravels along the channel. Necessary periodic channel maintenance also destabilizes channel soils and exposes them to wind and water erosion. Therefore, erodible channel soils are an existing and on-going condition in the dry desert climate.

Temporary or portable sanitary facilities provided for construction workers could be a source of sanitary waste that could affect the human use environment if not properly managed. The use and maintenance of these facilities, however, is regulated, and any contractor engaged to provide the service will be subject to and must implement these regulations.

Construction BMPs referenced above and required by Mitigation Measures set forth below, will effectively reduce or avoid the discharge of any pollutants of concern that might enter nearby receiving waters by establishing limits of construction and the use of a variety of standard practices, including silt berms and fences, earth dikes, drainage swales, sediment traps, check dams, reinforced soil retaining systems, temporary sediment basins and flow diversion. In accordance with the Colorado River Basin Region NPDES Permit (NPDES No. CAS617002), the channel improvement project is not a Priority Development project. Therefore, no post-construction BMPs are required. With the application of mitigation set forth below the project will not exceed wastewater discharge requirements, and impacts to water quality will be less than significant.

To protect the water quality during construction, SWRCB's existing construction policy (Construction General Permit Order 2009-0009-DWQ) will require the development of a project specific construction SWPPP in compliance with the State's General Construction Permit. Temporary construction BMPs considered and incorporated into the project, as appropriate, would include:

- Soil stabilization (erosion control) techniques such as on-going site watering, soil binders, etc.;
- Sediment control methods such as detention basins, silt fences, and dust control;
- Contractor training programs;
- Material transfer practices;
- Waste management practices such as providing designated storage areas and containers for specific waste for regular collection;
- Concrete washout slurry shall be discharged and disposed of in an approved manner;
- Channel cleaning/tracking control practices;
- Vehicle and equipment cleaning and maintenance practices; and
- Fueling practices.

By following the procedures outlined in the mitigation measures set forth below, as well as SWPPP, impacts to water quality associated with construction activities would be less than significant because pollution, contamination or nuisance as defined in Section 13050 of the California Water Code (CWC) or violation of regulatory standards as defined in the applicable NPDES stormwater permit or Water Quality Control Plan for receiving water body would be minimized and less than significant with mitigation.

Operational Impacts

Channel operation and maintenance impacts that could affect water quality will be very limited and less than significant. City periodic channel inspections and annual channel maintenance will follow well-established protocols. Biological resources are dependent on aquatic resources downstream of the project site since the receiving waters have beneficial recreation uses. A wide range of project design elements, including inert and non-toxic paving materials, and regular maintenance, will ensure that post-construction the Project does not violate any water quality standards or wastewater discharge requirements, and will preclude adverse impacts to aquatic resources in the project area and downstream and therefore have a less than significant impact on water quality.

Impacts to the local and regional water quality would be less than significant with application of the mitigation measures set forth below.

Utility Relocation Component

The Project includes the relocation (or possible elimination) of one or two SCE power poles, one of which currently encroaches into the channel. As with the channel improvement portion of the Project, application of mitigation measures set forth below will ensure that construction activities associated with the utility relocation component of the project will not exceed wastewater discharge requirements and impacts to water quality will be less than significant.

To protect the water quality during construction, SWRCB's existing construction policy (Construction General Permit Order 2009-0009-DWQ) will require the development of a project specific construction SWPPP in compliance with the State's General Construction Permit. Temporary construction BMPs will be considered and incorporated as appropriate.

With the application of Best Management Practices set forth in the project Water Quality Management Plan the proposed project will not violate any water quality standards or waste discharge requirements. Construction at the site will be subject to all applicable water quality standards for waste discharge requirements of the City. A Storm Water Pollution Prevention Plan (SWPPP) maybe required because there is more than one acre of disturbed area. Compliance with existing regulations and requirements will result in a less than significant impact on water quality standards and waste discharge requirements.

By adhering to standard programmatic permits and work site management protocol, as well as adherence to the mitigation measures set forth below, the Project's impacts on water quality will be less than significant.

b) **No Impact.** The construction of the subject channel improvements will require very limited groundwater resources for site watering, hydroconsolidation of soils, dust control and incidental uses. Once completed, the project will require no groundwater use excepting possible use in conjunction with periodic channel maintenance. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.

c) (i) **Less Than Significant.** The Project will involve excavation to remove and replace existing sub-surface drains in that portion of the existing channel located west of Heliotrope Drive. These portions of the channel are currently landscaped with grass, trees and shrubs and are well-irrigated. Excavation and replacement of the sub-grade drainage system in these reaches are not expected to generate silt or eroded soils, nor will this work or post-construction conditions result in substantial erosion or siltation on- or off-site. As discussed above (see X.a), above) a wide range of BMPs to control dust generation and soils erosion and discharge will be mitigated to less than significant levels. Therefore, impacts will be less than significant.

c) (ii) **No Impact.** The proposed Project involves the restoration of an existing stormwater channel, including the replacement of sub-grade drains and the re-shaping and rip rap lining of channel side slopes east of Heliotrope Drive to Portola Avenue. The channel will continue to serve and convey runoff from the same tributary watershed and there will be no net increase in channel flows. Therefore, the Project will not increase the rate or amount of surface runoff in a manner and will not induce flooding on- or off-site. Therefore, there will be no impacts regarding increases in the rate or amount of runoff.

c) (iii) **Less Than Significant.** As noted in section c) (ii), above, the Project is a channel restoration that is designed to address erosion issues on the easternly portion of the subject channel reach and to replace inadequate and failing sub-grade drains in the Project reach west of Heliotrope Drive. The Project will neither create nor contribute new runoff that would exceed the channel's design capacity. Neither is the Project expected to create additional sources of pollution once construction is completed. During construction, a range of BMPs will be applied to avoid and minimize the potential for Project construction to discharge additional polluted runoff. Therefore, impacts will be less than significant.

c) (iv) **No Impact.** As noted in section c) (ii) and c) (iii), above, the Project is a channel restoration that is designed to return the channel to its original condition while improving stormwater percolation and infiltration, and address and prevent or limit channel erosion in the unlined portion of the channel east of Heliotrope Drive. The Project will not create or contribute new runoff, nor will the Project impede or redirect flood flows. Therefore, the Project will have no impacts on impeded or redirected storm flows.

d) **Less than Significant Impact.** The proposed Project will restore the Haystack Channel to its original condition and upgrade the facility to restore stormwater capacity and infiltration and to eliminate or greatly reduce erosion in the easterly reach of the Project. The Project will address existing drainage facilities and will not create any new flood hazards, will not occur within or be susceptible to tsunami or seiche zones, nor is there a meaningful risk of release of pollutants due to project inundation. Therefore, Project impacts will be less than significant.

e) **No Impact.** The proposed Project will replace and improve existing sub-grade stormwater storage and infiltration facilities and will address existing erosion issues in the eastern segment of the channel through the installation of ungrouted channel slope protection and maintenance of the sandy channel bottom in this reach. The existing and improved channel serve to enhance runoff infiltration and bioremediation and will not **c**onflict with or obstruct implementation of any water quality control plan or sustainable groundwater management plan.

CEQA-Plus: Supplemental Analysis

Watershed and Water Quality

The project site is located in the Colorado River Basin Region (Region 7) watershed, as designated by the California Regional Water Quality Control Board (CRWQCB). CRWQCB implements and enforces federal and state regulations throughout the region to assure that water quality standards are met. Water quality is also monitored by CVWD through the National Pollutant Discharge Elimination System (NPDES) permit process. These requirements assure that runoff leaving the stormwater channel project site during and after construction, if any, is not polluted and does not contain silt or other materials. The City will secure a CWA 401 permit from the California Regional Water Quality Control Board (CRWQCB) prior to the initiation of the Project, and will require that the project contractor use best management practices (BMP) to assure that project-related water percolating into the ground is not contaminated.

The principal domestic (non-agricultural) water sources for the project area and the Coachella Valley are groundwater and imported Colorado River water. Direct precipitation makes a very limited contribution to valley groundwater supplies. All potable water is pumped from groundwater subbasins, and imported supplies are used for agriculture and landscape irrigation, and groundwater recharge. The Whitewater River subbasin underlies the project area and has the largest storage capacity of all Coachella Valley groundwater basins. According to CVWD's Urban Water Management Plan, the quality of local groundwater and treated and untreated Colorado River water is characterized as "good" and meets state and federal drinking water quality standards. These standards are projected to be met over the long-term and the project will have no adverse effects on local or regional groundwater resources.

100-Year Floodplain

As described above, the Project site is located in the Federal Emergency Management Agency (FEMA) Zone X, an area of 1% annual chance flood with average depth less than one foot (FEMA Panel 2209 of 3805, Map No. 06065C2209H, April 19, 2017). No adverse flooding effects are expected to result from the installation of the subject channel improvements.

Safe Drinking Water Act/Sole Source Aquifer Protection

The Project is not located within the boundaries of a sole source aquifer (SSA). The closest SSA is the Campo/Cottonwood Creek Aquifer SSA, located approximately 46 miles to the southwest.

Mitigation Measures:

The channel improvement design process has taken into consideration the relationship to and potential impacts on the existing and long-term water quality in the channel. Overall, the project will have a significant beneficial impact on area drainage, provide substantial improvements to infiltration facilities and maintain the existing soft channel

bottom in the east channel segment to support a wide range of vegetation and associated bioremediation. The following measures are set forth to ensure that project impacts are below levels of significance.

HYD-1 Project Plan Review

Prior to finalizing the hydraulic design and engineering plans for Haystack Channel improvements, said plans shall be reviewed and approved by the City Engineer to ensure that these improvements do not interfere with or adversely affect channel capacity or the ability of City to manage and maintain these facilities.

HYD-2 NPDES Requirements

The Project shall comply with the requirements of the National Pollution Discharge Elimination System (NPDES).

HYD-3 General BMPs

The implementation of BMPs during construction activities shall ensure that erosion and siltation from earthmoving and other construction activities is limited. Exposed soil from excavated areas, stockpiles, and other areas where ground cover is removed shall be stabilized by wetting or other approved means to avoid or minimize the inadvertent transport by wind or water. Temporary construction BMPs considered and incorporated into the project, as appropriate, would include:

- Soil stabilization (erosion control) techniques such as on-going site watering, soil binders, etc.;
- Sediment control methods such as detention basins, silt fences, and dust control;
- Temporary de-silting basins may be constructed incrementally along the channel, as needed, to store and clarify water adjoining de-watered areas in the channel, and will be backfilled as side slope lining progresses downstream.
- Contractor training programs;
- Material transfer practices;
- Waste management practices such as providing designated storage areas and containers for specific waste for regular collection;
- Concrete washout slurry shall be discharged and disposed of in an approved manner;
- Channel cleaning/tracking control practices;
- Vehicle and equipment cleaning and maintenance practices; and
- Fueling practices.

HYD-4 Stormwater Pollution Prevention Plan

The construction contractor shall implement a City-approved (SWPPP) during construction of the Project. The SWPPP shall identify specific best management practices (BMPs) that will be implemented during project construction. BMPs implemented as a part of the project will ensure that the project meets the requirements of the California State Water Resources Control Board NPDES Construction General Permit.

Construction-related erosion and sediment controls, including any necessary stabilization practices or structural controls, shall be implemented at and in all potentially affected drainages. General structural practices may include, but are not limited to, silt fences, earth dikes, drainage swales, sediment traps, check dams, reinforced soil retaining systems, temporary or permanent sediment basins and flow diversion.

Temporary erosion and sediment control measures shall be installed during or immediately after initial disturbance of the soil, maintained throughout construction (on a daily basis), and reinstalled until replaced by permanent erosion control structures or final grading and other site disturbances are complete. In addition, the following specific actions shall be taken to ensure that impacts are less than significant.

a) The construction shall be avoided within the limits of identified waterways as depicted on the Jurisdictional Delineation Report prepared for this IS/MND, except as authorized by federal, state or local permits.
b) Protect inlets and outlets of culverts from construction material intrusions using temporary berms to prevent channel incision, erosion, and sedimentation.
c) Erosion control measures appropriate for on-the-ground conditions, including percent slope, length of slope, and soil type and erosive factor, shall be implemented.
d) Temporary erosion controls such as straw bales and tubes, geotextiles and other appropriate diversion and impounding materials and facilities shall be properly maintained throughout construction (on a daily basis) and reinstalled (such as after backfilling) until replaced with permanent erosion controls or restoration is complete.
e) Where jurisdictional waters are adjacent to or within the construction area, the contractor shall install sediment barriers along the edge of the construction right-of-way to contain spoil and sediment within the construction area and limit discharge into jurisdictional areas or waters.
f) Ensure that all employees and contractors are properly informed and trained on how to properly install and maintain erosion control BMPs. Contractors shall require all employees and contractors responsible for supervising the installation and maintenance of BMPs and those responsible for the actual installation and maintenance to receive training in proper installation and maintenance techniques.
g) Project scheduling will include efficient staging of the construction that minimizes the extent of disturbed and destabilized work area and reduces the amount of soil exposed and the duration of its exposure to wind, rain, and vehicle tracking.
h) The use of a schedule or flow chart will be incorporated to lay out the construction plan and will allow proposed improvements to proceed in a manner that keep water quality control measures synchronized with site disturbance, concrete pours and other construction activities.
i) The sequencing and time frame for the initiation and completion of tasks, such as site clearing, grading, excavation, concrete and rip rap lining and other construction, shall be planned in advance to ensure minimization of potential impacts.

HYD-5 Petroleum BMPs

To prevent petroleum products from contaminating soils and water bodies in the channel, the following BMPs shall be implemented:

a) Construction equipment and vehicles shall be properly maintained to prevent leakage of petroleum products.
b) Vehicle maintenance fluids and petroleum products shall be stored, and/or changed in staging areas established at least 100 feet from delineated streams and other drainages. These products must be discarded at disposal sites in accordance with state and federal laws, rules, and regulations.
c) Drip pans and tarps or other containment systems shall be used when changing oil or other vehicle/equipment fluids.
d) Areas where discharge material, overburden, fuel, and equipment are stored shall be designed and established at least 100 vegetated (permeable) feet from the edge of delineated streams.
e) Any contaminated soils or materials shall be disposed of off-site in proper receptacles at an approved disposal facility.
f) All erosion control measures shall be inspected and repaired after each rainfall event that results in overland runoff. The project contractor shall be prepared year-round to deploy and maintain erosion control BMPs associated with the project.
g) Existing culverts shall be carefully maintained in place in order to ensure that they function properly. Considerations include: maintenance of inlet and outlet elevations, grade, adequate compacted material cover, and inlet/outlet protection.

Monitoring and Reporting:

HYD-A Project Plans shall be reviewed and approved by the City Engineer to ensure that these improvements do not interfere with or adversely affect channel capacity or the ability of City to manage and maintain these facilities.
Responsible Parties: Project Design Engineer, City Engineer
Schedule: Prior to finalizing the hydraulic design and engineering plans.

HYD-B The Project shall comply with the requirements of the National Pollution Discharge Elimination System (NPDES).
Responsible Parties: City Engineer, Contractor
Schedule: Prior to and during construction activities.

HYD-C Implement BMPs during construction activities by approved means to avoid or minimize the inadvertent transport by wind or water.
Responsible Parties: City Engineer, Contractor
Schedule: Prior to and during construction activities.

HYD-D Implement City-approved (SWPPP) with specific best management practices (BMPs) as a part of the project will ensure that the project meets the requirements of the California State Water Resources Control Board NPDES Construction General Permit.
Responsible Parties: City Engineer, Contractor
Schedule: Prior to and during construction activities.

HYD-E To prevent petroleum products from contaminating soils and water bodies in the channel, the HYD-5 BMPs shall be implemented.
Responsible Parties: City Engineer, Contractor
Schedule: Prior to and during construction activities.

XI. LAND USE AND PLANNING Would the project:	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?				✓
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				✓

Sources: City of Palm Desert General Plan (2016); Palm Desert Municipal Code.

Setting

From Highway 74 to Heliotrope Drive, the Project site is designated as Open Space on the General Plan land use map. A single parcel, immediately to the east of Heliotrope Drive (APN 630-190-051) is designated as Conventional Suburban Neighborhood. The remaining eastern portion of the site, extending to Portola Avenue, is designated as Golf Course & Resort Neighborhood. This designation allows lower-intensity neighborhood development that features golf course activity, or similar recreational orientation, and limited commercial uses.

The Project site is zoned as Open Space, which is intended for areas reserved for parks, public or private recreation, protection of natural and developed open spaces, governmental public uses, or areas where a hazard to the public may exist.

Discussion of Impacts

a) **No Impact.** The Project proposes the rehabilitation of an existing drainage channel which has been in place for several decades. The channel runs parallel to Haystack Road from Highway 74 in the west to Portola Avenue in the east. The site is lined by existing residential developments on both the north and south sides. A meandering sidewalk runs parallel to the channel on the south side of the site. The Project site, including the sidewalk and the channel area, is used by residents of the adjacent neighborhoods as a public open space for walking and other activities.

The proposed improvements to the Haystack channel would not alter its course, nor would they prevent its use as an open space for the community. It would therefore not physically divide an established community. There would be no impacts.

b) **No Impact.** The Haystack Channel has been in place for decades and with the proposed improvements would continue to conform to the land use and zone designated for the site. The facility, which intercepts north-flowing runoff, is also used as an open green space for public recreation, consistent with the intended uses in the Open Space zone. Its use is consistent with General Plan policies for open space and parks, and is consistent with the greenway/trail park type provided in the plan.

A portion of the channel from Heliotrope Drive to Portola Avenue is designated for Golf Course & Resort Neighborhood use. While the suggested neighborhood and golf course uses do not occur on the subject site, the channel would provide an open space amenity for residents of the golf course neighborhood to the north of the Project. The General Plan parks and open space guidelines for the Golf Course & Resort Neighborhood designation recommend the inclusion of open spaces throughout the neighborhood, including the preservation of natural terrain and features of the desert. The proposed Project would conserve, to the extent practicable, the native desert plants and terrain currently present on the site.

The proposed Project therefore would not conflict with any land use plan, policy, or regulation, nor would it cause any significant environmental impacts as a result. There would be no impact.

CEQA-Plus: Supplemental Analysis

Formally Classified Lands

The proposed Project will occur within an historically disturbed and developed area. Today, the lands surrounding the project site are developed as single-family residences and local streets. None of the lands in the immediate project vicinity are formally classified lands, such as national parks or landmarks, and none are federally administered. Consultation with Native American tribes in the project vicinity is documented in Appendix C of this Initial Study. No direct, indirect, or cumulative impacts to formally classified lands will occur as a result of the proposed Project.

Coastal Management Zone

The Coachella Valley, in which the project is located, is an inland low-elevation desert region and is not in a Coastal Management Zone. The project will not result in environmental consequences to a Coastal Management Zone.

Mitigation Measures: None required.

Monitoring and Reporting: None required.

XII. MINERAL RESOURCES Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?				✓
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?				✓

Sources: Soils Survey of Riverside County, California, Coachella Valley Area," U.S. Soil Conservation Survey, September 1980; Mineral Land Classification: Aggregate Materials in the Palm Springs Production-Consumption Region, Special Report 159 (Plate 15)," California Department of Conservation, Division of Mines and Geology, 1988; Palm Desert General Plan (2016); City of Palm Desert General Plan Update & University Neighborhood Specific Plan Draft Environmental Impact Report, 2016.

Setting

The California Surface Mining and Reclamation Act of 1975 (SMARA) was adopted to ensure both the preservation of mineral resources and the protection of the environment. Pursuant to SMARA, the state Mining and Geology Board designates mineral resource sectors within geographic areas where significant mineral resources of statewide importance and regional significance are located. The City of Palm Desert is in the Palm Springs Production-Consumption Region and in Mineral Resource Zone 3 (MRZ-3), which is defined as "areas containing known or inferred mineral occurrences of undetermined mineral resource significance."

The California Division of Mines and Geology determines the location of mineral resources of statewide or regional significance. Lands in the City of Palm Desert are located in Mineral Resource Zones 1 and 3 (MRZ-1, MRZ-3). The subject Project is located in MRZ-3 and is approximately 0.22 to 1.14 miles from the nearest point of contact with bedrock, and therefore has relatively shallow soils. Mineral resources in the Coachella Valley are largely limited to sand and gravels, and the lack of a fluvial regime and deposition in the area precludes such resources in the project area. Mining of potentially viable sand and gravel resources is also precluded by existing development.

Discussion of Impacts

a, b) **No Impact.** The entirety of Palm Desert, including the Project site, is in Mineral Resource Zone 3 (MRZ-3). According to the General Plan EIR, the significance of any mineral resource in MRZ-3 is considered speculative because no mining has historically occurred in the area. The Project proposes the rehabilitation of an existing drainage channel, and therefore would not result in the loss of availability of any known mineral resources. The Project site is not designated, used, or planned for mineral resource extraction or development. Therefore, the Project would have no impact on mineral resources.

Mitigation Measures: None required

Monitoring and Reporting: None required

XIII. NOISE Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generation of substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			✓	
b) Generation of excessive groundborne vibration or groundborne noise levels?			✓	
c) For a project located within the vicinity of a private airstrip or 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?				✓

Sources: City of Palm Desert General Plan (2016); Palm Desert Municipal Code; CA/T Equipment Noise Emissions and Acoustical Usage Factors Database, FHWA Roadway Construction Noise Model User's Guide (2006) by U.S. Department of Transportation (accessed June 2023); Caltrans Transportation and Construction Vibration Guidance Manual (September 2013); Federal Transit Administration, Transit Noise and Vibration Impact Assessment (May 2006).

Setting

The primary source of noise in Palm Desert is traffic noise, including from regional highways, such as California State Route 74 and major roadways such as Portola Avenue and Haystack Road, which adjoins the Project site. Other noise generators in the City include construction activities, commercial delivery activities, and landscape maintenance equipment. Residences, schools, libraries, and senior care facilities are considered noise-sensitive receptors. The Project site is located in a quiet residential neighborhood with limited traffic noise. The Bermuda Dunes (Crown Aero) Airport is within the City's sphere of influence, approximately 6.25 miles northeast of the Project site. The Palms Springs International Airport is approximately 9.6 miles from the subject site.

City Noise Standards

The Noise Element in the City's General Plan provides a Noise Compatibility Matrix which defines the acceptable noise level for different land uses in Palm Desert. The "Normally Acceptable" noise level range for single family residential land uses is 50 to 60 dBA CNEL. Chapter 9.24 of the City's Municipal Code provides noise control policies and regulations. According to §9.24.030, the ten-minute average sound level limit in all residential zones is 55 dBA from 7 a.m. to 10 p.m., and 45 dBA from 10 p.m. to 7 a.m. These noise level limits do not include temporary noise generated by construction activities. Pursuant to §9.24.070, construction activities must be limited to the following hours:

Table 7
City of Palm Desert – Permitted Hours for Construction Activity

	October 1st to April 30th	May 1st to September 30th
Monday to Friday	7:00 a.m. to 5:30 p.m.	5:30 a.m. to 7:00 p.m.
Saturday	8:00 a.m. to 5:00 p.m.	8:00 a.m. to 5:00 p.m.
Sunday and holidays	None	None

Source: City of Palm Desert Municipal Code §9.24.070

Discussion of Impacts

a) Less than Significant Impact.

Construction Noise: Project construction will require the use of heavy equipment that would temporarily increase noise levels in the vicinity of the site. Construction noise will be generated as a result of excavation and grading, as well as channel slope and bottom lining. These activities may involve equipment such as utility trucks, graders and excavators, water trucks, compactors, front-end loaders, trenchers, and haul trucks. Table 8 provides reference noise levels at 50 feet associated with construction equipment typical of a project of this nature:

Table 8
Typical Construction Equipment and Associated Noise Levels

Equipment Type	Reference Noise Level at 50 feet (dBA Lmax)
Flat Bed Truck	74.0
Rubber Tired Dozer	82.0
Tractor/Loader/Backhoe	79.0
Excavator	81.0
Grader	85.0
Auger Drill Rig	85.0
Drum Mixer	80.0
Jackhammer	89.0
Vibrator Plate Compactor	104.0

Source: CA/T Equipment Noise Emissions and Acoustical Usage Factors Database, FHWA Roadway Construction Noise Model User's Guide (2006) by U.S. Department of Transportation (accessed June 2023).

Given the Haystack Channel's location in a residential neighborhood, construction activities may exceed the City's noise limit for residential land uses. However, construction-related noise will be temporary, and high noise levels would be intermittent. Moreover, construction activities related to the proposed channel rehabilitation will be subject to the permitted hours pursuant to §9.24.070 of the Municipal Code, and as provided in Table 7, above. Provided the Project adheres to these hours, any construction-related noise temporarily increasing the ambient noise level in the vicinity of the subject site would not be in excess of the standards established in the local general plan or noise ordinance. Impacts would be less than significant.

Operational Noise: Once the proposed channel rehabilitation is complete, the Project site would not be expected to generate substantial noise. While occasional noise associated with maintenance activities is anticipated, these activities would be temporary and periodic. Moreover, maintenance of the channel would be exempt from the City's noise regulations in accordance with §9.24.060 of the Municipal Code, which applies to the operation and maintenance of public works projects. Therefore, operational noise associated with the Haystack Channel would not temporarily or permanently increase ambient noise levels in the vicinity of the Project site in excess of standards established in the local general plan or noise ordinance. There would be no impact.

b) Less than Significant Impact. In addition to noise generation, construction activities associated with the Project are expected to result in groundborne vibration. The City does not have established standards for vibration, including vibration generated by construction equipment. According to the Caltrans Transportation and Construction Vibration Guidance Manual, the threshold for building damage resulting from vibration is 0.3 in/sec peak particle velocity (PPV),[10] and the threshold for human annoyance is 0.01 in/sec PPV. Table 9 shows the vibration levels associated with typical construction equipment at 25 feet.

[10] Vibration damage potential threshold for older residential structures. Fragile and historic buildings may be damaged at lower vibration levels, but do not occur in the Project vicinity.

Table 9
Typical Construction Equipment and Associated Vibration Levels

Equipment Type	PPV (in/sec) at 25 feet
Small Bulldozer	0.003
Jackhammer	0.035
Loaded Trucks	0.076
Large Bulldozer	0.089
Plate Compactor	0.23

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment (May 2006).

As shown in the table above, structures located more than 25 feet from construction operations would not experience groundborne vibration above the Caltrans thresholds. Given that the Haystack Channel is bound by residential streets on the north and south, most construction activities would occur more than 25 feet from any existing structures. While the vibration generated by plate compactors, if used, could exceed the Caltrans threshold for human annoyance, it is expected that most of such construction activity would occur more than 25 feet from occupied buildings. While residents in the immediately vicinity of the Project site may detect groundborne vibration during construction activities, impacts would be temporary and would end once construction is complete. As stated above, construction activities would also be limited by the daytime operations hours provided in §9.24.070 of the City's Municipal Code. Groundborne vibration will not be generated during long-term Project operation. Impacts would therefore be less than significant.

c) **No Impact.** The Project site is not located within the vicinity of a private airstrip or within two miles of a public airport or public use airport. The nearest airports are the Bermuda Dunes and Palms Springs Airports, located approximately 6.25 and 9.6 miles from the subject site, respectively. The Project would thus not expose people residing or working in the area to excessive noise levels related to airport operations. There would be no impact.

Mitigation Measures: None required.

Monitoring and Reporting: None required.

XIV. POPULATION AND HOUSING Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				✓
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				✓

Sources: E-5 City/County Population and Housing Estimates, California Department of Finance, January 1, 2022; 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Demographics and Growth Forecast Technical Report, Southern California Association of Governments, September 2020.

Setting

The population of the City of Palm Desert was 50,889 as of January 2022. The Southern California Association of Governments (SCAG) projects it will grow to 64,100 by 2045. The housing stock includes 36,058 single-family, multi-family, and mobile home units, the majority of which (39.8%) are single-family detached homes. The average household size in the City is 2.05 persons.[11] The proposed Project is located in a residential neighborhood.

Discussion of Impacts

a) **No Impact.** The Project proposes the rehabilitation of an existing drainage channel which runs parallel to Haystack Road from State Highway 74 to Portola Avenue. No changes to the length or course of the existing Haystack Channel are proposed under the Project. Proposed improvements include the replacement of the existing drain system with infiltration pipe, the installation of underground storage/infiltration chambers at existing storm drains, and the replacement of damaged irrigation. Given that the channel already exists on the site and the nature of the proposed improvements, the proposed Project is not expected to indirectly induce any population growth. Given that no homes or businesses are proposed, the Project would also not directly induce growth. There will be no impacts.

b) **No Impact.** The Project property is occupied by the existing Haystack Channel and the walking path that runs parallel to it. The channel has existed on the subject site for decades. No housing occurs on the site. The Project would not displace any existing people or housing or necessitate replacement housing elsewhere. No impact will occur.

CEQA Plus: Supplemental Analysis

Socio-Economic/Environmental Justice Impacts to Minority or Low-Income Areas

The proposed Project will not result in disproportionate adverse environmental justice, socio-economic, or safety impacts to a minority or low-income population. The construction phase of the Project may result in temporary and short-lived inconveniences for residents, including disruptions due to construction diversions. Construction noise and other temporary impacts will be less than significant and are directed to substantial long-term improvements in the quality of life for current and future residents in this area.

[11] E-5 City/County Population and Housing Estimates, California Department of Finance, January 1, 2022.

This socio-economic segment of the population occupying the project area is generally middle and upper-middle-income. The proposed infrastructure improvements will provide families residing in the community with safe and reliable flood protection. The project, therefore, is expected to result in substantial direct long-term benefit to the local population.

Mitigation Measures: None required.

Monitoring and Reporting: None required.

XV. PUBLIC SERVICES **Would the project result in:** Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
Fire protection?			✓	
Police protection?			✓	
Schools?				✓
Parks?			✓	
Other public facilities?			✓	

Sources: City of Palm Desert General Plan, 2016; City of Palm Desert General Plan Update & University Neighborhood Specific Plan Draft Environmental Impact Report, 2016.

Setting

Fire Protection

The City of Palm Desert contracts with the State of California (CalFire) and Riverside County Fire Department (RCFD) for fire protection services. Riverside County Fire Station 67 at 73200 Mesa View Drive in Palm Desert, approximately 2,600 square feet south of the subject site, serves the Project area. This station appears to be within a 5-minute response time. Palm Desert has a total Fire Department staff of 44 positions at the three stations within the City limits. Backup support is available from Station No. 55 in Indian Wells and Stations No.50 and No.69 in Rancho Mirage.

Police Protection

Police protective services are provided by the Palm Desert Police Department (PDPD) under contract with the Riverside County Sheriff Department. The City is served by the sheriff's station located at 73-705 Gerald Ford Drive, approximately 5.8 miles north of the Project site. The PDPD is staffed by 80 sworn deputy officers, 36 of which are dedicated to the patrol division, with the remaining dedicated to special assignments such as the Traffic Division, Special Enforcement Team, Motorcycle Enforcement Unit, K-9 Officer, Business District Team, School Resource Officers, Coachella Valley Violent Crime Gang Task Force, and Narcotics Enforcement. In 2016, when the City's general plan Update EIR was written, Palm Desert has an officer-to-population ratio of 1.4 sworn officers per 1,000 residents. In 2013, the response time to the highest priority calls was within 5.58 minutes.

Schools

Palm Desert is within the jurisdictions of two school districts: Desert Sands Unified School District (DSUSD) and Palm Springs Unified School District (PSUSD). The Project site is within the boundary of the DSUSD. The nearest elementary school is Washington Elementary School on Portola Avenue, approximately 5,000 feet northeast of the Project site.

Parks
The City currently operates and maintains 200 acres of park land in 12 parks. The nearest public park to the Project is the City of Palm Desert Ironwood Park, approximately 250 feet south of the subject site. The Project alignment and lands in the vicinity of Portola Drive are also important open space lands that provide linear multi-modal paths and an expanded and landscape open space area just west of Portola Drive and south of the channel alignment. Access to portions of the adjoining sidewalk and open space areas may be temporarily closed or restricted during construction. Once construction is completed access to the existing paths and sidewalks, and the existing open space areas near Portola Ave will not be significantly impacted by the proposed Project.

Other Public Facilities
Other public facilities in Palm Desert include the Palm Desert Library, Joslyn Center (senior services), City Hall, and other government facilities. None of these facilities will be affected by the proposed Project.

Discussion of Impacts

Fire Protection:

Less Than Significant Impact. The City will require the Project contractor to prepare a Construction Traffic Control Plan to ensure emergency access to the subject site and the surrounding residential neighborhoods is maintained throughout construction. Once rehabilitated is completed, the Haystack Channel will not adversely affect the provision of fire protection in this area of Palm Desert, nor would it result in the need for new or physically altered facilities. The Project will therefore have a less than significant impact on fire protection services.

Police Protection:

Less Than Significant Impact. As stated above, a Construction Traffic Control Plan will be prepared for the Project to ensure that emergency access and generally mobility is maintained in the Project area. The rehabilitation of the existing Haystack Channel will not generate a significant additional demand for policy protection. The Project would therefore have less than significant impacts on police protection.

Schools:

No Impact. The proposed channel rehabilitation does not include any residential units of habitable structures and would not result in a permanent increase in the local population. It would therefore not result in any impacts to school enrollment and would not require the provision of new or additional facilities. The Project will have no impact on schools.

Parks/ Other Public Facilities:

Less Than Significant Impact. The Project would not result in any land development or population increase that could generate long-term demand for parks or other public facilities. As discussed in Section XVI, below, the subject site is used by some residents as a walking trail and open space area. During construction, the site would be closed for public access, which may temporarily increase demand on other parks in the area. However, the disruption in use of the Haystack Channel site would be temporary, and any associated impacts to public parks would be expected to be marginal. Overall, the Project's impacts on public services and facilities are expects to be less than significant.

Mitigation Measures: None required

Monitoring and Reporting: None required

XVI. RECREATION Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			✓	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			✓	

Sources: City of Palm Desert General Plan, 2016; City of Palm Desert website, accessed March 2023; City of Palm Desert General Plan Update & University Neighborhood Specific Plan Draft Environmental Impact Report, 2016 (SCH 2015081020); Project materials.

Setting

The City maintains and operates over 200 acres of parkland in 12 public parks, two community centers, an aquatic center, and over 25 miles of multi-purpose trails. The City also partners with the Desert Recreation District to provide recreational programs and activities. Other recreational facilities in Palm Desert include a municipally owned golf course and the Family YMCA of the Desert in Civic Center Park. The nearest public park to the Project is the City's Ironwood Park, approximately 250 feet south of the subject site The City boundaries also encompass or is in proximity to numerous public and private golf courses, large open space reserves, the Santa Rosa and San Jacinto Mountains National Monument, and other local and regional recreational resources.

A meandering sidewalk currently runs parallel to the channel along the entire 1.3 miles of the subject site. The Haystack Channel itself is also used as a walking trail and passive open space. Access to portions of the adjoining sidewalk and open space areas may be temporarily closed or restricted during construction. Once construction is completed access to the existing paths and sidewalks, and the existing open space areas near Portola Ave will not be significantly impacted by the proposed Project.

Discussion of Impacts

a, b) **Less Than Significant Impact.** During construction of the Project, all or portions of the channel and the associated sidewalk will temporarily be closed for recreational use. This could temporarily result in a marginal increase in the use of existing parks in the neighborhood. Long-term, however, the rehabilitation of the Haystack Channel is expected to have no impacts on its current use as a greenway. Its rehabilitation will therefore not significantly increase the use of existing neighborhood and regional parks in the long term, and no physical deterioration of such facilities is expected to occur as a result.

During construction on the Project, the existing sidewalk will remain in place, and the loss or relocation of in-channel vegetation will be minimized to the greatest extent practicable. The Project maintains the open space at Portola Ave and does not require the construction or expansion of recreational facilities which might have a significant adverse physical effect on the environment. Impacts will be less than significant.

Mitigation Measures: None required

Monitoring and Reporting: None required

XVII. TRANSPORTATION Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			✓	
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?				✓
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				✓
d) Result in inadequate emergency access?				✓

Sources: City of Palm Desert General Plan (2016), City of Palm Desert Municipal Code.

Setting

Haystack Road abuts and runs parallel to the Haystack Channel project area on the south side of the site. According to the City's General Plan, Haystack Road is designated as a Collector Street, which consist of a two-lane undivided roadway. Haystack Road is designated for a Class 2 (Striped Lane) bicycle and golf cart facility (Genera Plan Figure 4.2). The road exists in its fully improved condition, with two lanes of traffic, as well as sidewalks, on-street parking, and striped bicycle lanes on both sides.

Other roadways in the Project vicinity include Calliandra Street and Amir/Marrakesh Drive, which both run parallel to the north side of the channel, as well as Alamo Drive, Heliotrope Drive, and Portola Avenue, which each intersect the Haystack Channel. With the exception of Portola Avenue, these roadways are all designated as Local Streets. South of the channel, Portola Avenue is designated as a Secondary Street, and north of the channel it is designated as a Balanced Arterial. Portola Avenue is also designated as a Class 2 (Striped Lane) bicycle and golf cart facility.

There are no transit routes in the Project vicinity.

The Haystack Channel currently does not generate any traffic, nor would it during future, post-rehabilitation operations. During the proposed channel rehabilitation, temporary traffic associated with construction activities may occur, as well as potential traffic disruptions. The Project staging area is planned for a CVWD-owned parcel located at the northwest corner of the channel and Portola Avenue, adjacent to the eastern portion of the channel project (see Sheet 7 of the Project Plans).

Discussion of Impacts

a) **Less Than Significant Impact.** The streets surrounding the Project site are fully built out, and the channel is bound on the south by existing active transportation facilities, including an on-street bicycle lane and meandering sidewalk. The Project is not expected to affect local intersection and roadway levels of service (LOS). Project traffic will focus on individual channel segments along its length and will terminate once the rehabilitation is completed. This would have a less than significant impact on LOS. The Project will not conflict with the goals and policies in the City General Plan Mobility Element.

Construction of the Project could involve temporary impacts to traffic flow on surrounding roadways. These impacts would be limited in scope and intensity, and would shift along the Project alignment as work is accomplished. Appropriate traffic management and control measures will be followed during construction period, including compliance with the policies provided in Chapter 12.04 of the Municipal Code. For example, permission of the director of public works is require prior to any temporary lane closures or other temporary encroachments on public streets. Adherence with these policies will ensure that the Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system. Impacts would be less than significant.

b) **No Impact.** CEQA Guidelines section 15064.3, subdivision (b), which took effect in 2020, requires all lead agencies to adopt vehicle miles traveled (VMT) as a replacement for automobile delay-based level of service (LOS) for analyzing transportation impacts. A limited amount of vehicle trips, and associated VMT, would result from construction of the proposed Project. Upon completion of construction, the proposed channel rehabilitation would not generate VMT. Given that the Project would not generate VMTs during operations, it can be concluded that the channel rehabilitation will not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b), and there will be no impacts related to VMT.

c, d) **No Impact.** The channel rehabilitation Project does not propose the construction of new roadways or improvements. It would therefore not result in any hazardous design features including sharp curves, dangerous intersections, or hazardous geometric features. Nor would any changes be made to the existing roadways in the area such that emergency access would be impeded. The Project will not generate vehicle trips during operations and, therefore, no hazards would result from incompatible uses.

As previously stated, appropriate traffic management and control measures will be followed during construction period, including compliance with the policies provided in Chapter 12.04 of the Municipal Code. This will ensure that no hazards result due to road conditions during construction of the proposed channel rehabilitation, including when construction equipment enters and leaves the site. Any construction activities that could temporarily disrupt circulation on surrounding roadways, including emergency access or evacuation, must be coordinated with the City. Overall, the Project will not increase hazards or result in inadequate emergency access, and impacts will be less than significant.

Mitigation Measures: None required.

Monitoring and Reporting: None required.

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

Sources: Identification and Evaluation of Historic Properties, Haystack Channel Rehabilitation Project, CRM TECH, July 16, 2023; City of Palm Desert Draft EIR Technical Background Report, August 27, 2015.

Setting

As discussed in Section V, Cultural Resources, the Coachella Valley is the traditional home of the Cahuilla people. Anthropologists generally divide the Cahuilla into three groups based on their geographic setting: the Pass Cahuilla of the San Gorgonio Pass-Palm Springs area, the Mountain Cahuilla of the San Jacinto and Santa Rose Mountains and the Cahuilla Valley, and the Desert Cahuilla of the eastern Coachella Valley.

Today, Native Americans of Pass or Desert Cahuilla heritage are mostly affiliated with one or more of the reservations in and near the Coachella Valley, including Agua Caliente, Morongo, Cabazon, Torres Martinez, and Augustine.

Tribal Cultural Resources

CEQA defines tribal cultural resources as a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is included on a local register of historical resources (PRC §5020.1(k)), or that is listed as a historical resource in the California Register (PRC §5024.1(c)).

The following discussion of impacts is primarily based on the findings of the cultural resources study conducted for the Project by CRM TECH in July, 2023 (see Appendix C of this IS/MND).

Discussion of Impacts

a. i, ii) Less Than Significant with Mitigation. As stated in Section V, Cultural Resources, the records search at the EIC found that the Project's area of potential effects (APE) had not been previously surveyed for cultural resources, and no cultural resources had been recorded within or adjacent to the APE. The field survey also did not find any potential cultural resources, including buildings, structures, objects, sites, features or artifacts. Furthermore, given the disturbance of sediments in the channel, and the distribution of known prehistoric resources identified by the records search, the geoarchaeological analysis concluded that the archaeological sensitivity of the vertical (subsurface) APE is relatively low.

The State of California Native American Heritage Commission (NAHC) conducted a search of the Sacred Lands File at the request of CRM TECH on February 8, 2023. The results of the Sacred Lands File search were negative.

CRM TECH contacted the nearby Agua Caliente Band of Cahuilla Indian, as well as representatives of ten other tribes in the region, for input: Agua Caliente Band of Cahuilla Indians, Augustine Band of Cahuilla Mission Indians, Cabazon Band of Mission Indians, Cahuilla Band of Indians, Los Coyotes Band of Cahuilla and Cupeño Indians, Morongo Band of Mission Indians, Quechan Tribe of the Fort Yuma Reservation, Ramona Band of Cahuilla Indians, Santa Rosa Band of Cahuilla Indians, Soboba Band of Luiseño Indians, and the Torres-Martinez Desert Cahuilla Indians.

The Augustine Band requested notification if any resources are discovered during the Project. The Santa Rosa Band had no comments regarding the Project. The Quechan Tribe, Cahuilla Band, and the Soboba Band deferred to Native American groups closer in proximity to the Project site. The Agua Caliente Band, the nearest Native American group to the Project site, requested copies of all cultural resource documentation generated for the Project. The Agua Caliente were also invited to participate in the field survey of the APE but were unable to attend.

Assembly Bill 52 (AB 52)
Consistent with the requirements of AB 52, the City conducted Tribal Consultation. This consultation included outreach to the Cabazon Band of Mission Indians, the Soboba Band of Luiseno Indians, the Torres-Martinez Desert Cahuilla Indians, and the Twenty-Nine Palms Band of Missions Indians. There were no responses within the 30-day period within which to request consultation.

Summary of Impacts
Overall, none of the sources consulted during the cultural resources survey found evidence of resources occurring within the Project's APE, including tribal cultural resources. In the event that buried cultural materials are discovered during earth-moving operations associated with the proposed channel rehabilitation, all work in the immediate area shall be halted or divert until a qualified archaeologist can evaluate the find (**CUL-1**). With implementation of this mitigation measure, it can be concluded that the Project would not cause a substantial adverse change in the significance of a tribal cultural resources. Impacts will be less than significant with mitigation.

Mitigation Measures:
See Section V, Cultural Resources.

Monitoring and Reporting:
See Section V, Cultural Resources.

XIX. UTILITIES AND SERVICE SYSTEMS Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			✓	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				✓
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				✓
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			✓	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				✓

Sources: County of Riverside Integrated Waste Management Plan (1996). CalRecycle Solid Waste Information System (SWIS) https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/5189?siteID=4186 (accessed June 2023); Project Rehabilitation Plans prepared by ERSC, February 2023.

Setting

Domestic Water

The Project site is within the Coachella Valley Waste District (CVWD) service area for domestic water. CVWD has a 12-inch water line that lies beneath and passes perpendicular to the east segment of the channel. The primary water source for domestic water is groundwater extracted through a system of wells from the Whitewater River subbasin. CVWD is responsible, under the California Water Code, for analyzing its current and future water supply and assuring that sufficient supply is available to serve land uses within the District, through the preparation of an Urban Water Management Plan (UWMP).

Wastewater Treatment

CVWD provides sewer service to the City of Palm Desert, including the Project area. Effluent from the City is conveyed to CVWD's Cook Street treatment plant (Water Reclamation Plant No. 10).

Stormwater Management
CVWD is responsible for regional drainages in the City, while the City is responsible for and maintains smaller drainages such as the subject Haystack Channel. There are five stormwater channels in Palm Desert: Whitewater River Stormwater Channel and its tributaries, including Dead Indian Creek, the Deep Canyon Channel, the Palm Valley System, and the East Magnesia Channel. The Haystack Channel was constructed to intercept north-flowing tributary flows, including those delivered by sub-drainage areas and facilities, and flows crossing Haystack Road, and to convey them to the Portola Avenue culvert and into a series of golf course drainage system systems farther east. These flows ultimately make their way to the Whitewater River Stormwater Channel, approximately 1,400 feet west of Washington Street.

Electric Power and Natural Gas
Southern California Edison (SCE) provides electrical services to the Project area. Many neighborhoods were developed prior to the undergrounding of electric facilities and have overhead power lines. An existing overhead power line occurs on and crosses perpendicular to the Project site and at least one pole will require relocation out of the channel.

Natural gas is provided by the Southern California Gas Company (SoCalGas or SCG). SCG has both 2-inch and 3-inch distribution lines that cross and lie perpendicular to the channel, being carried across the channel bridge crossings.

Solid Waste
Burrtec Waste and Recycling Services, LLC (Burrtec) provides solid waste disposal to the City through a franchise agreement. Non-hazardous household, commercial, and most nonhazardous industrial solid waste collected is taken to the Edom Hill Transfer Station, which is permitted to receive 3,500 tons of waste per day. From there, solid waste is transported to the Lamb Canyon regional landfill, which is operated by the County of Riverside and had a remaining capacity of 19,242,950 cubic yards as of 2015 (latest available data as of June, 2023).

Discussion of Impacts

a-c) Less than Significant Impact.

Water
The proposed channel rehabilitation project will not generate any long-term water demand and Project water demand will be limited to that needed for site watering, hydroconsolidation and other construction purposes. Potholing will be conducted prior to finalization of the channel rehabilitation plans to ensure that water lies are protected in place. There will therefore be less than significant impacts on the local water supplier's ability to serve reasonably foreseeable future development during normal, dry, and multiple dry years.

The Project will not require a new connection to existing domestic water lines, nor will it otherwise require or result in the relocation or construction of new or expanded water facilities. Construction water is expected to be accessed from nearby fire hydrants. No environmental significant impacts to facilities or supplies will occur as a result.

Wastewater
The rehabilitation of the Haystack drainage channel will not generate any wastewater. It therefore will not require the relocation or construction of new or expanded wastewater treatment facilities, nor will it impact the available capacity of any wastewater treatment plants. There will be no impacts related to wastewater.

Stormwater Drainage

The Project proposes the rehabilitation of the existing Haystack Channel. It will therefore involve construction on the existing drainage facility. The Project will not involve any significant extensions or expansions of the channel, only improvements to the existing facilities. Impacts will therefore be limited to the subject site, which has previously been disturbed during the construction of the existing channel. As detailed in this Initial Study, no significant adverse effects will occur to the existing drainage facility as a result of the proposed channel rehabilitation. Impacts will therefore be less than significant.

Electricity

The proposed Project will require the relocation or elimination of an existing South California Edison power pole. The currently encroaching power pole does not appear to be necessary, as it occurs a short distance (approximately 33 feet) from a pole farther south. The current power line alignment is expected to be used by SCE.

Natural Gas

The Project will not use natural gas during construction or operations, nor will it require the relocation or construction of new or expanded natural gas facilities. There will be no impacts related to natural gas.

Telecommunications

The Project will not require the relocation or construction of new or expanded telecommunications facilities. However, poles carrying communication lines on the above referenced SCE power pole will be affected by the relocation or elimination on one pole. The effects of reconfiguring of SCE power poles, and the associated communication lines will be less than significant.

d, e) **Less than Significant Impact.** The proposed channel rehabilitation project will not generate solid waste during long-term operations. During construction of the proposed channel improvements, some construction-related waste may be generated, including concrete and wood framing, both of which are recyclable. The generation of this waste would be limited and temporary, and would not exceed any State or local standards, nor would it be in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. All construction debris must be disposed of in accordance with local and state requirements, including those provided in the County of Riverside Integrate Waste Management Plan. Impacts will be less than significant.

Mitigation Measures: None required

Monitoring and Reporting: None required

XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			✓	
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			✓	
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			✓	
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			✓	

Sources: City of Palm Desert General Plan, 2016; Project materials; Google Earth Pro 7.3.3.7786; Fire Hazard Severity Map, CalFire, https://egis.fire.ca.gov/FHSZ/, accessed March 2022; Project Rehabilitation Plans prepared by ERSC, February 2023.

Setting

Wildfires can occur in undeveloped areas and spread to urban areas. The California Department of Forestry and Fire Protection (CalFire) has mapped areas of significant fire hazards in the state through its Fire and Resources Assessment Program (FRAP). These maps identify fire hazard severity zones (FHSZ) based on a hazard scoring system using subjective criteria for fuels, fire history, terrain influences, housing density, and occurrence of severe weather where urban conflagration could occur.

While the southernmost portions of Palm Desert border areas susceptible to the risk of wildland fires, the Project site is within a developed area. The subject property is designated as a local responsibility area (LRA) and is located approximately 1.3 miles from the nearest area as a very high fire hazard severity zone (VHFHSZ).

Discussion of Impacts

a-d) **Less Than Significant Impacts.** As noted in Section IX.f) above, the City's Local Hazard Mitigation Plan (LHMP) includes priority actions to mitigate hazards, as well as actions to coordinate plans and resources in the event of an emergency. The proposed Project would not impair or interfere with an adopted emergency response or evacuation plan. According to the City's General Plan, key evacuation routes in the city include Monterey Avenue, Portola Avenue, Cook Street, and Washington Street.

While construction activities associated with the Project would involve temporary impacts to Haystack Road or Calliandra Street, neither of these streets are considered key evacuation routes. Furthermore, the construction would be temporary, and a construction access plan will be required by the City to assure the Project does not interfere with emergency access during construction. Overall, impacts will be less than significant.

The subject site is a Local Responsibility Area and is more than a mile from the nearest VHFHSZ. The Project proposes the rehabilitation of a drainage channel and will not involve any residential buildings or other occupied structures. There will be no occupants potentially at risk of wildfire hazard. The channel will generally maintain the existing drainage pattern, and therefore would not be expected to expose people or structures to significant risks as a result of drainage changes. Impacts will be less than significant.

Mitigation Measures: None required

Monitoring and Reporting: None required

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

a) Less than Significant with Mitigation.

Biological Resources:
As discussed in Section IV above, a biological resources assessment was conducted for the Project and adjacent lands, which are comprised primarily of residential development to the north and south and local streets. The eastern edge of the channel is adjacent the Living Desert Zoo and Gardens located on the east side of Portola Avenue. The western section of the Project area contains an engineered swale which is covered in maintained turf grass and lined buy landscaping trees. The swale has some concrete structures which collect nuisance waters from irrigation runoff and stormwater. The section of the channel east of Heliotrope Drive is an engineered sandy, natural bottom channel with a mix of native and non-native vegetation.

No special status or sensitive plant or animal species were found or suspected on occupying the Project site or vicinity. As previously noted, the subject lands and the City are located within the development impact mitigation fee area of the Coachella Valley MSHCP. Mitigation Measure BIO-1 requires the conducting of pre-construction nesting bird surveys if construction is planned during the February 1 through August 31 nest season.

While neither burrowing owl nor their sign were identified during site surveys, Mitigation Measure BIO-2 requires that a burrowing owl habitat assessment be conducted no less than 60 days prior to the Project's start to further ensure that the owl is not impacted by the Project. Also included is BIO-3, which requires a

bat survey be conducted during sensitive times of the year. And Mitigation Measure BIO-4 requires that any post-construction landscaping use plant materials approved by the Coachella Valley MSHCP.

Therefore, the Project will not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal.

Cultural Resources:
As discussed in detail in Section V of this IS/MND, the Project site is not expected to harbor either sensitive cultural or historic resources. Mitigation Measure CUL-1 requires that if potential resources are identified during site disturbance, work shall be halted in that area and a qualified professional will be called in to evaluate and, if necessary, mitigate the find prior to continued work at that location. Therefore, the Project is not expected to eliminate or significantly impact important examples of the major periods of California history or prehistory.

b) Less than Significant Impact.

The Project is not expected to result in any impacts that are or may be considered to be cumulatively considerable. The Project is limited to the rehabilitation of an existing and long-established stormwater channel located within an urbanized portion of the City. Once rehabilitation work has been completed, the channel and vicinity will be left essentially in the same condition as it was before the Project is implemented. No cumulatively considerable impacts are expected to result from implementation of the Project.

c) Less than Significant with Mitigation.

There is a limited and less than significant risk that implementation of the proposed Project will result in or cause substantial adverse effects on human beings, either directly or indirectly. The rehabilitation project will re-establish full channel capacity and will stabilize those portions of the channel that are currently susceptible to scour and erosion. Construction will be conducted under the supervision of the City and is not expected to adversely impact local residents or the traveling public.

Appendix A

CalEEMOD Air Quality and GHG Modeling

(Available on City website link below)

https://www.palmdesert.gov/home/

showpublisheddocument/34297/638309013438

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Appendix B

Biological Resources Assessment Report

(Available on City website at link below)

https://www.palmdesert.gov/home/

showpublisheddocument/34299/638309014341

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Appendix C

Cultural Resources Survey

"Reviewers wishing to review this report must contact the Project CEQA Planner, Nick Melloni at the following email address: nmelloni@palmdesert.gov".

Only qualified professionals can be provided a copy of this report."

Appendix D

Technical Memorandum and Channel Improvement Plans

(Available on City website at link below)

https://www.palmdesert.gov/home/

showpublisheddocument/34301/638309018740830000