

City of Carlsbad Trails Master Plan

Final
Initial Study/Mitigated Negative Declaration

SCH No. 2017041006
Project Number: GPA 2017-0001

June 2018

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Final

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SCH No. 2017041006
Project Number: GPA 2017-0001

Prepared for:

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June 2018

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INTRODUCTION AND MEMORANDUM TO THE FINAL INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, an Initial Study (IS)/Mitigated Negative Declaration (MND) was prepared by the City of Carlsbad (city) for the city's Trails Master Plan. The Draft IS/MND was submitted to the State Clearinghouse (SCH) and the Governor's Office of Planning and Research and circulated for a 34-day public review period beginning on April 3, 2017, and ending on May 5, 2017 (SCH No. 2017041006). During that time, the document was reviewed by various state and local agencies, as well as by interested individuals and organizations.

The Final IS/MND is presented herein with changes incorporated after the completion of public review; revisions are identified in the Revisions or Clarifications to the Draft IS/MND section below. CEQA Guidelines Sections 15073.5(a) and (b) states that recirculation is required when an MND has been substantially revised, which is defined as:

- (1) A new, avoidable significant effect is identified and mitigation measures or project revisions must be added in order to reduce the effect to insignificance, or;
- (2) The lead agency determines that the proposed mitigation measures or project revisions will not reduce potential effects to less than significance and new measures or revisions must be required.

Section 15073.5(c) also adds that recirculation is not required under the following circumstances:

- (1) Mitigation measures are replaced with equal or more effective measures pursuant to Section 15074.1.
- (2) New project revisions are added in response to written or verbal comments on the project's effects identified in the proposed negative declaration which are not new avoidable significant effects.
- (3) Measures or conditions of project approval are added after circulation of the negative declaration which are not required by CEQA, which do not create new significant environmental effects and are not necessary to mitigate an avoidable significant effect.
- (4) New information is added to the negative declaration which merely clarifies, amplifies, or makes insignificant modifications to the negative declaration.

No new information has been presented in the Final IS/MND that would require recirculation of the Draft IS/MND pursuant to CEQA Guidelines Section 15073.5. Specifically, no new significant environmental impacts would result from the new information in the Final IS/MND. The trail segments added to the IS/MND (1D, 2C, 6A, 12I, and 12J) would result in potentially significant biological and/or cultural resources impacts; however, these impacts are similar to impacts for other trail segments and would be covered under the Draft IS/MND mitigation measures. Mitigation measures Bio-1 and Cul-1 have had minor revisions to include these projects in the list of projects the measures are applicable to; in addition, mitigation measure Bio-7 has been refined based on public comments received during public review to clarify how potential impacts would be reduced. With this new information, these mitigation measures are not considerably different from those analyzed in the Draft IS/MND, and these mitigation measures would reduce the potentially significant impacts to less than significant. Other updates to the Final IS/MND listed below are new information to clarify, amplify, or to make insignificant modifications to the Draft IS/MND. Finally, the Draft IS/MND included adequate information for a meaningful public review and comment; the Final IS/MND has not been changed in such a way that deprives the public of

a meaningful opportunity to comment upon a substantial adverse environmental effect of the Trails Master Plan or a feasible way to mitigate or avoid a substantial environmental effect.

REVISIONS OR CLARIFICATIONS TO THE DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Subsequent to the circulation of the Draft IS/MND, a number of revisions or clarifications were made to the analysis. Those changes are described below in ~~strike-out~~/underline format to signify deletions and inserts in the Final IS/MND text. The Final IS/MND has incorporated these revisions.

1. Notice of Intent to Adopt a Mitigated Negative Declaration and Mitigated Negative Declaration – The number of new trail segments and trail mileage has been revised to reflect additional trails added:

The Trails Master Plan includes ~~41~~46 new trail segments to be developed by the city, private applicant, or other public agency that would expand the existing trails network by an additional 41.0 ~~38.0~~ miles.

2. Project Description – This section has been revised to incorporate descriptions of the new trail segments:

Under the “Future Trail Development” heading on page 2 of the Final IS/MND, this sentence was revised:

The Trails Master Plan includes ~~41~~46 new trail segments that would expand the existing trails network by an additional ~~38.0~~ 41.0 miles.

Within Table 1, the following rows have been modified or added:

Table 1 TRAIL PROJECTS PROPOSED TO BE DEVELOPED BY THE CITY OF CARLSBAD			
Trail Segment	Trail Name/ Trail Type	Entity	Description
<u>1D</u>	<u>Buena Vista Lagoon South Shore Trail</u> Type 1	<u>City of Carlsbad (public); CDFW (public); Private Development</u>	<u>This nature trail is proposed on the top bluff of the Buena Vista Lagoon's south shore, and is consistent with the Local Coastal Program which requires a public access in the coastal zone. Improvement cost includes decomposed granite surface and basic trail-head amenities such as trail identification and trail regulation signs, dog station and trash receptacle.</u>
<u>2C</u>	<u>Buena Vista Creek Reserve</u> Type 1	<u>City of Carlsbad (public)/CDFW (public)</u>	<u>Trail would be located within CDFW ecological reserve and subject to their approval.</u> <u>Improvements to include decomposed granite surface and trail-head amenities.</u>
5B	<u>Village H South (Carlsbad Village Drive to Tamarack Avenue)</u> Type 2	<u>City of Carlsbad (public)</u>	<u>Development of Trail 5B would be divided into two phases. The part of the trail that is the historic trail near Victoria Avenue would require minimal improvements and would be opened soon after the land transfer to the city. The other part of the trail connecting to Tamarack Avenue would open at a later date, and would require further environmental analysis, planning and construction work. New construction to include an 8-foot wide trail consisting of decomposed granite, including trail-head amenities and fencing.</u>
<u>6A</u>	<u>Carlsbad Highlands Reserve Trail</u> Type 1	<u>City of Carlsbad (public)/CDFW (public)</u>	<u>Trail would be located within CDFW ecological reserve and subject to their approval.</u> <u>Improvements to include decomposed granite surface and trail-head amenities.</u>

Within Table 2, the following rows have been modified or added:

Trail Segment	Trail Name / Trail Type	Entity	Notes
12D	Batiquitos Lagoon extension (Batiquitos Drive to Arenal Drive) Type 21	Batiquitos Lagoon Foundation	New construction to include <u>84-foot wide decomposed granite surface, wood edging, trail-head amenities, and fencing.</u>
<u>12I</u>	<u>South Ponto Trail</u> Type 1	<u>Private development</u>	<u>New construction to include a decomposed granite surface or native soil surface and trail-head amenities. Fencing may be required in some locations to protect sensitive habitat.</u>
<u>12J</u>	<u>Ponto Drive Trail</u> Type 4	<u>Private development</u>	<u>New construction to include a roadside trail consisting of firm surface, such as stabilized decomposed granite, concrete curb, and trail-head amenities. Trail should be separate from the road with a minimum 5-foot wide buffer.</u>

Table 4 has also been revised to reflect the updated mileage for the existing City of Carlsbad trails:

Trail Type	Trail Description	Existing Mileage
<i>Open Space Recreational Trails (unpaved)</i>		
1	Nature Trail	<u>41.911.5</u>
2	Recreation Trail	<u>30.827.5</u>
3	Wide Dirt Trail or Utility Roadbed	<u>40.211.0</u>
Total		<u>52.949.9</u>
<i>Circulation Trails (mostly paved)</i>		
4	Roadside or Connector Trails	<u>7.47.8</u>
5	Connector Sidewalks	n/a*
6	Multi-use Paved Path or Trail (Class 1)	<u>7.97.8</u>
Total		<u>45.015.6</u>
TOTAL EXISTING TRAIL MILEAGE		<u>67.966.5</u>

*Connector sidewalks are not counted in the overall trail mileage.

3. Aesthetics (Section I) – The text of the first sentence under Item I.a on page 17 has been revised to clarify that lagoons are also part of scenic vistas:

Scenic vistas within the city primarily consist of scenic corridors and views to and from the coastlines and the lagoons.

4. Biological Resources (Section IV) – The text of Item IV.a has been revised as follows to incorporate the added trail segments and, based upon public comments, to update the significance of Trail 5C and add the trail to mitigation measure Bio-1.

Page 23, the first paragraph:

Proposed trails were identified as having no constraints with respect to biological resources (see Figure 6, Trail Segments with Biological Resource Constraints, for trail constraints) were either already analyzed in a prior CEQA document (see Table 3) or will be located within an existing disturbed and/or developed area (e.g., utility roadbeds) that lack sensitive biological resources and would therefore not impact sensitive species are 1A, 2A, 2B, 5A, ~~5C~~, 7A (segment under and east of I-5), 7F, 7G, 8A, 8C, 8D, 8E, 9B, 9E, 9F, 9G, 10A, 12A, 12B, 12C, 12G, and 13A.

Page 23, the second paragraph, fourth sentence:

The Trails Master Plan projects that would be developed by the city, private applicants or other public agencies that were identified as having low constraints and needing a project-specific biological survey are 5C, 7D, 9A, 9C, ~~and 10B~~, and 12J.

Page 23, the third paragraph, fifth sentence:

The Trails Master Plan projects that would be developed by the city, private applicants or other public agencies identified as having high constraints and needing a project-specific biological surveys are: 1D, 2C, 5B, 7A (west of I-5), 6A, 7B, 7C, 7H, 8B, 9D, 12D, ~~and 12E~~, and 12I.

Page 23, the fourth paragraph, second sentence:

Certain trails have been specifically planned within existing utility easements or dirt trails and would be contained within existing access road footprints. These trails include 1B, 1C, 2A, 5A, ~~5C~~, 10C, 10D, 12F, and 13A.

The first three paragraphs of mitigation measure Bio-1 on page 24 have also been revised to add the new trails:

BIO-1: Project-Specific Biological Surveys. *Prior to approval of any development for Trails Master Plan projects 1D, 2C, 5B, 5C, 7A (west of I-5), 6A, 7D, 8B, 9D, and 10B, a project-specific biological survey shall be conducted by the city to verify potential direct and indirect impacts to sensitive biological resources.*

Prior to approval of any development for Trails Master Plan projects 7B, 7C, 7H, 9A, 9C, 12D, ~~and 12E~~, 12I, and 12J, a biological survey shall be conducted by the private applicant or other public agency developing the trail to verify potential direct and indirect impacts to sensitive biological resources.

Trails Master Plan projects 1B, 1C, 2A, 5A, ~~5C~~, 10C, 10D, 12F, 12H, and 13A shall be contained within disturbed and developed areas associated with the existing utility roadbed or dirt trail footprints.

The second paragraph of mitigation measure Bio-3 on page 25 has been revised to add in a missing connecting word:

Trails Master Plan projects with the potential to impact least Bell's vireo, southwestern willow flycatcher, and Harbison's dun skipper butterfly shall implement the required specific measures identified in the city's HMP to meet conservation standards for these species.

Based upon public comments, mitigation measure Bio-7 on page 27 has been revised to clarify the preferred method for non-native invasive removal:

BIO-7: Non-Native Invasive Inspection and Removal. *As part of the city's routine maintenance inspections and where trails occur within or immediately adjacent to HMP Preserve areas, the city shall inspect trail edges for sign of non-native invasive plant species listed on the California Invasive Plant Inventory prepared by the California Invasive Plant Council (Cal-IPC 2006). If non-native invasive plant species are confirmed present within these areas, the city shall coordinate with the HMP Preserve Manager to determine the specific actions and responsibilities for treatment and removal. The specific actions and responsibilities will be performed in accordance with long-term management directives and requirements prescribed for the affected HMP Preserve area. Where such directives and requirements have not been prescribed and cannot be provided by the HMP Preserve Manager, they shall include the following, at a minimum:*

a. The least toxic method that effectively removes the weeds shall be used. The preferred method would not use chemicals. This can be accomplished through hand weeding along the linear elements of the trail. Other non-chemical means includes mowing before seeds are set.

a.b. If herbicides must be used for non-native invasive removal, At the direction of the Preserve Manager, invasive plants shall be treated with herbicides and left in place or removed and disposed of at an approved off-site location, such as the Waste Management facility at 5960 Reef Circle, Carlsbad, California. This would be performed in accordance with the city's Integrated Pest Management (IPM) plan, updated in November 2017. The updated plan emphasizes the initial use of organic pesticides, limiting the use of chemical pesticides where children and the general public congregate, and when pests cannot be managed by other methods, using USEPA-level pesticides in a targeted manner and only if deemed necessary to protect public safety or economic loss.

b.a. The least toxic method that effectively removes the weeds shall be used.

The first two sentences under Item IV.b on page 27 has been revised to incorporate the additional trail segments and to reflect the updated significance of Trail 5C:

Trails Master Plan projects 1D, 2C, 5B, 6A, 7A (west of I-5), 7D, 8B, 9D, and 10B (to be implemented by the city) and 7B, 7C, 7H, 9A, 9C, 12D, and 12E, 12I, and 12J (to be implemented by private applicant or another public agency) have the potential to impact riparian habitat and/or sensitive natural communities, including the city's HMP habitat types. Trails Master Plan projects 1B, 1C, 2A, 5A, 5C, 10A, 10C, 10D, 12F, 12H, and 13A shall be contained within disturbed and developed areas associated with the existing foot trail and access road footprints; therefore, no impacts on sensitive habitat are anticipated.

The second sentence under Item IV.c on page 28 has been revised to incorporate the additional trail segments:

The Trails Master Plan projects that would be developed by the city, private applicants or other public agencies that were identified as potentially impacting wetlands are: 1D, 2C, 5B, 6A, 7A (west of I-5), 7B, 7C, 7D, 8B, 9D, and 12D.

5. Cultural Resources (Section V) – The fifth sentence under the fourth paragraph of Item V.b on page 32 has been revised as follows to incorporate the added trail segments:

The Trails Master Plan projects that would be developed by the city, private applicants, or other public agencies that were identified by the constraints report as having high constraints needing a project-specific record search and cultural survey are: 1D, 2C, 6A, 7B, 7C, 7D, 7E, 9C, 9D, 12D, and 12E, 12I, and 12J.

The first two paragraphs of mitigation measure Cul-1 under Item V.b on page 32 have been revised to add in the new trails:

CUL-1: Project-level Cultural Resources Record Search & Consultation. *Prior to approval of any development for Trails Master Plan projects 1A, 1B, 1C, 1D, 2A, 2C, 5A, 5B, 5C, 6A, 7A (west of I-5), 7D, 7E, 7G, 8A, 8B, 9D, 10A, 10B, 10C, 10D, 12A, 12F, 12H, and 13A, a project-specific cultural resources record search and consultation with the appropriate organizations, California Native American tribes, and individuals shall be conducted by the city as part of the environmental review process.*

Prior to approval of any development for Trails Master Plan projects 7B, 7C, 7H, 9A, 9C, 12D, ~~and 12E, 12I, and 12J,~~ a project-level cultural resources record search and consultation with the appropriate organizations, California Native American tribes, and individuals shall be conducted as part of the environmental review process by the private applicant or other public agency.

6. Geology and Soils (Section VI) – The second sentence of the second paragraph under Item VI.a.iii on page 36 has been revised as follows to incorporate the added trail segments:

Specific Trails Master Plan projects in liquefaction areas according to Figure 3.5-3 of the General Plan EIR include 1B, 1C, 2C, 7A (west of I-5), 7D, 7E, and 10B for projects to be built by the city and 7B, 9A, 12D, ~~and 12E, 12I, and 12J~~ for projects to be built by developers or other public agencies.

7. Hazards and Hazardous Materials (Section VIII) – The second sentence of Item VIII.e on page 42 has been revised as follows to incorporate the added trail segments:

Trails Master Plan improvements are located as close as 0.75 mile from McClellan-Palomar Airport. Approximately eight projects to be built by the city, private applicants or other public agencies are located within two miles of the airport (6A, 7C, 7E, 9A, 9C, 9D, 10C, 10D, and 12F.)

8. Land Use and Planning (Section X) – The text within Table 5 under Item X.b on pages 51 and 52 has been revised as follows to incorporate the added trail segments and to move a header to its correct position:

Table 5 DEMONSTRATION OF GENERAL PLAN CONSISTENCY	
General Plan Goals & Policies	Consistency
Open Space, Conservation, and Recreation Element Policies	
Open Space Framework Goal 4-G.1 Develop a balanced and integrated open space system reflecting a variety of considerations- resource conservation, production of resources, recreation, and aesthetic and community identity- and ensuring synergies between various open space components and compatibility with land use planning.	Implementation of the Trails Master Plan would assist in implementation of this goal.
Beaches; Parks and Recreation Goal 4-G.8 Coordinate the planning of park facilities and trails with other recreation-oriented land uses such as open space. 4-G.10 Increase public access to and use of the Cannon Road Open Space, Farming and Public Use Corridor primarily through the incorporation of public trails and active and passive recreation.	Trail 7C, South Shore Agua Hedionda Lagoon trail is a Type 1 nature trail that provides access to this public use corridor.
Trails and Greenways Goal 4-G.11 Utilize greenways and trails to connect the city's open space network.	Implementation of the Trails Master Plan would utilize greenways and trails to connect the city's open space network.
Open Space, Conservation, and Recreation Element Policies	
Trails and Greenways Policy 4-P.41 Participate with other north county communities to establish an intercommunity open space linkage program and regional trail network.	At the time when trail segments that terminate or are in close proximity to city boundaries are proposed (such as Trails 1B, <u>2C</u> , <u>6A</u> , 9D, 9E, 9F, 12A), the city should coordinate with other jurisdictions, such as the cities of Oceanside, Encinitas, and Vista to establish potential linkages with other community trails.
Trails and Greenways Policy 4-P.42 Locate multi-use trails and associated amenities and passive recreational features to minimize impacts to sensitive habitats and other sensitive surrounding land uses, such as residences.	Individual trail segments would need to conform to this policy to ensure consistency. Trails <u>1D</u> , <u>2C</u> , 5B, <u>6A</u> , 7A (west of I-5), 7B, 7C, 7H, 8B, 9A, 9D, 12D, and 12E , and <u>12I</u> have been identified as having a moderate to high potential for biological constraints.

Arts, History, Culture, and Education Element Policies	
<p>Archaeological and Paleontological Resources Policy 7-P.8 During construction of specific development projects, require monitoring of grading, ground-disturbing, and other major earthmoving activities in previously undisturbed areas or in areas with known archaeological or paleontological resources by a qualified professional, as well as a tribal monitor during activities in areas with cultural resources of interest to local Native American tribes. Both the qualified professional and tribal monitor shall observe grading, ground-disturbing, and other earthmoving activities.</p>	<p>Individual trail segments would need to conform to this policy to ensure consistency. Trails <u>1D, 2C, 5B, 6A, 7A (west of I-5), 7B, 7C, 7D, 7E, 7H, 9A, 9C, 9D, 12A, 12D, 12E, and 12F, 12I, and 12J</u> have been identified as having a moderate to high potential for cultural resource constraints.</p>

The first sentence under Table 5 on page 53 has been revised as follows to incorporate the added trail:

Proposed trails within the coastal zone include 1A, 1B, 1D, 7A (west of I-5), 7B, 7C, 7D, 7E, 7G, 7H, 8A, 8B, 10A, 10B, 10C, 10D, 12A, 12D, 12E, 12F, ~~and 12H, 12I, and 12J.~~

9. Noise (Section XII) – The first sentence of Item XII.e on page 59 has been revised as follows to incorporate the added trail segments:

Eight of the projects proposed to be built by the city, private applicants, or other public agencies are located within 2 miles of the airport (6A, 7C, 7E, 9A, 9C, 9D, 10C, 10D, and 12F).

10. Earlier Analysis Used and Supporting Information Sources – The following references have been added on page 74:

8. City of Carlsbad Integrated Pest Management Plan. November 2017.
9. Trail Changes Made Since 2006 Environmental Report. City of Carlsbad, 2009.
10. Memorandum of Understanding Between the San Diego Association of Governments and the City of Carlsbad Police Department Regarding the City of Carlsbad, A Municipal Corporation on Behalf of its Open Space Enforcement Program. Agreement No. 5004937. July 1, 2017.
11. 5-Year Wetland Mitigation & Monitoring Plan for the Lake Calavera Trails Master Plan Boardwalk Improvements Project. Dudek & Associates, August 2012.

11. Figures 4, 5, and 6 – These figures have been revised to incorporate the new trail segments. Figures 4 and 5 have been revised to show Trail 12D as a Type 1 trail and Trail 9A as a Type 2 trail. The figures have also been revised to show the revised alignment for Trail 5B.

In addition to the updates in the Final IS/MND, the Biological and Cultural Constraints Report was revised to incorporate the new trail segments.

Mitigation Monitoring and Reporting Program

A Mitigation Monitoring and Reporting Program (MMRP) has been included as Appendix B to this Final IS/MND, which has been prepared in response to Section 15097 of the State CEQA Guidelines. The State CEQA Guidelines require that an MMRP be adopted upon certification of an IS/MND to ensure mitigation measures identified in the IS/MND are implemented. Implementation of the MMRP for the Trails Master Plan is the responsibility of the City of Carlsbad.

Response to Comments

A letter was received from the Governor's Office of Planning and Research indicating that the SCH had submitted the Draft IS/MND to selected state agencies for review; this letter is included in Appendix C. Written comments were received during the public review period from the following agencies: California Department of Transportation (Caltrans); U.S. Fish and Wildlife Service and California Department of Fish and Wildlife; and the California Coastal Commission. Written comments were also received from the following organizations: San Diego Gas & Electric; Citizens for North County; Preserve Calavera; San Pacifico Community Association; Pala Band of Mission Indians; San Diego County Archaeological Society, Inc; Rincon Band of Luiseno Indians; and the San Luis Rey Band of Mission Indians. In addition, written comments were received from 14 individuals. Parts of the Draft IS/MND were updated based upon the comments received (see above in the Revisions or Clarifications to the Draft IS/MND section). The comments and city responses to the comments are included as Appendix C to the Final IS/MND.



**NOTICE OF INTENT TO ADOPT A
MITIGATED NEGATIVE DECLARATION**

PROJECT NAME: CITY OF CARLSBAD TRAILS MASTER PLAN
PROJECT NO: GPA 2017-0001
PROJECT LOCATION: City of Carlsbad, California

PROJECT DESCRIPTION: The Trails Master Plan is a planning document proposed for use as a comprehensive reference for the future development and maintenance of the city’s trail system. The Trails Master Plan is consistent with the Land Use and Community Design; Mobility; Open Space, Conservation, and Recreation; and Arts, History, Culture, and Education Elements of the city’s General Plan, and implements the community’s vision to have a fully connected trail system to provide more opportunities for active living and to create new, non-vehicular connections to destinations through appropriate standards and design guidelines. The Trails Master Plan includes 46 new trail segments to be developed by the city, private applicant, or other public agency that would expand the existing trails network by an additional 41.0 miles. A General Plan Amendment (GPA) will be processed to incorporate by reference the Trails Master Plan.

PROPOSED DETERMINATION: The City of Carlsbad has conducted an environmental review of the above described project pursuant to the Guidelines for Implementation of the California Environmental Quality Act (CEQA) and the Environmental Protection Ordinance of the City of Carlsbad. As a result of said review, the Initial Study identified potentially significant effects on the environment, but there will not be a significant effect in this case because the mitigation measures described in the Initial Study have been added to the project. Therefore, a **Mitigated Negative Declaration (MND)** will be recommended for adoption by the City of Carlsbad City Council.

AVAILABILITY: A copy of the Initial Study documenting reasons to support the proposed MND is on file in the Planning Division, 1635 Faraday Avenue, Carlsbad, California 92008 and is available online at: <http://www.carlsbadca.gov/services/depts/planning/agendas.asp>.

COMMENTS: Comments from the public are invited. Pursuant to Section 15204 of the CEQA Guidelines, in reviewing MNDs, persons and public agencies should focus on the proposed finding that the project will not have a significant effect on the environment. If persons and public agencies believe that the project may have a significant effect, they should: (1) identify the specific effect; (2) explain why they believe the effect would occur; and (3) explain why they believe the effect would be significant. Written comments regarding the draft MND should be directed to Pam Drew, Associate Planner at the address listed below or via email to pam.drew@carlsbadca.gov. Comments must be received within 30 days of the date of this notice.

The proposed project and MND are subject to review and approval/adoption by the Planning Commission and City Council. Additional public notices will be issued when those public hearings are scheduled. If you have any questions, please call Pam Drew, Associate Planner in the Planning Division at (760) 602-4644.

PUBLIC REVIEW PERIOD March 31 – May 5
PUBLISH DATE March 31

MITIGATED NEGATIVE DECLARATION

PROJECT NAME: CITY OF CARLSBAD TRAILS MASTER PLAN
PROJECT NO: GPA 2017-001
PROJECT LOCATION: City of Carlsbad, California

PROJECT DESCRIPTION: The Trails Master Plan is a planning document proposed for use as a comprehensive reference for the future development and maintenance of the city’s trail system. The Trails Master Plan is consistent with the Land Use and Community Design; Mobility; Open Space, Conservation, and Recreation; and Arts, History, Culture, and Education Elements of the city’s General Plan, and implements the community’s vision to have a fully connected trail system to provide more opportunities for active living and to create new, non-vehicular connections to destinations through appropriate standards and design guidelines. The Trails Master Plan includes 46 new trail segments to be developed by the city, private applicant, or other public agency that would expand the existing trails network by an additional 41.0 miles. A General Plan Amendment (GPA) will be processed to incorporate by reference the Trails Master Plan.

DETERMINATION: The City of Carlsbad has conducted an environmental review of the above described project pursuant to the Guidelines for Implementation of the California Environmental Quality Act (CEQA) and the Environmental Protection Ordinance of the City of Carlsbad. As a result of said review, the Initial Study identified potentially significant effects on the environment, and the City of Carlsbad finds as follows:

Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on the attached Mitigation Monitoring and Reporting Program (MMRP) have been added to the project.

A copy of the Initial Study documenting reasons to support the MND is on file in the Planning Division, 1635 Faraday Avenue, Carlsbad, California 92008.

ADOPTED: _____

ATTEST:

David de Cordova
Principal Planner

1. **PROJECT NAME:** City of Carlsbad Trails Master Plan
2. **PROJECT NO.:** GPA 2017-0001
3. **LEAD AGENCY:**
City of Carlsbad
1635 Faraday Avenue
Carlsbad, CA 92008
4. **PROJECT APPLICANT:**
City of Carlsbad
1635 Faraday Avenue
Carlsbad, CA 92008
5. **LEAD AGENCY CONTACT PERSON:** Pam Drew, Associate Planner, 760-602-4644, pam.drew@carlsbadca.gov
6. **PROJECT LOCATION:** The City of Carlsbad Trails Master Plan (Trails Master Plan) provides a plan for the trails system within the City of Carlsbad (city), California (see Figure 1, *Regional Location*, and Figure 2, *Project Location*). The Trails Master Plan focuses on trail connections within parks, open space, and beach areas of the city.
7. **GENERAL PLAN LAND USE DESIGNATION:** N/A
8. **ZONING:** N/A
9. **PROJECT DESCRIPTION**

The Trails Master Plan is a planning document proposed for use as a comprehensive reference for the future development and maintenance of the city's trail system. The Trails Master Plan is consistent with the Land Use and Community Design; Mobility; Open Space, Conservation, and Recreation; and Art, History, Culture, and Education Elements of the city's General Plan, and implements the community's vision to have a fully connected trail system to provide more opportunities for active living and to create new, non-vehicular connections to destinations through appropriate standards and design guidelines.

Trails Master Plan Objectives

Trails and greenways offer community benefits as places for exercise and solitude, and also play a key role in physically connecting the community and creating a network of open spaces. Currently there are approximately 66.5 miles of trails in the City of Carlsbad. The Open Space, Conservation, and Recreation Element of the City of Carlsbad's General Plan (2015) includes a specific policy (4-P.40) that calls for the preparation of a Trails Master Plan update that expands the existing and planned trail system, with the following objectives:

- Connectivity between off-road trails and major on-road pedestrian and bicycle routes, such that future improvements in the trail system also contribute to linkages between important sites (beaches, lagoons, schools, commercial centers, master planned communities, and others).
- Design and designate trails as multi-use to be accessible for all user groups, including walkers, joggers, and bicyclists (as land use policy allows). Ensure that the network provides an appropriate amount of resources for each trail type or user group.

- Greenway and trail linkages from major recreational/open space areas to other land use areas or activities, including, but not limited to, residential neighborhoods, places of employment, parks, schools, libraries, and viewpoints.
- Linkages/multi-use trails connecting businesses and residential neighborhoods to the coastline and beaches.

Trails Master Plan Trail Types

The proposed Trails Master Plan includes a network of circulation or roadside (paved and unpaved) and open space (unpaved) trails that span the city and provide connectivity between neighborhood destinations and natural resources. The trails are categorized into the following types:

- Type 1: Nature Trail
- Type 2: Recreational Trail
- Type 3: Wide Dirt Trail or Utility Roadbed
- Type 4: Unpaved Roadside Trail
- Type 5: Sidewalk Connector
- Type 6: Paved Multi-use Trail

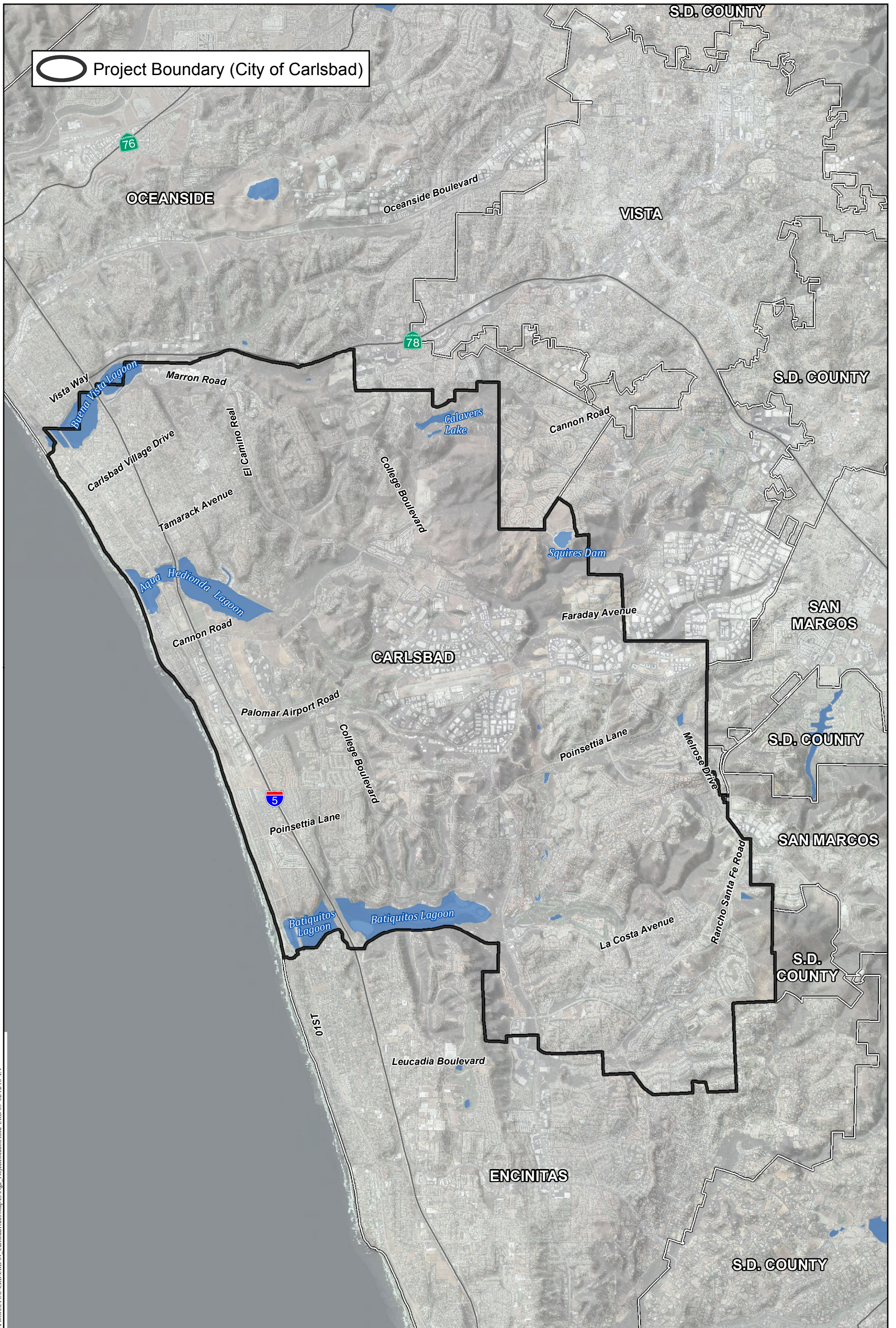
Figures 3a, 3b, and 3c, *Trail Types*, displays a simulation of each type of trail. Figure 3d displays pictures of some trail types. The trail design guidelines provided in Chapter 6 of the Trails Master Plan describe the characteristics of each trail type, including what should be expected in terms of width, trail surface, steepness, firmness of the surface, and amenities. Depending on the type of trail proposed and the user levels and types, various amenities and improvements may be proposed, including trailhead kiosks, trash receptacles, signage, public art, viewpoints and rest areas, and fencing. Staging and trailhead areas at major trail system access points may include shade trees or structures, seating areas, bicycle racks, water fountains, interpretive and directional signage, trash receptacles, off-street parking, and security lighting. Temporary or permanent restrooms may be constructed, where applicable, if demand warrants it.


Future Trail Development

The Trails Master Plan includes 46 new trail segments that would expand the existing trails network by an additional 41.0 miles. Figure 4, *Existing and Proposed Trails*, displays the existing and proposed circulation and open space trails included in the Trails Master Plan in relation to existing transportation routes and the current open space network. Figure 5, *Proposed Trail Segments*, identifies the proposed trail segments by trail segment number and type.

Chapter 5, Table 5.1 of the Trails Master Plan includes proposed trail segments categorized by segment ID, trail name, length, trail category, development entity, and project type. The “*Development Entity*” is the public agency or private developer that would be responsible for implementing the trail segment.

Table 1, *Trail Projects Proposed to be Developed by the City of Carlsbad*, identifies the individual trail segments within the Trails Master Plan that would be constructed by the city, as well as those for which the city would be jointly responsible with another public agency

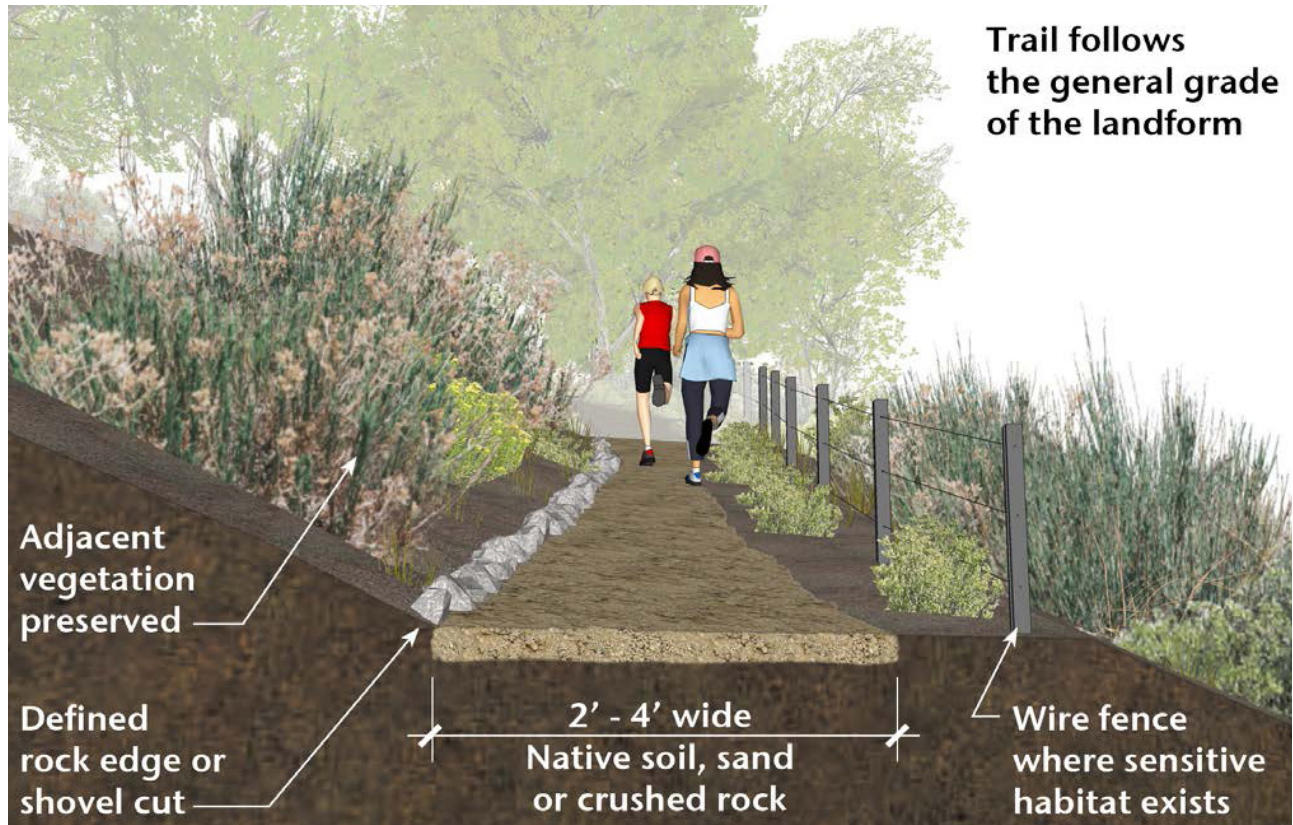


 Project Boundary (City of Carlsbad)

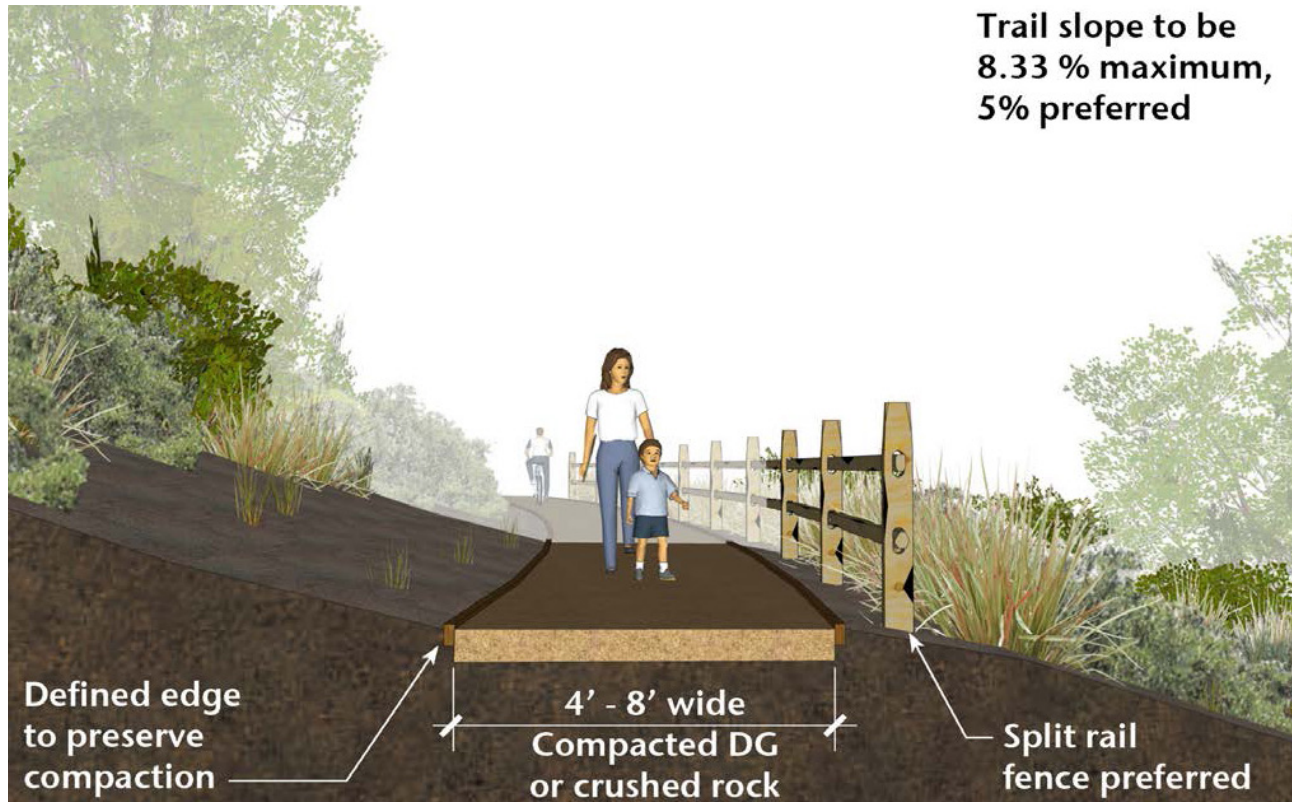
Project Location

CARLSBAD TRAILS MASTER PLAN

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Type 1: Nature Trail



Type 2: Recreational Trail

Source: Carlsbad Trails Master Plan, 2015

Trail Types

CARLSBAD TRAILS MASTER PLAN

Figure 3a

No fencing or amenities when shared with utility access

Trail follows the general grade of the topography



Type 3: Wide Dirt Trail or Utility Roadbed

Meandering walkway with tree plantings

Trail slope to be 5% maximum, 2% cross slope



Type 4: Roadside Trail

Source: Carlsbad Trails Master Plan, 2015

Trail Types

CARLSBAD TRAILS MASTER PLAN



Type 5: Sidewalk Connector



Type 6: Paved Multi-use Trail

Source: Carlsbad Trails Master Plan, 2015

Trail Types

CARLSBAD TRAILS MASTER PLAN



Type 2: Recreational Trail



Type 3: Utility Corridor



Type 4: Roadside Trail



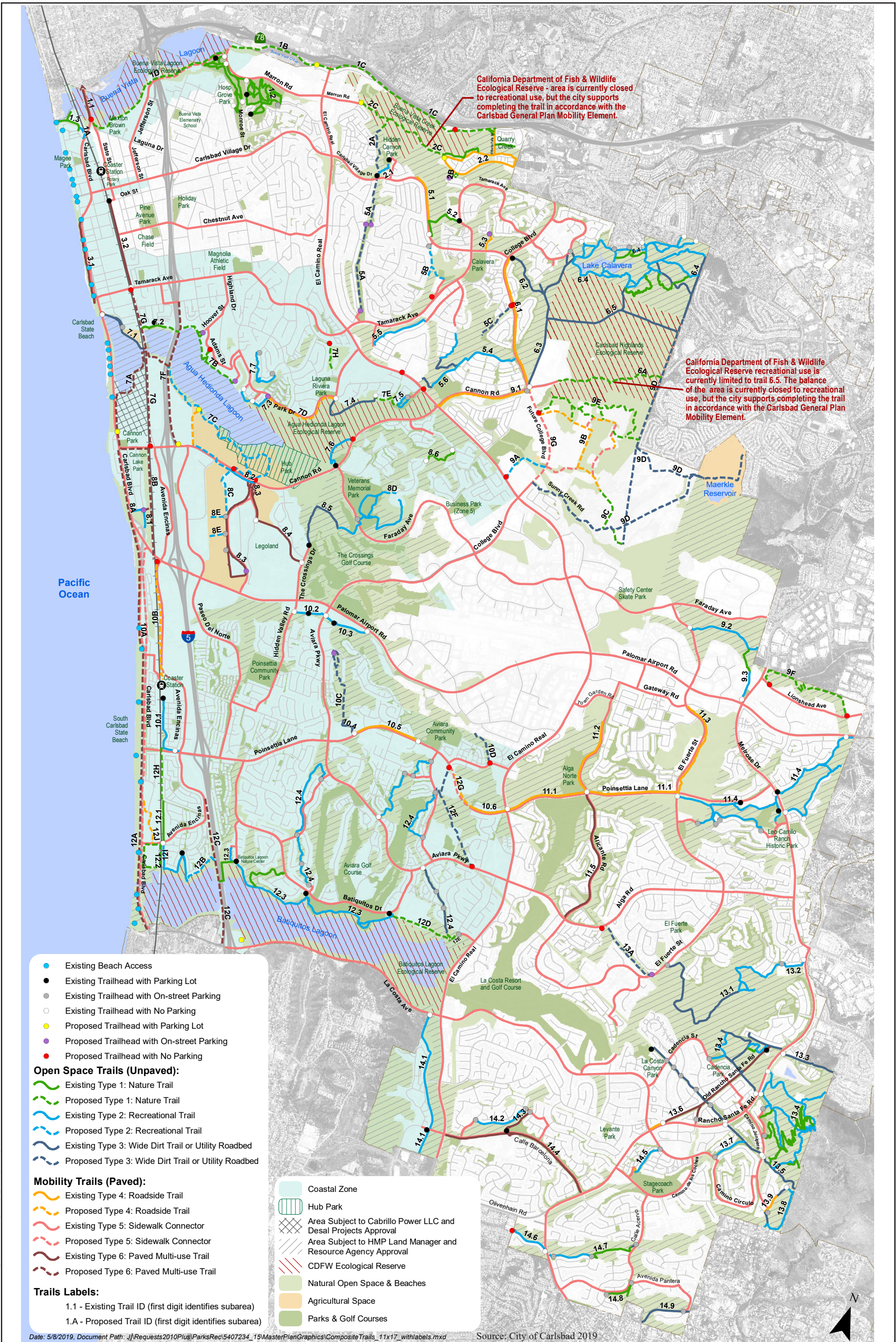
Type 6: Paved Multi-use Trail

I:\PROJECTS\CRB\CRB-04_Carlsbad\Trails\Map\SI\Fig3d_Photos.mxd CRB-05 02/10/16 -EV

Source: Carlsbad Trails Master Plan, 2015

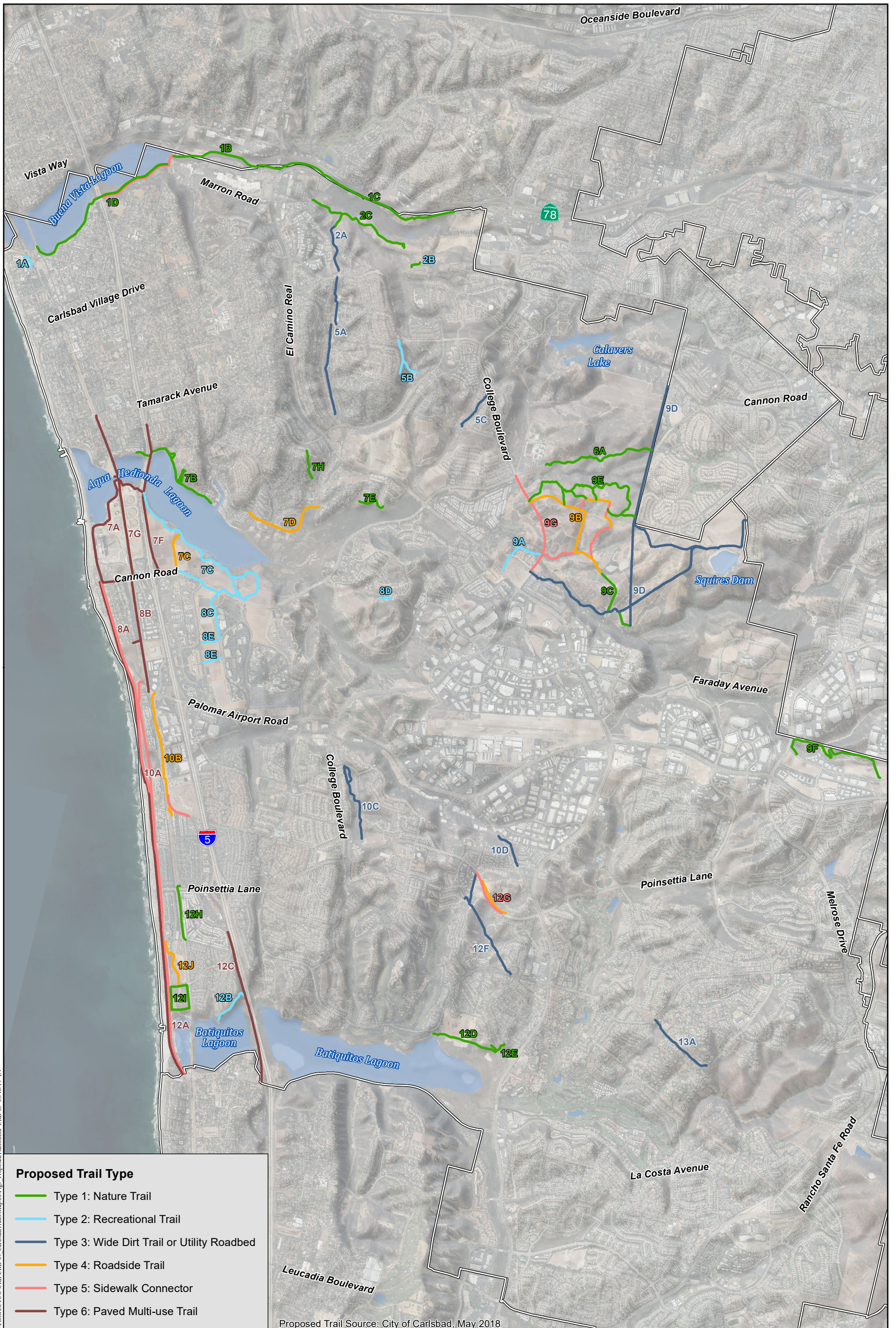
Trail Types

CARLSBAD TRAILS MASTER PLAN



Existing and Proposed Trails

CARLSBAD TRAILS MASTER PLAN



Proposed Trail Segments

CARLSBAD TRAILS MASTER PLAN

(such as the California Department of Transportation [Caltrans] and the California Department of Fish and Wildlife [CDFW]), a lagoon foundation, or private developer.

Note that two trails shown on Figure 4 are potential ecological reserve connecting trails (one east of Marron Road and one east of Cannon Road). Although these trails are included in the General Plan Mobility Element, they are not being considered for development at this time because they are located within CDFW ecological reserve lands, which are either closed for recreational uses per Section 550 of the California Code of Regulations (as is the case for the Buena Vista Creek Ecological Reserve), or limit recreational use to an existing trail (Carlsbad Highlands Ecological Reserve). Accordingly, these trails are excluded from the environmental analysis in this document. If these trails are considered for development in the future, they would undergo subsequent environmental review in accordance with CEQA.

Trail Segment	Trail Name/ Trail Type	Entity	Description
1A	Carlsbad Boulevard Buena Vista Lagoon overlook area Type 2	City of Carlsbad (public)	Construction would include decomposed granite surface, wood edging, and trail-head amenities and fencing.
1B	Haymar Road (from Marron Road to El Camino Real) Type 1	City of Carlsbad (public) within existing utility easement or roadside ROW	Improvements to include 4-foot wide nature trail constructed of decomposed granite surface and trail-head amenities. Part of trail is within City of Oceanside boundaries. The trail would be within the existing road ROW or existing utility easement and would not include disturbance below grade.
1C	Haymar Road (from El Camino Real to Quarry Creek Development) Type 1	City of Carlsbad (public) within existing utility easement or roadside ROW	Improvements to include decomposed granite surface and trail-head amenities. No disturbance below the grade and beyond existing road ROW.

**Table 1 (cont.)
TRAIL PROJECTS PROPOSED TO BE DEVELOPED
BY THE CITY OF CARLSBAD**

Trail Segment	Trail Name/ Trail Type	Entity	Description
1D	Buena Vista Lagoon South Shore Trail	City of Carlsbad (public); CDFW (public); private development	This nature trail is proposed on the top bluff of the Buena Vista Lagoon's south shore, and is consistent with the Local Coastal Program which requires a public access in the coastal zone. Improvement cost includes decomposed granite surface and basic trail-head amenities such as trail identification and trail regulation signs, dog station and trash receptacle.
2A	Hidden Canyon Park & North SDG&E utility road Type 3	City of Carlsbad (public) within existing utility easement	Project would be within an existing SDG&E utility roadbed footprint and subject to SDG&E's approval. No new construction would be required, since the trail is proposed within already existing utility corridors. Improvements may include trail repairs, erosion control, and trail-head signage.
2C	Buena Vista Creek Reserve Type 1	City of Carlsbad (public)/CDFW (public)	Trail would be located within CDFW ecological reserve and subject to their approval. Improvements to include decomposed granite surface and trail-head amenities.
5A	SDG&E corridor (Carlsbad Village Drive to Tamarack Ave) Type 3	City of Carlsbad (public) within existing utility easement	No new construction would be required, since the trail is proposed within the existing SDG&E utility roadbed footprint. Improvements may include trail repairs, erosion control, and trail-head signage.
5B	Village H South (Carlsbad Village Drive to Tamarack Avenue) Type 2	City of Carlsbad (public)	Development of Trail 5B would be divided into two phases. The part of the trail that is the historic trail near Victoria Avenue would require minimal improvements and would be opened soon after the land transfer to the city. The other part of the trail connecting to Tamarack Avenue would open at a later date, and would require further environmental analysis, planning and construction work.

Table 1 (cont.) TRAIL PROJECTS PROPOSED TO BE DEVELOPED BY THE CITY OF CARLSBAD			
Trail Segment	Trail Name/ Trail Type	Entity	Description
5C	SDG&E corridor (Calavera Hills 2) Type 3	City of Carlsbad (public) within existing utility easement	No new construction would be required, since the trail is proposed within an existing utility roadbed footprint. Improvements may include trail repairs, erosion control, and trail-head signage.
6A	Carlsbad Highlands Reserve Trail Type 1	City of Carlsbad (public)/CDFW (public)	Trail would be located within CDFW ecological reserve and subject to their approval. Improvements to include decomposed granite surface and trail-head amenities
7A (west of I-5)	Coastal Corridor (Cannon Park to Encinas Power Plant) Type 6	City of Carlsbad (public)	This segment of the trail will be located on the west side of I-5. After the current NRG plant and smoke stack are demolished, the city will work with NRG to determine the ultimate trail alignment. New construction may include paving, lighting, landscape buffers, irrigation, fencing, public art, and trail-head amenities.
7D	Park Drive Trail Type 4	City of Carlsbad (public)	The proposed trail will not exceed the current road footprint. Part of the Comprehensive Active Transportation Strategy program. New construction to include a roadside trail consisting of decomposed granite, concrete curb, and trail-head amenities.
7E	Hallmark East Trail Type 1	CDFW (public); AHLF (private); City of Carlsbad (public)	Habitat Mitigation and Monitoring Plan for the Hallmark East Mitigation Site does not cover this segment. Surveys may need to be required. New construction to include decomposed granite surface, wood edging, and trail-head amenities.

**Table 1 (cont.)
TRAIL PROJECTS PROPOSED TO BE DEVELOPED
BY THE CITY OF CARLSBAD**

Trail Segment	Trail Name/ Trail Type	Entity	Description
7G	Coastal Rail Trail Reach 3 (Tamarack Avenue to Cannon Road) Type 6	City of Carlsbad (public)	The city will work with NRG to determine the trail alignment. New construction will include paving, lighting, landscape buffers, irrigation, fencing, public art, and trail-head amenities. The trail would cross the Agua Hedionda Lagoon via a bridge that was approved as part of the Agua Hedionda Sewer Lift Station, Force Main, and Gravity Sewer Replacement Project (PDP 00-02) MND (SCH #2010081053). The bridge is proposed to accommodate the future coastal rail trail users. On September 12, 2012 the California Coastal Commission issued a CDP (6-12-003) for the bridge structure.
8A	Coastal Corridor (Cannon Road to Palomar Airport Road) Type 2	City of Carlsbad (public)	New construction to include paving, lighting, landscape buffers, public art, and trail-head amenities.
8B	Coastal Rail Trail (Cannon Road to Palomar Airport Road) Type 6	City of Carlsbad (public)	South of Manzano Drive, located on the State Lands parcel, which currently has existing trails. New construction to include paving, lighting, landscape buffers, irrigation, fencing, public art, and trail-head amenities.
9D	Utility pipeline trail Type 3	City of Carlsbad (public) within existing utility easement	Although the trail is proposed within an existing utility roadbed footprint, new trail connections may be required. Improvements may include trail repairs, erosion control, and trail-head signage.
10A	Coastal Corridor (Palomar Airport Road to Poinsettia Lane) Type 6	City of Carlsbad (public)	New construction to include paving, lighting, landscape buffers, irrigation, fencing, public art, and trail-head amenities.

**Table 1 (cont.)
TRAIL PROJECTS PROPOSED TO BE DEVELOPED
BY THE CITY OF CARLSBAD**

Trail Segment	Trail Name/ Trail Type	Entity	Description
10B	Coastal Rail Trail Reach 5 (Palomar Airport Road to Poinsettia Coaster Station) Type 4	City of Carlsbad (public); SANDAG; Caltrans	New construction to include decomposed granite path, concrete curb, and trail-head amenities.
10C	SDG&E utility road (Plum Tree Court to Poinsettia Lane) Type 3	City of Carlsbad (public)	No new construction will be required, since the trail is within an existing utility roadbed footprint. Development efforts may include trail repairs, erosion control, and trail-head signage.
10D	SDG&E utility road (Cassia Road to Camino Vida Roble) Type 3	City of Carlsbad (public)	No new construction would be required, since the trail is proposed within an existing utility roadbed footprint. Improvements may include trail repairs, erosion control, and trail-head signage.
12A	Coastal Corridor (Poinsettia Lane to Batiquitos Lagoon) La Costa Avenue Type 6	City of Carlsbad (public)	New construction to include paving, lighting, landscape buffers, irrigation, fencing, public art, and trail-head amenities.
12F	SDG&E utility road (Poinsettia Lane to Aviara Parkway) Type 3	City of Carlsbad (public)	No new construction would be required, since the trail is proposed within an existing utility roadbed footprint. Improvements may include trail repairs, erosion control, and trail-head signage.
12H	Lakeshore Gardens (within existing NCTD easement) Type 1	City of Carlsbad (public)	No new construction would be required, since the trail is proposed within an existing railroad easement. Improvements may include trail repairs, erosion control, and trail-head signage

Table 1 (cont.) TRAIL PROJECTS PROPOSED TO BE DEVELOPED BY THE CITY OF CARLSBAD			
Trail Segment	Trail Name/ Trail Type	Entity	Description
13A	SDG&E utility road (Alga Road to El Fuerte Street) Type 3	City of Carlsbad (public)	No new construction would be required, since the trail is proposed within an existing utility corridor. Improvements may include trail repairs, erosion control, and trail-head signage

AHLF = Agua Hedionda Lagoon Foundation; Caltrans = California Department of Transportation;
CDFW = California Department of Fish and Wildlife; ROW = right-of-way; NCTD = North County Transit District;
SANDAG = San Diego Association of Governments; SDG&E = San Diego Gas and Electric

Table 2, *Trail Projects that would be Developed by Private Applicants or other Public Agencies*, identifies trail segments that would be included as part of a private development project or developed by another public entity, and would require subsequent project-level environmental review by that entity prior to the construction of the trail.

Table 2 TRAIL PROJECTS THAT WOULD BE DEVELOPED BY PRIVATE APPLICANTS OR OTHER PUBLIC AGENCIES			
Trail Segment	Trail Name / Trail Type	Entity	Notes
7B	North Shore Agua Hedionda Lagoon trail (I-5 to Cove Drive) Type 1	Private development	New construction would include a 4-foot wide nature trail composed of decomposed granite surface and trail-head amenities.
7C	South Shore Agua Hedionda Lagoon trails (I-5 to Aqua Hedionda Lagoon Discovery Center) Type 2, 4	Private development	Environmental review will be completed with future private development. New construction to include 8-foot wide decomposed granite surface trail, wood edging, trail-head amenities, and fencing.
7H	Shayan Property Trail (High Ridge Avenue to Aura Circle) Type 1	Private development	New construction to include 4-foot wide decomposed granite trail and trail-head amenities.

Table 2 (cont.) TRAIL PROJECTS THAT WOULD BE DEVELOPED BY PRIVATE APPLICANTS OR OTHER PUBLIC AGENCIES			
Trail Segment	Trail Name / Trail Type	Entity	Notes
9A	Sunny Creek Road Type 2	Private development	New construction to include decomposed granite surface, wood edging, trail-head amenities, and fencing.
9C	Kato Trail Type 1	Private development	New construction to include 4-foot wide decomposed granite trail and trail-head amenities.
12D	Batiquitos Lagoon extension (Batiquitos Drive to Arenal Drive) Type 1	Batiquitos Lagoon Foundation	New construction to include 4-foot wide decomposed granite surface, wood edging, trail-head amenities, and fencing.
12E	Batiquitos Lagoon Trail (Choya Point to Arenal Drive) Type 1	Batiquitos Lagoon Foundation	New construction to include decomposed granite surface and trail-head amenities.
12I	South Ponto Trail Type 1	Private development	New construction to include a decomposed granite surface or native soil surface and trail-head amenities. Fencing may be required in some locations to protect sensitive habitat.
12J	Ponto Drive Trail Type 4	Private development	New construction to include a roadside trail consisting of firm surface, such as stabilized decomposed granite, concrete curb, and trail-head amenities. Trail should be separate from the road with a minimum 5-foot wide buffer.

Table 3, *Trail Projects that have Undergone or are Currently Undergoing California Environmental Quality Act (CEQA) Review*, identifies projects that have already undergone or are currently undergoing CEQA review. For these segments, no additional environmental review is required, and no further analysis is included in this document.

**Table 3
TRAIL PROJECTS THAT HAVE UNDERGONE OR ARE
CURRENTLY UNDERGOING CEQA REVIEW**

Trail Segment	Trail Name	Entity	CEQA Documentation
2B	Quarry Creek trails	Private development	Quarry Creek EIR 11-02, SCH #2012021039.
7A (segment under and east of I-5)	Coastal Corridor (Cannon Park to Encinas Power Plant)	City of Carlsbad (public)	Trail segment east of I-5 is included as part of the I-5 North Coast Corridor Project EIR/EIS 11-SD-KP R45.7/R89.1 (PM R28.4/R55.4), SCH #200401076 as part of proposed community enhancement CB#3.
7F	I-5 North Coast Bike Trail	Caltrans (public)	Trail segment included as part of the I-5 North Coast Corridor Project EIR/EIS 11-SD-KP R45.7/R89.1 (PM R28.4/R55.4), SCH #200401076.
8C	Floral Trade Center Trail	Private development	Carlsbad Floral Trade Center and Marketplace Negative Declaration, adopted December 4, 2013, (CUP 12-10).
8D	The Ocean View Point Trail (Connection to Veterans' Park)	Private development	Kirgis Tentative Map - GPA 03-01/ZC 03-01/LCPA 03-01/CT 02-06/HDP 02-01/CDP 02-05/ PUD 02-02; SCH #2003011089.
8E	Carlsbad Ranch Specific Plan	Private Development	EIR 94-01 – Specific Plan (SP 207)
9B	Cantarini Holly Springs	Private development	Analyzed as part of Cantarini/Holly Springs EIR 02-02, October 2004, SCH #2002101081.
9E	Cantarini open space trails	Private development	Cantarini/Holly Springs EIR 02-02, October 2004, SCH #2002101081.
9F	Carlsbad Raceway Park	City of Carlsbad (public)	Environmental analysis conducted as part of the Palomar Forum Project MND CT 99-06, February 2003, SCH #2001071073
9G	College Boulevard	City of Carlsbad (public)	Analyzed as part of Cantarini/ Holly Springs EIR 02-02, October 2004, SCH #2002101081.
12B	Rosalena trail (north shore of Batiquitos lagoon, near Navigator Circle, west side of I-5)	Private development	Rosalena Trail MND, adopted on October 20, 1993, was part of the Poinsettia Shores Master Plan (MP 175(D)). The trail was a condition of approval for a Coastal Development Permit (CDP 6-85-4830) issued by the California Coastal Commission. Environmental analysis was completed with the MND. A subsequent Biological Report has been completed and all mitigation will be on-site.

Table 3 (cont.) TRAIL PROJECTS THAT HAVE UNDERGONE OR ARE CURRENTLY UNDERGOING CEQA REVIEW			
Trail Segment	Trail Name	Entity	CEQA Documentation
12C	I-5 North Coast Bike Trail (La Costa Avenue to Avenida Encinas)	Caltrans (public)	Trail is part of the Caltrans Public Works Plan and Transportation Resource Enhancement Program (PWP/TREP). Environmental assessment was conducted as part of I-5 North Coast Corridor Project EIR/EIS 11-SD-KP R45.7/R89.1 (PM R28.4/R55.4), SCH #200401076.
12G	Poinsettia Lane/ Poinsettia 61	Private development	Trail segment was analyzed as part of Poinsettia 61 EIR 15-03, certified by City Council on March 14, 2017, SCH #2016031006.

Caltrans = California Department of Transportation; EIR = Environmental Impact Report;
MND = Mitigated Negative Declaration; SCH = State Clearinghouse

CEQA Requirements for Subsequent Actions

The scope of this document is limited to those elements of the Trails Master Plan where sufficient information exists to allow an informed evaluation of potential impacts. In accordance with Section 15145 of the CEQA Guidelines, those aspects of the Trails Master Plan (e.g., potential projects) for which insufficient information exists are considered speculative, and are not addressed in this Initial Study.

Each subsequent development action will be subject to its own project-specific CEQA review. Further CEQA compliance shall not be required for development conducted in accordance with the Trails Master Plan unless the proposed project meets one or more of the following conditions identified in CEQA Guidelines Section 15162:

- The proposed project is not sufficiently discussed in the MND or represents a substantial change from the actions addressed by the Trails Master Plan MND, and the change would require major revisions to the Trails Master Plan MND due to new significant environmental impacts or a substantial increase in the severity of impacts identified in the Trails Master Plan MND;
- Substantial changes have occurred in the circumstances under which the project would be undertaken that would require major revisions of the Trails Master Plan MND to disclose new, significant environmental effects or a substantial increase in the severity of the impacts identified in the Trails Master Plan MND; or
- There is new information of substantial importance not known at the time the Trails Master Plan MND was approved that shows any of the following:
 - The project would have any new significant effects not discussed in the Trails Master Plan MND;
 - There are impacts that were determined to be significant in the Trails Master Plan MND that will be substantially increased;

- There are additional mitigation measures or alternatives previously found not to be feasible that would substantially reduce one or more of the significant effects identified in the Trails Master Plan MND, and the project proponent declines to adopt those measures or alternatives; or
- There are mitigation measures or alternatives which are considerably different from those analyzed in the Trails Master Plan MND that would substantially reduce one or more significant impact, and the project proponent declines to adopt those measures or alternatives.

If subsequent environmental review is required, the city will prepare an Initial Study to determine the appropriate form of review. It is intended that this MND will be used by the city to provide the baseline and context for preparation of any required subsequent environmental documentation.

10. ENVIRONMENTAL SETTING/SURROUNDING LAND USES

The City of Carlsbad is a coastal community located in northwest San Diego County, 35 miles north of downtown San Diego. The City of Oceanside is located to the north, the City of Encinitas lies to the south, and the cities of Vista and San Marcos as well as unincorporated areas of San Diego County are located to the east. The project study area includes the entire City of Carlsbad (approximately 39 square miles) and focuses on the open space, parks, beaches, and the recreation and circulation trail system that connects these areas. City trails connect users to beaches, coastal resources, and other destinations, including parks and open space areas as well as the three lagoons located within the city: Buena Vista, Agua Hedionda, and Batiquitos Lagoons. A summary of existing city trails is provided in Table 4, *Summary of Existing City of Carlsbad Trails*, below.

Table 4 SUMMARY OF EXISTING CITY OF CARLSBAD TRAILS		
Trail Type	Trail Description	Existing Mileage
<i>Open Space Recreational Trails (unpaved)</i>		
1	Nature Trail	11.5
2	Recreation Trail	27.5
3	Wide Dirt Trail or Utility Roadbed	11.0
Total		49.9
<i>Circulation Trails (mostly paved)</i>		
4	Roadside or Connector Trails	7.8
5	Connector Sidewalks	n/a*
6	Multi-use Paved Path or Trail (Class 1)	7.8
Total		15.6
TOTAL EXISTING TRAIL MILEAGE		66.5

*Connector sidewalks are not counted in the overall trail mileage.

The city's park system includes a wide range of community and neighborhood parks with varying levels of active and passive facilities that are well distributed throughout the developed areas of the city. A large number of the smaller parks are located within residential developments and are maintained by Home Owner Associations (HOA) and reserved for the local residents of the development. Many of these smaller parks are near trail heads of the city's existing trail system. Open space is equally well distributed throughout the city, with hills

to the east, canyons leading to the beaches on the west, and lagoons reaching a significant distance inland.

Although a significant portion of the city is maintained as public parkland and open space systems, the remaining portion is privately owned and either currently developed or likely to be developed in the future. For larger parcels proposed for development, trail easements may be dedicated, and trails constructed as part of future projects. For the purposes of this plan, all properties where a trail easement has been negotiated or has been discussed represent an opportunity for a future trail.

11. OTHER REQUIRED AGENCY APPROVALS (i.e., permits, financing approval or participation agreements)

For trails located in close proximity to jurisdictional resources, the following permits may be required: Clean Water Act (CWA) Section 404 permit with U.S. Army Corps of Engineers (USACE), CWA Section 401 permit with Regional Water Quality Control Board (RWQCB), and California Fish and Wildlife Code Section 1602 Streambed Alteration Agreement with California Department of Fish and Wildlife (CDFW). Trails that require railroad right-of-way encroachment may require North County Transit District (NCTD) approval. California Department of Transportation (Caltrans) approval may be required for encroachment into Caltrans' right-of-way. For trails being developed in the coastal zone deferred certification areas, a CDP issued by the California Coastal Commission (CCC) may also be required.

12. CALIFORNIA NATIVE AMERICAN TRIBAL CONSULTATION. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has this consultation begun?

The San Luis Rey Band of Mission Indians (SLR) requested notification of projects for Assembly Bill (AB) 52 consultation from the city on June 22, 2015, for projects in which the city is the lead agency. Accordingly, the city contacted SLR regarding the project on January 28, 2016 and met with SLR on February 10, 2016. After the meeting, SLR requested formal tribal consultation specific to the project in a February 11, 2016 letter. In the letter, SLR requested consultation on alternatives, mitigation measures, and significant effects of the project, specifically with regards to tribal cultural resources. In addition, SLR requested they be sent any cultural resources assessments completed as part of the project. The Torres Martinez Desert Cahuilla Indians requested AB 52 consultation on May 11, 2016, but did not respond to follow up communication by the city. The Native American consultation process is ongoing.

13. PREVIOUS ENVIRONMENTAL DOCUMENTATION

Future development under the Trails Master Plan would be subject to the goals and policies identified in the General Plan, dated September 2015. In accordance with CEQA Guidelines Sections 15152 and 15168(c), the following analysis is tiered from the General Plan & Climate Action Plan Final Environmental Impact Report (General Plan EIR; State Clearinghouse No. 2011011004). The CEQA concept of "tiering" refers to the analysis of general environmental matters in broad program-level EIRs, with subsequent focused environmental documents for individual projects that implement the program. This document incorporates by reference the discussions in the program-level EIR (i.e., the General Plan Update EIR) and concentrates on project-specific issues.

In accordance with Section 15088.5 of the CEQA Guidelines, the General Plan Update EIR was recirculated with updates to the air quality and alternatives sections. The Final EIR amends and incorporates by reference the Draft EIR and Recirculated Draft EIR. The Final EIR was certified by the City of Carlsbad’s City Council on September 22, 2015. A General Plan Amendment (GPA) will be processed to include the Final Trails Master Plan.

14. SUMMARY OF ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The summary of environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact,” or “Potentially Significant Impact Unless Mitigation Incorporated” as indicated by the checklist on the following pages.

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

15. PREPARATION: The Initial Study for the subject project was prepared by:

Pam Drew *3-30-17*

 Pam Drew, Associate Planner Date

16. DETERMINATION: *(to be completed by 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 the mitigation measures described herein have been added to the project. 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(s)” on the environment, but at least one potentially significant impact (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 herein. A Negative Declaration 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, there WILL NOT be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project. Therefore, nothing further is required.

17. ENVIRONMENTAL DETERMINATION: The initial study for this project has been reviewed and the environmental determination, indicated above, is hereby approved.



DAVID DE CORDOVA, Principal Planner

3/30/17

Date

EVALUATION OF ENVIRONMENTAL IMPACTS

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

- a. The significance criteria or threshold, if any, used to evaluate each question; and
- b. The mitigation measure identified, if any, to reduce the impact to less than significant.

I. AESTHETICS 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light and glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) Less than Significant Impact. Scenic vistas within the city primarily consist of scenic corridors and views to and from the coastlines and the lagoons. A substantial adverse effect to scenic vistas could occur if development proposed pursuant to the Trails Master Plan introduces physical features that obstructs an identified public scenic vista, impairs scenic views from other properties, or has a substantial change to the natural landscape. Implementation of the Trails Master Plan would involve improvements to existing trails and installation of new trails within the city. Improvements may include trail repairs, erosion control, paving (including decomposed granite), lighting, landscape buffers, irrigation, fencing, wood edging, public art, trail-head amenities, and signage. These improvements would generally involve minimal structural changes; no buildings or vertical structures are proposed that would project into the skyline or impede scenic vistas from existing public trails, parks or roadways. Moreover, new and improved trails would provide new viewpoints from which the public may view scenic resources. Thus, substantial adverse effects to scenic vistas and other scenic resources would be less than significant.

b) No Impact. I-5 is eligible for designation in the California Scenic Highway System; however, the city has not nominated the portion of I-5 that falls within the city for official designation as a scenic route. Moreover, development proposed pursuant to the Trails Master Plan is not anticipated to substantially damage scenic resources such as trees, rock outcroppings, or historic buildings, since it would primarily involve improvements to existing trails or new trails that would not affect existing resources. No impact would occur.

c) Less than Significant Impact. The Trails Master Plan is proposed to guide future development of and improvements to trails within the city. Development of new trails would not substantially degrade existing visual character or quality, since they would be designed to be visually compatible with the surrounding environment. Individual development projects would be subject to development and planning review, and must therefore conform to Trail Standards and Design

Guidelines in the Trails Master Plan regarding aesthetic qualities such as trail layout and location, edging and fencing, lighting, and signage. The Trail Standards and Design Guidelines proposed within the Trails Master Plan, which are consistent with the city’s General Plan, would regulate physical aspects of trail development and would serve to enhance the existing visual character. All projects that are implemented pursuant to the Trails Master Plan would be required to be consistent with all applicable General Plan policies and goals and the city’s Habitat Management Plan (HMP), as amended November 2004. Compliance with the Trails Master Plan, General Plan and HMP would ensure that future development would enhance and unify the existing visual environment and would ensure that adverse effects to the visual character or quality of the city and its surroundings would be less than significant. Trail construction may result in short-term minor visual impacts; however, the trail projects would not require major grading or large construction equipment staging, and visual character would be restored or improved after trails are constructed. Thus, substantial adverse effects to the existing character or quality of the site and its surroundings would be less than significant.

d) Less than Significant Impact. As indicated in Section 6.13, Lighting, of the Trails Master Plan Trails Standards and Design Guidelines, the need for lighting for proposed trail projects would be determined on a case-by-case basis. Lighting would not be installed where nighttime use is not expected or allowed, adjacent to sensitive wildlife habitat areas, or along residential areas unless shielded. No lighting would be provided for Type 1 trails, which are typically located in natural open space that would be more sensitive to the introduction of new sources of light. While most of the trails would not be lighted, safety lighting may be provided where nighttime use of specific trails is allowed. For example, lighting may be considered at bridges, at public gathering areas along the trails, and at trail access points. The design of all trail roadway crossings is intended to include lighting for the comfort, safety, and convenience of roadway and trail users. “Dark sky compliant” lighting would be selected as appropriate to minimize light pollution and direct light downward. Light-emitting diode (LED) lighting should be considered to provide dimming capability and minimize light spillage where light is undesirable. Trail projects would be required to comply with the Trails Standards and Design Guidelines, General Plan policies and the city’s HMP’s Adjacency Standards related to lighting, ensuring that impacts resulting from new sources of light and glare would be less than significant.

II. AGRICULTURAL AND FORESTRY RESOURCES Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

II. AGRICULTURAL AND FORESTRY RESOURCES Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a-c) Less than Significant Impact. Some Trails Master Plan projects would run adjacent to areas identified as existing agricultural land in General Plan EIR Figure 3.14-1 (e.g., 7C, 7F, 8C, 8E, 9C, and 9D). These trails may be in use during active agricultural operations. In areas where trails are adjacent to active agricultural uses, fencing would be provided to separate the uses so that trail activities would not interfere with existing agricultural operations. In addition, these projects would not convert existing farmland to non-agricultural use. Therefore, Trails Master Plan projects would not conflict with existing zoning for agricultural uses or Williamson Act contracts, or involve other changes that would result in the conversion of Farmland to non-agricultural use. The Trails Master Plan projects would not be implemented near forest land. Therefore, impacts associated with agricultural and forestry resources would be less than significant.

III. AIR QUALITY Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) No Impact. The City of Carlsbad is located in the San Diego Air Basin (SDAB) under the jurisdiction of the San Diego Air Pollution Control District (SDAPCD). The SDAPCD develops and administers local guidelines and regulations for stationary air pollutant sources within the SDAB, and also develops plans and programs to meet attainment requirements for both National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The SDAPCD and SANDAG are responsible for formulating and implementing the clean air plan for attainment and maintenance of ambient air quality standards for the SDAB. An area is designated

as in “attainment” when it is compliant with the NAAQS and/or CAAQS, as set forth by the U.S. Environmental Protection Agency (USEPA) or the California Air Resources Board (CARB). According to SDAPCD, the SDAB is currently classified as a moderate non-attainment area for the federal 8-hour standard for ozone and a non-attainment area for the state standard for particulate matter less than or equal to 10 microns (PM₁₀), particulate matter less than or equal to 2.5 microns (PM_{2.5}), and the 1-hour and 8-hours standards for ozone (SDAPCD 2016). The SDAPCD’s plans and control measures designed to attain the federal and state air quality standards for those criteria air pollutants for which the SDAB is in non-attainment are outlined in the San Diego County Regional Air Quality Strategy (RAQS). The RAQS (last updated in December 2016) relies on information from CARB and SANDAG, including mobile and area source emissions and growth projections, respectively, to project future emissions and determine the strategies and regulatory controls necessary to reduce emissions.

The proposed Trails Master Plan would emphasize multimodal transit by making bicycle and pedestrian travel more accessible. One of the benefits of increased trips from bicyclists and pedestrians is a potential reduction in the number of vehicle trips, and therefore a reduction in vehicle emissions. A reduction of vehicular emissions is consistent with the goals of the RAQS. Thus, the Trails Master Plan would not conflict with the RAQS and no impacts would occur.

b) Less than Significant Impact. As described in III.a, above, the SDAB is currently classified as a moderate nonattainment area for the federal 8-hour standard for ozone as well as a nonattainment area for the state standard for PM₁₀ and PM_{2.5}, and the 1-hour and 8-hour standards for ozone. Future Trails Master Plan projects would result in small, temporary increases in air pollutant and dust emissions during light grading and construction. Fugitive dust particulate (PM₁₀ and PM_{2.5}) emissions would primarily result from clearing and site preparation activities. Emission of other criteria air pollutants such as oxides of nitrogen (NO_x) and carbon monoxide (CO) would primarily result from the use of construction equipment and motor vehicles. Such emissions would be minimized through standard construction measures and Best Management Practices (BMPs) that would reduce fugitive dust emissions and other criteria pollutant emissions during construction. Projects would be subject to SDAPCD Rule 55, Fugitive Dust Control, which requires that projects take steps to restrict visible emissions of dust beyond property lines. Compliance with Rule 55 would limit fugitive dust that may be generated during grading and construction activities.

The proposed Trails Master Plan would emphasize multimodal transit. One of the regional benefits of increased trips from bicyclists and pedestrians is a potential reduction in the number of vehicle trips, and therefore a reduction in vehicular air pollutant emissions that could contribute to an existing or project air quality violation. Thus, impacts from a substantial contribution to an existing or project air quality violation from construction would be less than significant.

c) Less than Significant Impact. As described in III.a, above, the SDAB is currently classified as a moderate non-attainment area for the federal 8-hour standard for ozone as well as a non-attainment area for the state standard for PM₁₀ and PM_{2.5}, and the 1-hour and 8-hour standards for ozone. Section 3.2 of the Recirculated Portions of the General Plan EIR, development allowed under the General Plan, which includes the Trails Master Plan, would result in a cumulatively considerable net increase of criteria pollutants for which the General Plan region is in nonattainment. However, the Findings of Fact contain overriding considerations, which establish that the environmental, economic, social, and other benefits of the General Plan, as stated more fully in the Statement of Overriding Considerations, outweigh any remaining significant adverse impact of the General Plan associated with impacts to air quality. Thus, the contribution from development under the proposed Trails Master Plan need not be considered significant pursuant

to Section 15152(f)(1) of the CEQA Guidelines. Further, as stated earlier, implementation of the Trails Master Plan may contribute to the improvement of air quality in the SDAB due to the reduction of regional vehicular emissions. Thus, temporary impacts would be less than significant.

d) Less than Significant Impact. In addition to the impacts from criteria pollutants described in III.a and III.b, above, impacts also may include emissions of pollutants identified by the state and federal governments as toxic air contaminants (TACs). The primary TAC of concern, as identified by the CARB, is diesel engine exhaust particulate matter. Certain land uses are more susceptible to the adverse health effects of TACs, including residences, schools, hospitals, resident care facilities, child care centers, playgrounds, athletic facilities, or other facilities that may house individuals with health conditions that would be severely impacted by changes in air quality.

The General Plan EIR analyzed the potential for future projects to result in exposure of sensitive receptors to substantial pollutant concentrations. Implementation of the General Plan would result in an increase in criteria pollutant emissions, which could potentially result in increased susceptibility of sensitive receptors to adverse health effects. The EIR concluded that long-term exposure of sensitive receptors to substantial concentrations of construction-related TACs is not anticipated to occur during construction of projects within the city, which would include the Trails Master Plan. Construction-related impacts were determined to be less than significant and, thus, also less than significant for the Trails Master Plan.

Users of the trails near roadways, such as Trail Types 4, 5, and 6, may be exposed to occasional TACs from passing vehicles; however, exposure to these pollutants would be intermittent and short-term. Thus, impacts related to the exposure of sensitive receptors to substantial pollutant concentrations would be less than significant.

e) Less Than Significant Impact. Operation of the proposed Trails Master Plan projects, which are recreational trails used by pedestrians and bicycles, would not introduce objectionable odors. Construction activities associated with the infrastructure improvements may generate temporary odors from concrete installation, painting, or other typical construction tasks. These odors would not occur in an intensity or duration to be considered substantially objectionable. Thus, impacts are considered less than significant.

IV. BIOLOGICAL RESOURCES Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian, aquatic or wetland habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IV. BIOLOGICAL RESOURCES Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a) Less than Significant Impact with Mitigation Measures Incorporated. A Biological and Cultural Constraints Report was prepared for the Trails Master Plan (HELIX, April 2016 Appendix A). This report detailed potential biological resources-related constraints for each trail project based on review of existing data on sensitive biological resources known to occur in the city, including special status species records, sensitive natural communities mapping, wetlands mapping, and other mapping data. The trails were assigned a potential constraint level (none, low, moderate, or high) based on whether they might occur on, or in the immediate vicinity, of known sensitive biological resources locations or areas with the potential to support sensitive biological resources based on analysis of existing data.

Several sensitive plant species are also known to occur within the city, including narrow endemic plants with take avoidance and other conservation requirements that can affect trail siting and design, as well as time of trail construction. Sensitive plant species can occur along the fringes of existing trails and within sensitive habitat that might be impacted by new trail alignments. Some sensitive plant species can occur within areas subject to minor surface disturbance, such as trail use and maintenance. Sensitive plant species that have the potential to occur on and/or adjacent to some of the trails include, but are not limited to, Del Mar Manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*), San Diego ambrosia (*Ambrosia pumila*), Nuttall’s scrub oak (*Quercus dumosa*), and thread-leaved brodiaea (*Brodiaea filifolia*).

Several sensitive wildlife species are known to occur within the city, including those with take avoidance and other conservation requirements that can affect the siting and design of trails and the timing of trail construction. Sensitive wildlife species that have the potential to occur on and/or adjacent to some of the trails include, but are not limited to, coastal California gnatcatcher (*Poliophtila californica californica*) and least Bell’s vireo (*Vireo bellii pusillus*).

Proposed trails were identified as having no constraints with respect to biological resources (see Figure 6, *Trail Segments with Biological Resource Constraints*, for trail constraints) were either already analyzed in a prior CEQA document (see Table 3) or will be located within an existing disturbed and/or developed area (e.g., utility roadbeds) that lack sensitive biological resources and would therefore not impact sensitive species are 1A, 2A, 2B, 5A, 7A (segment under and east of I-5), 7F, 7G, 8A, 8C, 8D, 8E, 9B, 9E, 9F, 9G, 10A, 12A, 12B, 12C, 12G, and 13A. No additional biological resources studies are recommended for these trails.

Several trails were identified as having low constraints with respect to biological resources. All or portions of these trails appear to have potential direct impacts to small areas of sensitive habitat and/or they immediately abut sensitive areas, including suitable habitat for sensitive species, sensitive natural communities, and/or wetlands, potentially triggering avoidance buffer requirements and/or restrictions on construction activities. The Trails Master Plan projects that would be developed by the city, private applicants or other public agencies that were identified as having low constraints and needing a project-specific biological survey are 5C, 7D, 9A, 9C, 10B, and 12J. At the programmatic level, impacts to sensitive species from these projects are conservatively assessed as potentially significant. The constraints report identified 1B, 1C, 7E, 10C, 10D, 12F, and 12H as projects with low constraints and not requiring biological studies if impacts are restricted to the existing disturbed and developed areas, which consist primarily of existing foot trails, access roads, and developed land.

A number of trails were identified as having high constraints with respect to biological resources. All or portions of these trails appear to have potential direct impacts to sensitive habitat, including suitable habitat for sensitive species, sensitive natural communities, and/or wetlands located in and outside of the coastal zone. Indirect impacts could also occur due to the location of these trails immediately adjacent to sensitive habitat and habitat potentially occupied by sensitive species. Riparian and wetland avoidance buffers may also be required for portions of some of these segments. The Trails Master Plan projects that would be developed by the city, private applicants or other public agencies identified as having high constraints and needing a project-specific biological surveys are: 1D, 2C, 5B, 7A (west of I-5), 6A, 7B, 7C, 7H, 8B, 9D, 12D, 12E, and 12I. At the programmatic level, impacts to sensitive species from these trails are conservatively assessed as potentially significant.

Certain trails have been specifically planned within existing utility easements or dirt trails and would be contained within existing access road footprints. These trails include 1B, 1C, 2A, 5A, 10C, 10D, 12F, and 13A. Impacts from these trails are planned to be restricted to existing disturbed areas that lack native vegetation and are setback from wetlands. No additional biological studies are required. In the unexpected event that these trails cannot be entirely contained within the existing access road footprints, they could disturb sensitive biological resources and impacts would be potentially significant.

For trail projects that require encroachment into facilities easements and ROW belonging to other public agencies (e.g., CDFW, NCTD, Caltrans, San Diego Gas and Electric [SDG&E], etc.), early coordination with these agencies would be initiated by the city.

Erosion at trails can degrade water quality and habitat for special status species. As described under IX.a, a Stormwater Pollution Prevention Plan (SWPPP) would be implemented during trail construction to minimize erosion impacts. In addition, trail design would include erosion control measures, where applicable, such as proper out-sloping of the trail tread and the installation of grade dips or waterbars to help decrease the potential for erosion of the trail surface. Existing drainage patterns of the surrounding area would be maintained. During trail maintenance, berms

would be removed to prevent water from channeling that would cause erosion. With implementation of these construction and design measures, erosion impacts to sensitive biological resources would be less than significant.

Non-native, invasive plant species may be introduced following trail construction. This can occur from trail users incidentally depositing seeds from other locations or from natural recruitment onto newly-scarified ground surfaces as a result of foot and bicycle traffic. Non-native, invasive plant species may out-compete native species for resources and result in conversion of native habitat types. Therefore, impacts from non-native, invasive plant species would be potentially significant.

The project would not be expected to contribute to an introduction of non-native, invasive animal or pest species into sensitive areas. Pest introduction in the region is more typically attributed to human habituation, equestrian use, artificial water sources, and transportation of affected plant material, none of which are proposed or expected with Trails Master Plan implementation. Impacts would be less than significant.

In accordance with Policy 4-P.9 of the General Plan, the mitigation measures below shall apply to the Trails Master Plan projects where potentially significant impacts to sensitive biological resources have been identified.

BIO-1: Project-Specific Biological Surveys. Prior to approval of any development for Trails Master Plan projects 1D, 2C, 5B, 5C, 7A (west of I-5), 6A, 7D, 8B, 9D, and 10B, a project-specific biological survey shall be conducted by the city to verify potential direct and indirect impacts to sensitive biological resources.

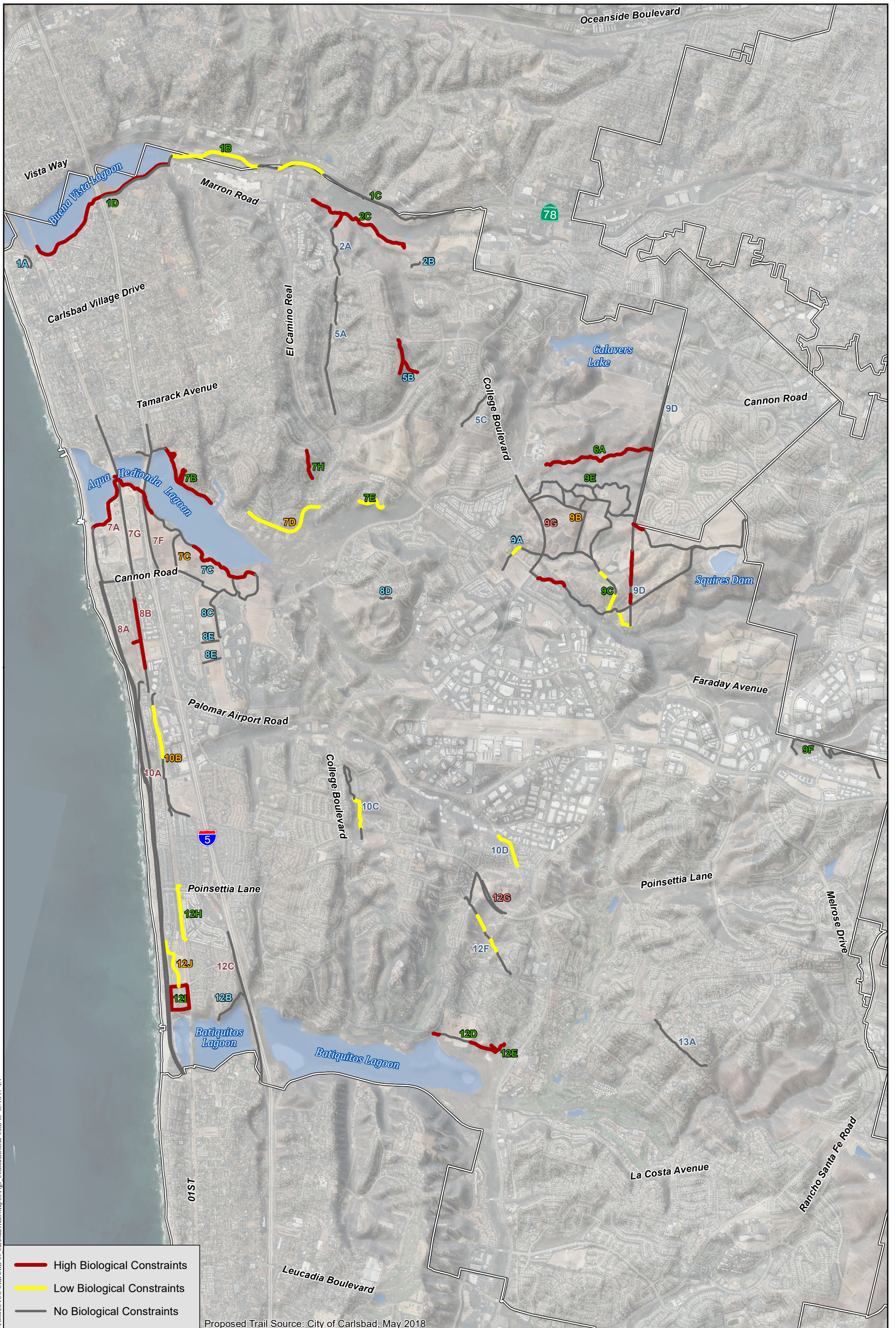
Prior to approval of any development for Trails Master Plan projects 7B, 7C, 7H, 9A, 9C, 12D, 12E, 12I, and 12J, a biological survey shall be conducted by the private applicant or other public agency developing the trail to verify potential direct and indirect impacts to sensitive biological resources.

Trails Master Plan projects 1B, 1C, 2A, 5A, 10C, 10D, 12F, 12H, and 13A shall be contained within disturbed and developed areas associated with the existing utility roadbed or dirt trail footprints. In the unexpected event that these trails cannot be restricted to the existing disturbed and developed areas, then prior to approval of any development for these trails, a project-specific biological survey shall be conducted by the city to verify potential direct and indirect impacts to sensitive biological resources.

Project-specific biological surveys shall field-verify existing habitat on and immediately adjacent to planned trails; identify potential opportunities for alternative trail siting to avoid sensitive biological resources; and identify opportunities for incorporating setbacks and buffers from sensitive biological resources that will be avoided.

If, after completion of project-specific biological surveys, the trails can be designed to avoid impacts to sensitive biological resources and incorporate appropriate buffers, then no additional actions with respect to biological resources shall be required.

If, after completion of project-specific biological surveys, the trails cannot be designed to avoid impacts to sensitive biological resources and incorporate appropriate buffers, then a project-specific biological technical report shall be prepared to support additional environmental review of the trails. The report shall document the results of the project-specific surveys and implement mitigation measures BIO-2 through BIO-8, as



Trail Segments with Biological Resource Constraints

applicable, and/or propose additional project-specific mitigation for impacts where measures proposed herein do not apply.

BIO-2: Rare Plant Surveys and Mitigation. If the project-specific studies identify potential impacts to suitable habitat for sensitive plant species, then, as applicable, the city, private applicant, or other public agency shall perform rare plant surveys (i.e., focused surveys for sensitive plants) to determine the presence or absence of sensitive plants within potential impact areas. The city, private applicant, or other public agency shall avoid sensitive plants to the greatest extent feasible to successfully implement the Trails Master Plan and demonstrate consistency with the city's HMP requirements. Impacts to habitat occupied by sensitive plant species shall be mitigated in accordance with mitigation measure BIO-4.

Trails Master Plan projects with the potential to impact narrow endemic species identified in Table 10 (page D-112) of the city's HMP shall meet required conservation standards, which includes 100 percent conservation of narrow endemic plant populations within the city's HMP proposed preserve system, and at least 80 percent conservation of populations outside of the proposed preserve system (see HMP page D-90, D.6 Measures to Minimize Impact on HMP Species and Mitigation Requirements). Trails potentially impacting narrow endemic species shall be redesigned to meet the required conservation standards of the city's HMP.

BIO-3: Focused Wildlife Species Surveys and Mitigation. If the project-specific studies identify potential impacts to suitable habitat for sensitive wildlife species, then, as applicable, the city, private applicant, or other public agency shall perform focused surveys for sensitive wildlife species to determine the presence or absence of sensitive wildlife within potential impact areas. The city, private applicant, or other public agency shall avoid sensitive wildlife species to the greatest extent feasible to successfully implement the Trails Master Plan and demonstrate consistency with the city's HMP requirements. Impacts to habitat occupied by sensitive wildlife species shall be mitigated in accordance with mitigation measure BIO-4.

Trails Master Plan projects with the potential to impact least Bell's vireo, southwestern willow flycatcher, and Harbison's dun skipper butterfly shall implement the required specific measures identified in the city's HMP to meet conservation standards for these species.

BIO-4: Compensatory Mitigation. If the project-specific studies identify unavoidable impacts to sensitive natural communities, including sensitive Habitat Group types identified in the city's HMP, then, as applicable, the city, private applicant, or other public agency shall mitigate impacts in accordance with the mitigation ratios and requirements specified in Table 11 (page D-113) of the city's HMP, and for projects within the Coastal Zone, the additional Coastal Zone Standards listed on pages D-114 through D-121 of the city's HMP. These additional standards in the Coastal Zone would include a creation component that achieves the city's no net loss standards. Impacts to Habitat Groups D, E, and F from city projects shall be mitigated by debiting the appropriate acreage from the Lake Calavera Mitigation Bank. Mitigation may be out-of-kind in accordance with allowances for city projects. Impacts to Habitat Groups A, B, and C shall be mitigated in-kind at the ratios stated in Table 11 of the HMP (e.g., creation, restoration, and/or enhancement).

BIO-5: Avoidance of Impacts to Nesting Birds and Raptors. To prevent impacts to nesting birds, including raptors, protected under the federal Migratory Bird Treaty Act and California Fish and Game Code, the city shall enforce the following:

Prior to construction activities requiring the removal, pruning, or damage of any trees, shrubs, and man-made structures (e.g., buildings, bridges, etc.) during the general breeding season, that being from January 15 to September 15, as applicable, the city, private applicant, or other public agency shall retain a qualified biologist to perform a pre-construction survey to determine if there are any active nests within the impact areas. The surveys shall take place no more than 7 days prior to the start of construction for a particular project component.

If any active raptor nests are located on or within 500 feet of the areas planned for construction, or if any active passerine (songbird) nests are located on or within 300 feet of the areas planned for construction, as applicable, the city, private applicant, or other public agency shall retain a qualified biologist to flag and demarcate the locations of the nests and monitor construction activities. No construction activities shall occur until it is determined by a qualified biologist that the nests are no longer active, and all nestlings have fledged the nest or until the end of the general breeding season, unless noise attenuation measures are implemented which reduce construction noise below 60 dBA L_{EQ} (1 hour) within 500 feet of the breeding habitat occupied by the listed species. A qualified biologist shall confirm, in writing, that no disturbance to active nests or nesting activities would occur as a result of construction activities. Documentation from a qualified biologist consistent with these requirements shall be submitted to the city for review and approval. A note to this effect shall be placed on the construction plans.

BIO-6: Orange Construction Fencing. If it is confirmed through the implementation of mitigation measure BIO-1 that project construction would occur immediately adjacent to sensitive habitat areas and/or habitat potentially suitable for sensitive species, as applicable, the city, private applicant, or other public agency shall retain a qualified biologist to supervise the installation of temporary orange construction fencing, which clearly delineates the edge of the approved limits of grading and clearing, and the edges of environmentally sensitive areas that occur beyond the approved limits. This fencing shall be installed prior to construction, and maintained for the duration of construction activity. Fencing shall be installed in a manner that does not impact habitats to be avoided.

If work occurs beyond the fenced or demarcated limits of impact, all work shall cease until the problem has been remedied and mitigation identified. Temporary orange fencing shall be removed upon completion of construction of the project. Implementation of this measure shall be verified by the city prior to and concurrent with construction.

Implementation of these mitigation measures, as applicable, would reduce potential impacts to sensitive species to less than significant.

BIO-7: Non-Native Invasive Inspection and Removal. As part of the city's routine maintenance inspections and where trails occur within or immediately adjacent to HMP Preserve areas, the city shall inspect trail edges for sign of non-native invasive plant species listed on the California Invasive Plant Inventory prepared by the California Invasive Plant Council (Cal-IPC 2006). If non-native invasive plant species are confirmed present within these areas, the city shall coordinate with the HMP Preserve

Manager to determine the specific actions and responsibilities for treatment and removal. The specific actions and responsibilities will be performed in accordance with long-term management directives and requirements prescribed for the affected HMP Preserve area. Where such directives and requirements have not been prescribed and cannot be provided by the HMP Preserve Manager, they shall include the following, at a minimum:

- a. The least toxic method that effectively removes the weeds shall be used. The preferred method would not use chemicals. This can be accomplished through hand weeding along the linear elements of the trail. Other non-chemical means includes mowing before seeds are set.
- b. If herbicides must be used for non-native invasive removal, at the direction of the Preserve Manager, invasive plants shall be treated with herbicides and left in place or removed and disposed of at an approved off-site location, such as the Waste Management facility at 5960 Reef Circle, Carlsbad, California. This would be performed in accordance with the city's Integrated Pest Management (IPM) plan, updated in November 2017. The updated plan emphasizes the initial use of organic pesticides, limiting the use of chemical pesticides where children and the general public congregate, and when pests cannot be managed by other methods, using USEPA-level pesticides in a targeted manner and only if deemed necessary to protect public safety or economic loss.
- c. Herbicides may only be applied by a licensed pesticide applicator under the supervision of the HMP Preserve Manager or qualified biologist retained by the city.
- d. A qualitative assessment of non-native plant species coverage shall be completed by the HMP Preserve Manager or qualified biologist retained by the city at the end of the year during which the treatment activities took place.
- e. Living, non-native plant species coverage at the location of the treatment area must be demonstrated not to exceed 10 percent of the total treatment area.
- f. If coverage exceeds 10 percent, then at the direction of the HMP Preserve Manager, the treatment activities shall be repeated the following year.

b) Less than Significant Impact with Mitigation Measures Incorporated. Trails Master Plan projects 1D, 2C, 5B, 6A, 7A (west of I-5), 7D, 8B, 9D, and 10B (to be implemented by the city) and 7B, 7C, 7H, 9A, 9C, 12D, 12E, 12I, and 12J (to be implemented by private applicant or another public agency) have the potential to impact riparian habitat and/or sensitive natural communities, including the city's HMP habitat types. Trails Master Plan projects 1B, 1C, 2A, 5A, 10A, 10C, 10D, 12F, 12H, and 13A shall be contained within disturbed and developed areas associated with the existing foot trail and access road footprints; therefore, no impacts on sensitive habitat are anticipated.

Implementation of mitigation measure BIO-1 will ensure that project-specific biological surveys are performed for trails with potential to impact sensitive habitat. If the project-specific studies identify unavoidable impacts to sensitive natural communities, including sensitive Habitat Group types identified in the city's HMP, then the city shall mitigate impacts in accordance with mitigation measure BIO-4. Implementation of mitigation measure BIO-6 will ensure that no inadvertent

impacts occur to sensitive habitat outside of allowed work areas. Unavoidable impacts to streambed and riparian habitat subject to the regulatory jurisdiction of the CDFW shall be mitigated in accordance with mitigation measure BIO-8 below. Therefore, with the implementation of mitigation measures BIO-1, BIO-4, and BIO-8, potential impacts on sensitive habitat would be reduced to less than significant.

BIO-8: Jurisdictional Delineation, Permitting, and Compensatory Mitigation. If the project-specific studies identify potential impacts to waters and wetlands potentially subject to regulatory agency jurisdictions (i.e., U.S. Army Corps of Engineers [USACE], Regional Water Quality Control Board [RWQCB], and California Department of Fish and Wildlife [CDFW] jurisdictions), including riparian habitat and federally-protected wetlands, then, as applicable, the city, private applicant, or other public agency shall perform a formal jurisdictional delineation to determine the presence or absence of jurisdictional waters and wetlands within potential impact areas. The city, private applicant, or other public agency shall avoid jurisdictional waters and wetlands to the greatest extent feasible to successfully implement the Trails Master Plan. If impacts to jurisdictional waters and wetlands cannot be avoided, then the city, private applicant, or other public agency shall notify the appropriate regulatory agencies, secure required permits, and implement compensatory mitigation in coordination with the regulatory agencies and the city's HMP. Compensatory mitigation shall occur at a minimum 1:1 ratio at an on- and/or off-site location through one or a combination of preservation, creation, restoration, and/or enhancement actions approved by the regulatory agencies.

c) Less than Significant Impact with Mitigation Measures Incorporated. As discussed in IV.a and b, implementation of the Trails Master Plan could impact federally protected wetlands. The Trails Master Plan projects that would be developed by the city, private applicants or other public agencies that were identified as potentially impacting wetlands are: 1D, 2C, 5B, 6A, 7A (west of I-5), 7B, 7C, 7D, 8B, 9D, and 12D. Therefore, impacts to wetlands from these projects are conservatively assessed as potentially significant.

Implementation of mitigation measure BIO-1 would require that project-specific biological surveys are performed to verify potential impacts to federally-protected wetlands. If impacts are unavoidable, implementation of mitigation measure BIO-8 would require that the city perform a formal jurisdictional delineation of impact areas and obtain the appropriate regulatory permits for the impacts. Mitigation measure BIO-8 would further require that the city fully mitigate impacts to federally-protected wetlands in accordance with permit requirements and as approved by the regulatory agencies. Implementation of these mitigation measures would reduce potential impacts to federally-protected wetlands to less than significant.

d) Less than Significant Impact. Trails may run through open space or undeveloped areas within the city that serve as wildlife corridors for common and sensitive wildlife species. The construction and operation of trails are not anticipated to impede wildlife movement, as they are paved or unpaved paths with minimal or no surface structures. Wildlife would be expected to move unobstructed through and around trails that might intersect wildlife movement areas. In some cases, trails would be expected to help facilitate wildlife movement for some species by allowing for new or enhanced travel routes. Therefore, impacts of the trails on wildlife movement would be less than significant.

e) Less than Significant Impact with Mitigation Measures Incorporated. The city has developed a set of guidelines to aid in the implementation of the city's adopted HMP and certified Carlsbad Local Coastal Program (LCP), including the guidelines for siting and design of projects

in sensitive areas, biological studies, guidelines for preserve management, guidelines for habitat creation and restoration, and guidelines for riparian wetland buffers. The Trails Master Plan, which implements and is consistent with the General Plan, is consistent with these documents, and future projects and improvements conducted pursuant to the Trails Master Plan would be required to be consistent with these documents, as applicable.

Preserve management actions for the HMP that are applicable to the Trails Master Plan are described under Section F., *Preserve Management, 2., Management and Monitoring Actions, B. Recreation and Public Access*, of the HMP. The Trails Master Plan would follow guidelines for the first recommendation regarding future recreational expansion. Where possible, trails would be located away from sensitive or high value biological areas, and many trails located in more sensitive areas would be constructed as Type 1 trails that have a minimized footprint (e.g., no level grading). Lighting would be minimal for security, and would not be provided in a Type 1 trail. The second recommendation, developing a recreation plan, was achieved through creation of the Trails Master Plan and the MND, which covers the recommendations in the HMP, such as developing design standards for new trail construction that address the avoidance of sensitive species, sensitive habitats, and erosion control. In addition, the city's park maintenance staff would coordinate with the City of Carlsbad Trail Volunteer Program for patrol and monitoring of the trails. The third recommendation, specific recreational activities, would require limiting or restricting passive uses in critical wildlife areas during the breeding season. As required by the HMP, passive uses are restricted during breeding season for trails that have been identified as having critical wildlife areas. Where feasible, fences would be placed in areas near sensitive habitats to minimize the potential for trampling of vegetation. In addition, trash receptacles would be provided on some trails, consistent with providing litter control measures. The Trails Master Plan would be consistent with the fourth recommendation, public access, by ensuring public access of the preserve while protecting and enhancing biological resources. As stated above, trails have been located away from sensitive resources where possible or constructed as a lower-impact trail, and trail maintenance would occur through the city's Park maintenance staff in coordination with volunteers. In addition, where biological resources may be impacted, mitigation measures BIO-1 through BIO-8 would be implemented to reduce impacts to less than significant.

Adjacency standards for the HMP that are applicable to the Trails Master Plan are described under Section F, *Preserve Management, 3, Adjacency Standards*, of the HMP. As discussed under IV.a, trail design and construction would incorporate erosion control regulations and features to minimize adverse effects from erosion. Regarding landscaping, invasive species would not be used and invasive species control would be implemented, per mitigation measure BIO-7. Lighting would not be used on Type 1 trails, which are generally located in the most sensitive areas, and where lighting would be used, it would be minimal and would be selected as appropriate to minimize light pollution and direct light downward. In Type 1 trails, fencing would be minimized so as not to impede wildlife movement and would only be included if next to sensitive habitats. Fencing may be included in other trail types, but if the area is identified as a wildlife corridor, open railing options or wire may be used. Trail staging areas and trailheads may contain interpretive and directional signage, and all trailheads should include trail identification signs, regulatory signs, trail user posts and a map kiosk. In addition, signage may be placed every few hundred feet to remind users to stay on the trail. Invasive species impacts were identified as potentially significant under IV.a; mitigation measure BIO-7 would be implemented to reduce these impacts, and where applicable would implement management actions under the HMP.

In summary, implementation of the design features in the Trails Master Plan and mitigation measures BIO-1 through BIO-8 would ensure that the Trails Master Plan projects are planned and constructed consistent with local ordinances pertaining to biological resources, including

those related to the city’s HMP and LCP. Therefore, with the implementation of mitigation measures BIO-1 through BIO-8, conflicts with the provisions of the city’s policies protecting biological resources impacts would be less than significant.

f) Less than Significant Impact with Mitigation Measures Incorporated. The city’s HMP was adopted by the City of Carlsbad’s City Council in November 2004. The HMP outlines specific conservation, management, facility siting, land use, and other measures to be implemented by the city to preserve and protect sensitive biological resources and habitat within the city, while also allowing for growth and development as anticipated under the General Plan. All future development projects would be required to comply with the conditions of the city’s HMP, including compliance with the established mitigation ratios, avoidance and minimization measures for special-status species and sensitive vegetation, adherence to the Coastal Zone Standards, Recreation and Public Access recommendations, and Adjacency Standards. The Trails Master Plan projects described as potentially significant under IV.a may impact sensitive HMP species and habitat, and impacts are conservatively assessed as potentially significant. Trails Master Plan compliance with the city’s HMP is described in further detail under IV.f.

Implementation of the design features in the Trails Master Plan and mitigation measures BIO-1 through BIO-8 would ensure that the appropriate project-specific studies are performed, and the appropriate avoidance, minimization, and compensatory mitigation efforts are implemented consistent with the city’s HMP requirements. Potential impacts would be reduced to less than significant.

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

a) Less than Significant Impact. A Biological and Cultural Constraints Report was prepared for the Trails Master Plan (HELIX 2016; Appendix A). In-house records (including maps and site records) that were previously obtained from the South Coastal Information Center (SCIC) and San Diego Museum of Man for past studies conducted in the City of Carlsbad area, were reviewed to identify cultural resources within the Trails Master Plan area. Previously recorded resources include historic resources such as historic trash deposits and remnants of historic buildings and related features.

Implementation of the proposed Trails Master Plan is not anticipated to directly adversely affect historic resources, since no new trails or trail improvements would involve altering known historic

structures, landmarks, or are located within districts that have been designated by the city or are listed on the national or state historic resources registers. However, because known resources are located within the Trails Master Plan area, construction of the proposed trails could potentially result in inadvertent or indirect actions that could adversely affect historic resources. Should this occur through the development of specific trail project designs, future development and improvement projects would be required to be consistent with CEQA and the General Plan, Arts, History, Culture, and Education Element goals and policies requiring the protection and preservation of such resources (Goals 7-G.1 and 7-G.2, Policies 7-P.2, 7-P.5, and 7-P.6). In addition, the City of Carlsbad's Cultural Resources Guidelines, dated 1990, and the City Council's Tribal Cultural Resource Protection Policy (No. 83) are also in place to help protect historic resources in the city. Compliance with CEQA for specific projects and the Cultural Resources Guidelines, as well as implementation of the applicable General Plan goals and policies, would ensure that any indirect or inadvertent impacts to historic resources would be less than significant.

b) Less than Significant with Mitigation Measures Incorporated. The results of the in-house record search conducted as part of the constraints report showed that approximately 190 cultural (including archeological) resources have been recorded within and along the existing and proposed trails in the Trails Master Plan. In addition, numerous archeological resources are recorded in proximity to proposed trails. These sites are far enough removed from the trails that they would not be subject to direct impacts, but they attest to the use of the city of Carlsbad area for thousands of years, and the density of sites in some areas is indicative of the cultural sensitivity of these areas. Previously recorded archaeological resources include habitation sites, bedrock milling features, shell middens, shell scatters, and scatters of ground stone and flaked stone artifacts.

The constraints report detailed potential cultural resource constraints for each trail rated by potential constraint level (low, moderate, or high). There are numerous proposed trails that have been identified as having low constraints with respect to archeological resources. Areas determined to likely have low constraints include areas that have a low potential for intact archeological resources, such as trails in paved areas or areas that have been subject to a degree of disturbance such that no intact archeological resources would be anticipated. These trail segments may or may not require an archeological resources survey depending on results of a project-specific cultural resources record search, proximity to known archeological resources, level of past disturbance, and/or details regarding the extent of trail repair/construction activities (including excavation for installation of infrastructure for drainage improvements or permanent restrooms). The Trails Master Plan projects that would be developed by the city that were identified as having low constraints are 1A, 1B, 1C, 2A, 5A, 5C, 7G, 8A, 8B, 10A, 10B, 10C, 10D, 12H, and 13A. However, a project-specific record search would still be required for these projects to conclusively determine the need for a cultural site survey. Impacts to cultural resources from these projects are conservatively assessed as potentially significant.

Trail projects determined to likely have moderate constraints include trails in areas where archeological resources are known to be present but have been determined not to be significant archaeological resources or do not appear to be significant resources, based on available information, as well as areas that have a moderate potential for archeological resources, based on the topography and natural resources in the vicinity. Cultural resources surveys may be required depending on results of a project-specific cultural resources record search, their proximity to known cultural resources, level of past disturbance, and/or details regarding the extent of trail repair/construction activities. The Trails Master Plan projects that would be developed by the city, private applicants, or other public agencies that were identified as having moderate constraints and potentially requiring a cultural site survey depending on results of

project-specific cultural resources record search are 5B, 7A (west of I-5), 7H, 9A, 12A, and 12F. Impacts to archeological resources from these projects are conservatively assessed as potentially significant.

A number of trails were identified as having high constraints with respect to archeological resources. Areas determined to likely have high constraints include trails crossing or adjacent to known significant archeological resources or areas that have numerous archeological resources recorded in the vicinity. In some cases, these previously recorded resources may have already been removed through development, but this can be determined by project-specific studies for individual proposed trails. Cultural resources site surveys would help determine whether implementation of each project would result in direct and/or indirect impacts to sensitive archeological resources. The Trails Master Plan projects that would be developed by the city, private applicants, or other public agencies that were identified by the constraints report as having high constraints needing a project-specific record search and cultural survey are: 1D, 2C, 6A, 7B, 7C, 7D, 7E, 9C, 9D, 12D, 12E, 12I, and 12J. Impacts to archeological resources from these projects are assessed as potentially significant.

Although ground-disturbing activities associated with future development under the Trails Master Plan are expected to generally be minor in scale as most trails follow previously paved, disturbed, or graded paths, they could potentially result in direct or indirect impacts through the accidental destruction or disturbance of archaeological resources. Project components such as installation of restrooms or drainage improvements could involve more extensive ground disturbance, including excavation for utility connections, and result in unintentional potential impacts to archaeological resources. Future development and improvement projects conducted pursuant to the Trails Master Plan area would be required to implement the applicable General Plan goals and policies pertaining to archaeological resources, including Policy 7-P.7 implementing the city's Cultural Resources Guidelines to avoid or substantially reduce impacts to archaeological resources; Policy 7-P.8, which requires monitoring during ground disturbing activities in previously undisturbed areas or areas with known archaeological resources; Policy 7-P.9, which ensures the proper treatment of cultural resources discovered during construction; and Policy 7-P.10, which requires consultation with the appropriate organizations and individuals to minimize potential impacts to cultural resources that may occur in the area. In accordance with Policies 7-P.7, 7-P.8, 7-P.9, and 7-P.10 of the General Plan, the following mitigation measure shall apply to future projects within the Trails Master Plan, as applicable.

CUL-1: Project-level Cultural Resources Record Search & Consultation. Prior to approval of any development for Trails Master Plan projects 1A, 1B, 1C, 1D, 2A, 2C, 5A, 5B, 5C, 6A, 7A (west of I-5), 7D, 7E, 7G, 8A, 8B, 9D, 10A, 10B, 10C, 10D, 12A, 12F, 12H, and 13A, a project-specific cultural resources record search and consultation with the appropriate organizations, California Native American tribes, and individuals shall be conducted by the city as part of the environmental review process.

Prior to approval of any development for Trails Master Plan projects 7B, 7C, 7H, 9A, 9C, 12D, 12E, 12I, and 12J, a project-level cultural resources record search and consultation with the appropriate organizations, California Native American tribes, and individuals shall be conducted as part of the environmental review process by the private applicant or other public agency.

The results of the record search and consultation shall determine whether or not project-level surveys are required to be conducted, pursuant to mitigation measure CUL-2.

CUL-2: Project-level Cultural Resources Site Survey. If it is determined through the project-level record search and consultation conducted as part of mitigation measure CUL-1 that cultural resources are known to exist or have the potential to occur within the alignment or immediate vicinity of an individual project within the Trails Master Plan, a cultural resource survey shall be conducted. If significant cultural resources or Tribal Cultural Resources are observed or suspected to occur beneath the surface, an assessment shall be prepared to document the resources per current acceptable professional archaeological standards, and to identify measures to reduce potential impacts. If potential impacts to Tribal Cultural Resources are anticipated, then consultation with the appropriate California Native American tribe shall be conducted to identify measures to reduce potential impacts. Measures to reduce potential impacts to Tribal Cultural Resources may include CUL-3 and CUL-4 below, but are not limited to these measures, and shall be addressed in a pre-excavation agreement with the appropriate California Native American tribe.

CUL-3: Construction Monitoring. For those projects where cultural resources were identified through the project-level site survey conducted as part of mitigation measure CUL-2 and monitoring is an appropriate measure to reduce potential impacts, a qualified archaeologist and Native American monitor shall conduct monitoring of the project site during all grading and other ground-disturbing activities related to construction activities. General archaeological and Native American monitoring of soil disturbances shall be conducted as applicable within each portion of the project identified in the project-level survey as potentially containing sensitive cultural resources. In the event that cultural resources are discovered during project construction, all earth disturbing work within the vicinity of the resource(s) must be temporarily suspended or redirected until a qualified archaeologist and Native American monitor have evaluated the nature and significance of the find, pursuant to mitigation measure CUL-4. After the find has been appropriately addressed, work in the area may resume.

CUL-4: Resource Recovery Procedures. Treatment of any cultural resources discovered during site preparation shall comply with the city's Cultural Resource Guidelines. Determination of the significance of the cultural resource(s) and development and implementation of any data recovery program or alternative measures shall be conducted in consultation with interested Native American tribes. All Native American human remains and associated grave goods shall be returned to their most likely descendent and repatriated in accordance with state and federal regulations. The final disposition of archaeological artifacts that are not considered Tribal Cultural Resources by the appropriate California Native American Tribe shall be offered to an institution staffed by qualified professionals, as may be determined by the City Planner. Artifacts include material recovered from all phases of work, including the initial survey, testing, indexing, data recovery, and monitoring. A cultural resource monitoring report identifying all materials recovered shall be filed with the South Coastal Information Center, and a copy submitted to the City Planner, upon project completion. Disposition of artifacts that are considered Tribal Cultural Resources shall be governed by the pre-excavation agreement previously executed with the appropriate California Native American tribe.

Implementation of mitigation measures CUL-1 through CUL-4 would reduce potential impacts to archaeological resources to less than significant.

c) *Less than Significant with Mitigation Measures Incorporated.* Paleontological resources are the remains and/or traces of prehistoric plant and animal life, exclusive of human remains.

Geologic formations within the city that are known to produce significant fossils or have the potential to contain fossils include the Lusardi Formation of the Cretaceous Age and the Santiago Formation and Del Mar Formation of the Tertiary Age that overlie the Lusardi Formation. Implementation of the Trails Master Plan would not directly result in physical construction that could impact paleontological resources. Although ground-disturbing activities associated with future development under the Trails Master Plan are expected to be minor in scale as most trails follow previously paved, disturbed, or graded paths, they could potentially result in direct or indirect impacts through the accidental destruction or disturbance of paleontological resources. Individual projects would be required to be consistent with the applicable General Plan Arts, History, Culture, and Education Element policies to minimize or avoid impacts to paleontological resources (Policies 7-P.7, 7-P.8, 7-P.9, and 7-P.10).

In accordance with Policy 7-P.8 of the General Plan, implementation of following mitigation measure shall apply to future projects within the Trails Master Plan, as applicable.

PALEO-1: Prior to approval of any project which may involve ground disturbance in areas which have a moderate to high potential for paleontological resources, a paleontological resource assessment shall be conducted to determine the potential for significant paleontological resources to occur. If significant paleontological resources could be impacted, excavation in the area suspected to contain paleontological resources shall be monitored by a qualified paleontologist. If significant resources are encountered, they shall be recovered and conveyed to an appropriate repository.

Implementation of mitigation measure PALEO-1 would reduce potential impacts to paleontological resources to less than significant.

d) Less than Significant Impact. Human remains, particularly those interred outside formal cemeteries, have the potential to be disturbed during ground-disturbing activities associated with future development under the Trails Master Plan. In accordance with Health and Safety Code 7050.5, CEQA 15064.5(e), and Public Resources Code 5097.98, if any human remains are discovered during future development activities, all work would be halted in the vicinity of the discovery, the County Medical Examiner would be notified, and standard procedures for the respectful handling of human remains would be adhered to. Therefore, impacts associated with the disturbance of human remains would be less than significant.

VI. GEOLOGY AND SOILS				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving: <ul style="list-style-type: none"> 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? 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soils, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a.i) Less than Significant Impact. As shown in Figure 3.5-2 of the City of Carlsbad General Plan EIR, no known active, potentially active, or inactive faults traverse the City of Carlsbad, and therefore the Trails Master Plan area, nor are any trails located within an Alquist-Priolo Earthquake Fault Zone. The Newport-Inglewood-Rose Canyon Fault, located approximately 4 miles offshore of the city’s coastline, is the closest known active fault. While the potential for on-site rupture cannot be completely discounted (e.g., unmapped faults could conceivably underlie the Trails Master Plan area), the likelihood for such an occurrence is considered low due to the absence of known faulting within or adjacent to the Trails Master Plan area. Therefore, impacts related to fault rupture from implementation of the proposed Trails Master Plan would be less than significant.

a.ii) Less than Significant Impact. The Trails Master Plan area is located in seismically active Southern California and trails are likely to be subjected to moderate to strong seismic ground shaking. Seismic shaking could be generated by events on any number of known active and potentially active faults in the region, including the Newport-Inglewood-Rose Canyon Fault (offshore), as well as the Coronado Bank, La Nacion, Elsinore, Agua Caliente, and San Jacinto fault zones. An earthquake along any of these known active or potentially active fault zones could result in severe ground shaking, and consequently cause injury and/or trail damage within the Trails Master Plan area. However, construction of the Trails Master Plan projects would not include major structures, and development of infrastructure improvements would conform to applicable regulatory guidelines to accommodate seismic loading, pursuant to the applicable California State University Seismic Safety Requirements, as well as existing guidelines such as the California Building Code (CBC; California Code of Regulations, Title 24, Part 2). The CBC provides appropriate measures to accommodate seismic loading parameters in California. Based on the lack of major structures on the trails and the incorporation of applicable measures into infrastructure improvements, impacts associated with strong seismic ground shaking would be less than significant.

a.iii) Less than Significant Impact. Liquefaction is the phenomenon that occurs during severe ground shaking whereby soils reduce greatly in strength and temporarily behave similarly to a fluid rather than a solid. Severe or extended liquefaction can result in significant effects to surface and subsurface facilities through the loss of support and/or foundation integrity. Liquefaction is restricted to certain geologic and hydrologic environments, primarily recently deposited sand and silt in areas with high groundwater levels.

Certain areas of the Trails Master Plan, as well as the city in general, have a higher risk of liquefaction due to the presence of hydrophytic soils that are often saturated or characteristic of wetlands (e.g., Agua Hedionda and Buena Vista Lagoons). Specific Trails Master Plan projects in liquefaction areas according to Figure 3.5-3 of the General Plan EIR include 1B, 1C, 1D, 2C, 7A (west of I-5), 7D, 7E, and 10B for projects to be built by the city and 7B, 9A, 12D, 12E, 12I, and 12J for projects to be built by developers or other public agencies. The proposed Trails Master Plan would allow for infrastructure improvements (e.g., small bridges and restrooms) that may be at risk for liquefaction; however, structures would be constructed in compliance with the city's Building Codes and Regulations (CMC Title 18), which adopts the 2016 Edition of the CBC, Volumes 1 and 2. Risks from liquefaction would be analyzed as part of the development review process and potential dangers from liquefaction would be addressed as required by the CBC, including Section 1610, Soil Lateral Loads, which requires design that resists lateral soil loads. Potential design considerations could include removal or re-compaction of liquefiable soils, in site ground densification, ground modification and improvement, deep foundations, reinforced shallow foundations, and reinforced structures to resist deformation during liquefaction. Compliance with the CBC and implementation of the proposed Trails Master Plan would result in less than significant impacts to people and structures from seismic-related ground failure, including liquefaction.

a.iv) Less than Significant Impact. The General Plan EIR analysis does not include any areas in the city identified as being susceptible to landslides and the overall risk of landslides is low. Given the absence of active faults and the low risk of landslides, the potential for seismically induced landslides is low and impacts related to landslides would be less than significant.

b) Less than Significant Impact. Construction of new trails and improvements to existing trails through the Trails Master Plan could result in exposed soil via construction activities such as ground clearance. These activities would result in temporary impacts to the local topography and

soils. However, these activities are expected to be minor in scale as most trails follow previously paved, disturbed, or graded paths. Potential sedimentation and erosion impacts would be minimized or avoided with the implementation of erosion and sedimentation control measures and off-site transport of eroded materials in compliance with the National Pollutant Discharge Elimination System (NPDES) permit requirements. Furthermore, the project will also adhere to the city's Master Drainage Plan, Grading Ordinance, Storm Water Ordinance, BMP Design Manual and Jurisdictional Runoff Management Program (JRMP) to avoid increased urban runoff, pollutants, and soil erosion.

Control measures would include applicable BMPs (per the city's BMP Design Manual), such as covering stockpiled excavated materials to reduce potential off-site sediment transport and regular inspection and maintenance of all sediment catchment facilities to ensure proper function and effectiveness. The Citywide Trail Inspection Form used during trail maintenance, and included in Table 7.2 of the Trails Master Plan, would record possible erosion conditions and repairs would be scheduled. Compliance with NPDES permit requirements as well as city standards for sedimentation and erosion control BMPs and other applicable city regulations, codes, and ordinances, would ensure that construction and operational impacts from implementation of the Trails Master Plan would be less than significant.

c) *Less than Significant Impact.* As discussed in Item VI.a.iv, Trails Master Plan projects are not located within areas prone to landslides. As discussed in Item VI.a.iii, structures would be constructed in compliance with the city's Building Codes and Regulations (CMC Title 18), which adopts the 2016 Edition of the CBC, Volumes 1 and 2. Per Section 15.16.060 of the city's Municipal Code Grading permits are required for projects with more than 200 cubic yards of earth movement or that cut and fill on steep slopes. Implementation of the proposed Trails Master Plan could result in development on a geologic unit or soil that is unstable or may become unstable; however, the majority of the Trails Master Plan projects are anticipated to be exempt from requiring a grading permit as they would not involve more than 200 cubic yards of earth movement or cut and fill on steep slopes. In the event that a Trails Master Plan project is not exempt and a grading permit is required, future development would be required to comply with the city's Grading Ordinance (CMC Chapter 15.16), which requires a geotechnical investigation as part of the grading permit application process that would identify potential hazards and provide recommendations consistent with city standards. Thus, impacts would be less than significant.

d) *Less than Significant Impact.* Implementation of the proposed Trails Master Plan could result in development on an expansive soil; however, the majority of the Trails Master Plan projects are anticipated to be exempt from requiring a grading permit per Section 15.16.060 of the city's Municipal Code. In the event that a grading permit is required, future development would be required to comply with the city's Grading Ordinance (CMC Chapter 15.16), which requires a geotechnical investigation as part of the grading permit application process that would identify potential hazards and provide recommendations consistent with city standards. Thus, impacts would be less than significant.

e) *No Impact.* No septic tank systems are anticipated to be proposed with the Trails Master Plan; therefore, no impact related to the use of septic tanks or alternative wastewater disposal systems would occur.

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

a) Less than Significant Impact. Global climate change refers to changes in average climatic conditions on Earth as a whole, including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), ozone, and certain hydro-fluorocarbons. These gases, known as greenhouse gases (GHGs), allow solar radiation (sunlight) into the Earth’s atmosphere, but prevent radiative heat from escaping, thus warming the Earth’s atmosphere. GHGs are emitted by both natural processes and human activities. The accumulation of GHGs in the atmosphere regulates the Earth’s temperature. Emissions of GHGs in excess of natural ambient concentrations are thought to be responsible for the enhancement of the greenhouse effect and contribute to what is termed “global warming,” the trend of warming of the Earth’s climate from anthropogenic activities. Global climate change impacts are by nature cumulative; direct impacts cannot be evaluated because the impacts themselves are global rather than localized impacts.

California Health and Safety Code Section 38505(g) defines GHGs to include the following compounds: CO₂, CH₄, N₂O, ozone, chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). As individual GHGs have varying heat-trapping properties and atmospheric lifetimes, GHG emissions are converted to carbon dioxide equivalent (CO₂e) units for comparison. The CO₂e is a consistent methodology for comparing GHG emissions because it normalizes various GHG emissions to a consistent measure.¹ The most common GHGs related to the project are those primarily related to energy usage: CO₂, CH₄, and N₂O.

The city adopted a Climate Action Plan (CAP) as part of the General Plan EIR, dated September 2015, that is designed to reduce the city’s GHG emissions, and streamline environmental review of future development projects in the city. The CAP includes a local GHG emissions inventory, forecasts for future GHG emissions, and a comprehensive set of measures and actions for the city to reduce GHG emissions and combat global climate change through 2035.

Implementation of the Trails Master Plan projects would include potential construction activities. The anticipated construction work associated with the trail improvements would not include extensive grading of undeveloped land or other intensive construction activities. The quantity of

¹ The effect each GHG has on climate change is measured as a combination of the volume of its emissions, and its global warming potential. The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere, and is expressed as a function of how much warming would be caused by the same mass of CO₂. For instance, CH₄ has a global warming potential of 21, meaning that 1 gram of CH₄ traps the same amount of heat as 21 grams of CO₂. N₂O has a global warming potential of 310.

GHG emissions is not anticipated to be substantial, and construction emissions would be finite and temporary.

Operation of the Trails Master Plan projects would allow for an increase in multi-modal transit by making bicycle and pedestrian travel more convenient and accessible. An increase in these trips would potentially lead to a reduction in vehicle trips and associated vehicle miles traveled (VMT). Replacing vehicular trips with bicycle and pedestrian trips has a measurable impact on reducing human-generated GHGs in the atmosphere that contribute to climate change. The trails may include lighting, which indirectly generates GHG emissions through energy consumption. Where lighting is included in projects, the Trails Master Plan indicates that the use of light-emitting diode (LED) lighting fixtures should be considered due to their reduced energy consumption, as well as reduced maintenance requirements. Use of LED lighting is consistent with CAP GHG reduction measure I – Efficient Lighting Standards. Moreover, as indicated in General Plan EIR Chapter 3.4, Energy, Greenhouse Gases, and Climate Change, implementation of General Plan policies and associated reduction measures in the CAP would meet all GHG emissions targets through 2035 and overall GHG emissions within the city, including the Trails Master Plan area.

Thus, since GHG emissions would be minimal and implementation of the Trails Master Plan would support the city's goal of reducing regional vehicular GHG emissions by making alternative means of transportation more accessible, impacts related to project-related GHG emissions would be less than significant.

b) No Impact. The Trails Master Plan would be consistent with the General Plan goals and policies aimed at reducing citywide GHG emissions, as well as goals, policies, and actions provided in the city's CAP, through support of a multi-modal transportation system in the city. Specifically, the Trails Master Plan would be consistent with the following General Plan policies that would have an effect of reducing GHG emissions: Mobility Element Policy 3-P.8, which calls for non-automotive enhancements to the transportation in the city; and Sustainability Element Policy 9-P.2, which calls for decreased use of energy and fossil fuel consumption in transportation.

In addition, the goals and policies related to multi-modal transportation objectives within the Trails Master Plan, General Plan, and CAP complement the SANDAG 2050 Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS), which serves as the regional implementation strategy for carrying out SB 375, California's state planning priorities (AB 857 adopted in 2002), the California Global Warming Solutions Act of 2006, and regional GHG targets. As such, the proposed Trails Master Plan would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Thus, no impacts would occur.

VIII. HAZARDS AND HAZARDOUS MATERIALS Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) Less than Significant Impact. The Trails Master Plan provides a planning framework for a trails network in the city. Operation of the expanded trails network would not involve the routine use, transport, and/or disposal of hazardous materials. Thus, no long-term operational impacts related to hazardous materials would be anticipated

Limited transport, storage, use, and disposal of hazardous materials may occur during construction of infrastructure improvements (e.g., the use of fuels, solvents, and lubricating fluids for the fueling and servicing of construction equipment). The County of San Diego Department of Environmental Health, Hazardous Materials Division is the designated Certified Unified Program Agency (CUPA) for San Diego County, and is required to implement the unified hazardous waste and hazardous materials management and regulatory program for the county with the help of other local agencies such as the city. Construction would be short term and the handling of hazardous materials would be regulated through implementation of CUPA programs, as well as conformance with other applicable federal, state, and local regulations. Thus, impacts are considered less than significant.

b) Less than Significant Impact. The Trails Master Plan provides a planning framework for a trails network in the city. Operation of the expanded trails network would not be expected to cause a reasonably foreseeable upset and accident conditions that would release hazardous materials. Thus, no long-term operational impacts related to hazardous materials would be anticipated.

Construction of the Trails Master Plan improvements would 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. The use of construction-related hazardous materials such as fuels, solvents, and lubricating fluids could potentially result in accidental discharges associated with storage, vehicle operation (e.g., refueling), or maintenance. The Trails Master Plan improvements would be subject to General Plan, Public Safety, Policy 6-P.25, which requires proper storage and disposal of hazardous materials to reduce the likelihood of leakage, explosions, or fire, and to properly contain potential spills from leaving the site. Construction would be short term and the handling of hazardous materials would be regulated through implementation of CUPA programs, as well as conformance with other applicable federal, state, and local regulations. Thus, impacts are considered less than significant.

c) Less than Significant Impact. There may be schools within 0.25 mile of proposed Trails Master Plan improvements; however, pedestrians and bicyclists travelling in the designated bikeways would not emit or transport hazardous material substances and no operational impacts are anticipated. Potential construction and/or maintenance-related impacts would be minimized or avoided through conformance with applicable federal, state, and local regulations, described in VIII.a and VIII.b, above. Impacts would be less than significant.

d) Less than Significant Impact. As described in Chapter 3.6, Hazardous Materials, Airport Safety, and Wildfires of the General Plan EIR, there are several sites near Trails Master Plan improvements that are included on one or more of the lists of hazardous material sites compiled pursuant to Government Code Section 65962.5 or that need further investigation. The primary reason for listing is soil and groundwater contamination; development within these areas could potentially pose a significant hazard to the public or the environment should contaminants be encountered. Trails Master Plan improvements would be subject to General Plan Public Safety Element Policy 6-P.23, which requires regulation of development on sites with known soil and groundwater contamination to ensure the safety of construction personnel, future occupants, and the environment. Per General Plan Public Safety Element Policy 6-P.24, hazardous materials emergency incident response and coordination with applicable agencies, would be required for new development projects. In addition, the majority of the proposed Trails Master Plan improvements are expected to require minor to no ground disturbance that could release these hazardous materials. Therefore, potential hazards to the public or environment due to the location of Trails Master Plan improvements near hazardous materials sites would be less than significant.

e) Less than Significant Impact. Trails Master Plan improvements are located as close as 0.75 mile from McClellan-Palomar Airport. Approximately eight projects to be built by the city, private applicants or other public agencies are located within two miles of the airport (6A, 7C, 7E, 9A, 9C, 9D, 10C, 10D, and 12F). Trails Master Plan improvements would not construct structures that would pose a risk to aircraft. Some projects would be within Airport Land Use Compatibility Plan (ALUCP) Safety Zone 6 (Traffic Pattern Zone) for the McClellan-Palomar Airport, as amended March 4, 2010. According to the ALUCP, recreational areas are compatible with Safety Zone 6. Thus, impacts would be less than significant.

f) No Impact. No private airstrips are located within the vicinity of Trails Master Plan improvements. Therefore, the Trails Master Plan would not result in a safety hazard for people residing or working in the area and no impacts would occur.

g) Less than Significant Impact. The Trails Master Plan improvements would not impair implementation of or physically interfere with the city’s adopted emergency response plan or emergency evacuation plan. The city has adopted the Carlsbad Emergency Operations Plan, which addresses the city’s planned response to emergency situations. While new users of trails may result in an increase in demand for emergency services, which could affect emergency plan implementation, the city has plans in place to address emergency situations such that emergency-related impacts would be less than significant.

h) Less than Significant Impact. Some of the proposed Trails Master Plan improvements travel through open space and wildlands. No habitable structures are proposed; however, there is a potential risk from fire to people utilizing the trails through open space areas. People using paths would be mobile and, with a fire in the vicinity, trails are likely to be closed by the city. In addition, the City of Carlsbad Fire Department has signed automatic aid agreements with all surrounding communities when additional firefighting resources are needed. The city is also part of both the San Diego County and State of California Master Mutual Aid Agreements and maintains a separate agreement with CAL FIRE. As stated in the Trails Master Plan, some trails (such as Type 3 trails) may serve as firebreaks when located in native canopy hillsides, valleys, or canyons. The trails would also be cleared and maintained in a manner that ensures access to emergency responders (police and fire). Therefore, impacts related to wildland fires would be less than significant.

IX. HYDROLOGY AND WATER QUALITY Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with ground water recharge such that there would be a net deficit in aquifer volume or a lowering of the local ground water table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

IX. HYDROLOGY AND WATER QUALITY Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the flow rate or amount (volume) of surface runoff in a manner, which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within 100-year flood hazard area structures, which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) Less than Significant Impact. Future development and improvements proposed within the Trails Master Plan have the potential to result in water quality and waste discharge requirement violations. All projects implemented under the proposed Trails Master Plan would be required by law to comply with all federal, state, and local water quality regulations. Applicable regulations include, but are not limited to:

- Federal Clean Water Act
- Division 7 of the California Water Code (Porter-Cologne Water Quality Act)
- Specific basin plan objectives identified in the “Water Quality Control Plan for San Diego Basin” (WQCP)

- National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer Systems Permit (MS4 Permit) issued by the San Diego Regional Water Quality Control Board (RWQCB)
- City of Carlsbad Engineering Standards, Volume 4, Construction Storm Water Pollution Prevention Plan (SWPPP) – BMPs during construction, and Volume 5, Best Management Practices – BMP after construction, the Carlsbad Water Quality Improvement Plan (WQIP) and the Carlsbad Watershed Management Area Analysis (WMAA), which is part of the WQIP.
- City of Carlsbad’s Master Drainage Plan, Grading Ordinance, Storm Water Ordinance, BMP Design Manual and Jurisdictional Runoff Management Program (JRMP).

The San Diego RWQCB is responsible for regulating storm water discharges, and maintaining the quality of water resources within the County, including the Trails Master Plan area. Construction activities, storm drain systems, and point-source discharges associated with individual projects within the Trails Master Plan area would be required to obtain coverage under a NPDES permit, per Section 402 of the Clean Water Act. All projects would be required to meet, at a minimum, standard storm water requirements to reduce the volume of runoff from impervious surfaces and increase the amount of natural filtration of pollutants from on-site storm water. Standard requirements include the following low impact development (LID) measures identified in General Plan EIR Section 3.8, Hydrology and Flooding/Water Quality:

- Drain a portion of impervious areas into pervious areas, if any.
- Design and construct pervious areas, if any, to effectively receive and infiltrate runoff from impervious areas, taking into account soil conditions, slope, and other pertinent factors.
- Construct a portion of paved areas with low traffic and appropriate soil conditions with permeable surfaces.

For each new project that would disturb one or more acres of land, create greater than 5,000 square feet of impervious surfaces, or otherwise pose a threat to storm water quality, a SWPPP and a Storm Water Quality Management Plan (SWQMP) would be required to be prepared pursuant to the requirements in the City of Carlsbad Engineering Standards and Grading and Drainage Ordinances. The SWPPP would include a program of BMPs to provide storm water runoff, erosion and sediment control and reduce potential impacts to water quality that may result from construction activities. Typical construction BMPs include the following, as identified in General Plan EIR Section 3.8:

- **Minimizing disturbed areas.** Clearing of land is limited to that which will be actively under construction in the near term; new land disturbance during the rainy season is minimized; and disturbance to sensitive areas or areas that would not be affected by construction is minimized.
- **Stabilizing disturbed areas.** Temporary stabilization of disturbed soils is provided whenever active construction is not occurring on a portion of the site, and permanent stabilization is provided by finish grading and permanent landscaping.

- **Protecting slopes and channels.** Outside of the approved grading plan area, disturbance of natural channels is avoided; slopes and crossings are stabilized; and increases in runoff velocity caused by the project is managed to avoid erosion to slopes and channels.
- **Controlling the site perimeter.** Upstream runoff is diverted around or safely conveyed through the project and is kept free of excessive sediment and other constituents.
- **Controlling internal erosion.** Sediment-laden waters from disturbed, active areas within the site are detained.

Erosion control measures specifically laid out in the Trails Master Plan, where applicable, include proper out-sloping of the trail tread and the installation of grade dips or waterbars to help decrease the potential for erosion of the trail surface. If distances allow, grade dips are preferred over waterbars. Existing drainage patterns of the surrounding area, such as concentrated drainage channels, would be maintained. For culverts, design provisions such as rock edging and energy dissipaters should be used to prevent downstream erosion in case the culvert clogs with debris and flows over top of the trail. During trail maintenance, berms should be removed to prevent water from channeling that would cause erosion.

Non-point source surface water from impervious surfaces within Trails Master Plan improvements may contain contaminants or increased sediment loads that would increase pollution within the local storm drain system. Compliance with the applicable federal, state, and local water quality regulations would ensure that impacts to water quality standards or waste discharge requirements would be less than significant.

b) Less than Significant Impact. Groundwater consists of water within underground aquifers that is recharged from the land surface. The rate of groundwater recharge is affected by the permeability of the ground surface. Changes in the amount of impervious surfaces within Trails Master Plan improvements are not anticipated to substantially reduce groundwater recharge since the majority of improvements do not consist of impervious surfaces. In addition, the Carlsbad Municipal Water District (CMWD) does not currently utilize local groundwater or surface water supplies. Thus, groundwater impacts relative to implementation of the Trails Master Plan would be less than significant.

c-d) Less than Significant Impact. Implementation of the Trails Master Plan would not involve the direct alteration of the course of a stream, river or other drainage pattern such that substantial erosion, siltation, or flooding would occur. Trails Master Plan improvements could impact existing drainage and result in hydromodification effects through increases in impervious surfaces and runoff volumes into the local water system. Each project would be subject to the erosion and runoff control provisions contained in the city's Master Drainage Plan, JRMP, Grading Ordinance, Storm Water Ordinance, and BMP Design Manual, including the preparation of a SWPPP for all applicable construction activities. Projects also would be required to comply with the Floodplain Management Regulations in Chapter 21.110 of the CMC. All trail segments within areas of special flood hazards will comply with the standards of construction, thus serving to limit and control the alteration of existing drainage patterns. As discussed in IX.a, above, the Trails Master Plan lists erosion control measures for trail design and trail maintenance. Adherence to local regulations and Trails Master Plan design and maintenance standards would ensure that watercourses and drainage patterns would not be altered in a manner that would significantly increase the rate or amount of runoff or erosion, or result in significant effects related to flooding. Thus, impacts would be less than significant.

e-f) Less than Significant Impact. Future development and improvements within the Trails Master Plan area could impact the existing drainage system. Each project would be subject to the city's Grading, Drainage and Storm Water Ordinances to ensure compliance with NPDES permit requirements, as well as other applicable federal and state stormwater regulations. As described in IX.a, every construction activity with the potential to negatively affect water quality would be required to prepare a SWPPP and implement standard stormwater requirements. Compliance with applicable federal, state, and local regulations would ensure that runoff from Trails Master Plan improvements would not exceed the capacity of existing or planned storm drain systems or generate substantial pollutant runoff. Impacts would be less than significant.

g-h) No Impact. Some Trails Master Plan improvements may occur within a 100-year flood hazard area as designated by the Federal Emergency Management Agency (FEMA). However, implementation of the Trails Master Plan would not place housing within a 100-year flood hazard area, nor would it place structures within floodplain areas that would impede or redirect flood flows. The city's Floodplain Management Regulations (CMC Chapter 21.100) restrict or prohibit land uses considered unsafe in a floodplain. Projects would be reviewed by the city's Land Development Engineering Division for flooding potential and analyzed to ensure that substantial changes to drainage would not occur such that flood flows would be impeded or redirected. No impact would occur.

i) Less than Significant Impact. Dam inundation zones within the city are depicted in Figure 3.8-2 of the General Plan EIR. Several proposed trail projects 7A (west of I-5), 7B, 7C, 7D, 7E, 7F, 7G, 9A, 9B, 9C, 9D, and 9G) are located within the dam inundation zones of Pechstein Dam, Maerkle Dam and Reservoir, and Calavera Lake. As described in VIII.g-h, implementation of the Trails Master Plan is not anticipated to result in significant impacts related to placing structures within 100-year flood hazard areas. Additionally, the city requires a special use permit for any development proposed in areas of special flood hazards and areas of flood-related erosion hazards (CMC Chapter 21.110). Development pursuant to the Trails Master Plan would be required to comply with General Plan, Public Safety Element, goals and policies (Goal 6-G.1 and Policies 6-P.4 through 6-P.11) that would further reduce the risk of loss, injury, or death due to flooding as a result of a dam or levee failure. Thus, impacts would be less than significant.

j) Less than Significant Impact. A seiche is a large wave generated in an enclosed or semi-enclosed body of water, often caused by ground-shaking associated with seismic activity. Potential effects from seiches include flooding damage and related hazards in areas surrounding the water bodies. Tsunamis are large ocean waves generated by fault displacement or major ground movement. The primary areas susceptible to tsunamis are those near the ocean and along low-lying river channels. Tsunami risk areas within the city are depicted in Figure 3.8-3 of the General Plan EIR. The high risk areas associated with seiches and tsunami run-up are in the immediate vicinity of the Buena Vista, Agua Hedionda, and Batiquitos Lagoons. Tsunami risk is also high along the coastline. Trails Master Plan improvements to be built by the city, private applications, or other public agencies that would be located in these risk areas include 7A (west of I-5), 7B, 7F, 10A, 12A, 12D, and 12E. Trails Master Plan improvements would be required to comply with the city's regulations pertaining to coastal development (e.g., CMC Chapters 21.110 and 21.204) and conduct appropriate studies to address potential impacts related to flooding effects of tsunamis and/or seiches, as applicable. Thus, impacts due to inundation from a seiche or tsunami would be less than significant.

As noted in VI.a.iii, a.iv, and c, Trails Master Plan improvements are not located within an area prone to landslides, lateral spreading, subsidence, or collapse. As such, trails would not be located within the vicinity of slopes potentially capable of producing mudslides, nor does the

Trails Master Plan directly propose housing, structures, or uses that would be subject to significant risk of loss, injury, or death from mudflows. For these reasons, no impacts associated with mudflow would occur.

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

a) No Impact. Implementation of the proposed Trails Master Plan would not physically divide an established community. The Trails Master Plan would improve connectivity between the various communities of the city by providing new routes of travel and new methods (e.g., walking or bicycling) to travel between these communities. No new roads, structures, or other improvements would be developed that would separate neighborhoods or physically divide an established community. Thus, no impacts would occur.

b) Less than Significant Impact. The Trails Master Plan provides a planning framework for a trails network in the city. The Trails Master Plan has been developed to be consistent with and complementary to the General Plan, the California Coastal Act (Coastal Act) and the associated City of Carlsbad LCP, and the city’s Zoning Code. The consistency with the General Plan is further demonstrated in Table 5, *Demonstration of General Plan Consistency*, which highlights many of the various goals, policies, and other provisions of the General Plan with which the Trails Master Plan complies. The table is not meant to be exhaustive; instead, it provides a consistency analysis over a broad section of General Plan Elements. The Trails Master Plan is generally consistent with the General Plan except for Figure 4-4, Existing and Planned Future Recreational Trails, which is superseded by this Trails Master Plan. To achieve consistency between the General Plan and the Trails Master Plan, the Open Space, Conservation, and Recreation Element of the General Plan will be amended to remove Figure 4.4 and modify text and policies to incorporate the Trails Master Plan by reference.

**Table 5
 DEMONSTRATION OF GENERAL PLAN CONSISTENCY**

General Plan Goals & Policies	Consistency
Land Use and Community Design Element Goals & Policies	
<p>Community Character, Design, and Connectedness Goal 2-G.20 Develop an active ocean waterfront, with new growth accommodated west of Interstate 5, to enable residents and visitors to enjoy more opportunities for dining, shopping, and recreating along the coastline. Develop public gathering places and recreational opportunities along the coastal corridor.</p>	<p>Trail 8A, Coastal Corridor (from Cannon Road to Palomar Airport Road) is a Type 6 paved multi-use trail that provides improved amenities along Carlsbad Boulevard.</p> <p>Trail 10A, Coastal Corridor (from Palomar Airport Road to Poinsettia Lane), is a paved multi-use trail that provides improved amenities along Carlsbad Boulevard.</p>
<p>Beach Access and Waterfront Activity Policy 2-P.53j. Plan and design Carlsbad Boulevard and adjacent public land (Carlsbad Boulevard coastal corridor) according to the following guiding principles [<i>relevant sub bullet included</i>]:</p> <ul style="list-style-type: none"> Reimagining of Carlsbad Boulevard shall be visionary. The reimagined Carlsbad Boulevard corridor will incorporate core community values articulated in the Carlsbad Community Vision by providing: (a) physical connectivity through multi-modal mobility improvements including bikeways, pedestrian trails, and a traffic-calmed street; (b) social connectivity through creation of memorable public spaces; and (c) economic vitality through a combination of visitor and local-serving commercial, civic, and recreational uses and services. 	<p>Trail 12A, Coastal Corridor (from Poinsettia Lane to Batiquitos Lagoon), is a Type 6 paved multi-use trail that provides improved amenities along Carlsbad Boulevard.</p>
<p>Cannon Road Open Space, Farming and Public Use Corridor Goal & Policy 2-G.28 Increase public access and use to the area primarily through the incorporation of public trails and active and passive recreation.</p>	<p>Trail 7C, South Agua Hedionda Lagoon trails (south shore of the lagoon), is a Type 2 & 4 recreational and roadside trail that provides public recreational access.</p>
<p>2-P.64 Enhance public access and public use in the area by allowing compatible public trails, community gathering spaces and public and private, active and passive park and recreation uses.</p>	<p>Trail 7C, South Shore Agua Hedionda Lagoon trails (I-5 to Agua Hedionda Lagoon Discovery Center) are Types 2 & 4 recreational and roadside trails that provide public recreational access.</p>

Table 5 (cont.) DEMONSTRATION OF GENERAL PLAN CONSISTENCY	
General Plan Goals & Policies	Consistency
Land Use and Community Design Element Goals & Policies (cont.)	
<p>Community Character and Design Policy 2-P.45e. & f. Evaluate each discretionary application for development of property with regard to the following specific criteria:</p> <ul style="list-style-type: none"> • Provision of public and/or private usable open space and/or pathways designated in the Open Space, Conservation, and Recreation Element. • Contributions to and extensions of existing systems of streets, foot or bicycle paths, trails and the greenbelts provided for in the Mobility, and Open Space, Conservation, and Recreation Elements of the General Plan 	<p>Numerous trails (including Trails 7B, 7C, 7H, 9A, 9C, and 9E) include Types 1, 2, and 4 facilities that are consistent with the Mobility, and Open Space, Conservation, and Recreation Elements of the General Plan.</p>
<p>Carlsbad Boulevard/Agua Hedionda Center Policy 2-P.83 West of the railroad tracks [<i>relevant sub bullet included</i>]: Redevelop the Encina Power Station site with new community-accessible open spaces along the Agua Hedionda Lagoon and the waterfront (Carlsbad Boulevard).</p>	<p>Trail 7A (west of I-5), Coastal Corridor and Trail 7G Coastal Rail Trail Reach 3 is a Type 6 paved multi-use trail that provides community access along the Agua Hedionda Lagoon and Carlsbad Boulevard.</p>
<p>Murphy Policy 2-P.91 Allow the property's overall residential development capacity to be clustered toward the northern portion of the site to create an open space buffer and recreational trail on the southerly third of the site.</p>	<p>Trail 12D, Batiquitos Lagoon extension is a Type 2 recreational trail is designed to create a recreational trail on the southerly third of the site.</p>
Mobility Element Policies	
<p>Goal 3-G.1 Keep Carlsbad moving with livable streets that provide a safe, balanced, cost-effective, multi-modal transportation system (vehicles, pedestrians, bikes, transit), accommodating the mobility needs of all community members, including children, the elderly and the disabled.</p>	<p>The Trails Master Plan includes non-automotive enhancements throughout the city.</p>
<p>Implementing Policies – street Typology and Multimodal Levels of Service policy 3-P.8 Utilize transportation demand management strategies, non-automotive enhancements (bicycle, pedestrian, transit, train, trails, and connectivity), and traffic signal management techniques as long-term transportation solutions and traffic mitigation measures to carry out the Carlsbad Community Vision.</p>	<p>The Trails Master Plan includes non-automotive enhancements throughout the city.</p>

Table 5 (cont.) DEMONSTRATION OF GENERAL PLAN CONSISTENCY	
General Plan Goals & Policies	Consistency
Mobility Element Policies (cont.)	
<p>Street Design and Connectivity Policies</p> <p>3-P.20 Engage Caltrans, the Public Utilities Commission, transit agencies, the Coastal Commission, and railroad agency(s) regarding opportunities for improved connections within the city, including:</p> <ul style="list-style-type: none"> • Improved connections across the railroad tracks at Chestnut Avenue and other locations. • Completion and enhancements to the Coastal Rail Trail and/or equivalent trail along the coastline. • Improved connectivity along Carlsbad Boulevard for pedestrians and bicyclists, such as a trail. • Improved access to the beach and coastal recreational opportunities. • Improved crossings for pedestrians across and along Carlsbad Boulevard. 	<p>Trails 7A (west of I-5), 7B, and 7E would involve coordination with other agencies such as Caltrans and the NCTD.</p> <p>Trails 7G, 8B, 10B, and 12H would provide enhancements along the Coastal Rail Trail.</p> <p>Trails 8A and 10A would provide enhancements along Carlsbad Boulevard.</p>
<p>Pedestrian and Bicycle Movement Policies</p> <p>3-P.24 Update the pedestrian, trails and bicycle master plans, as necessary, to reflect changes in needs, opportunities and priorities.</p>	<p>Implementation of these policies would be on-going as individual trail segments are proposed for construction.</p>
<p>3-P.25 Implement the projects recommended in the pedestrian, trails and bicycle master plans through the city's capital improvement program, private development conditions and other appropriate mechanisms.</p>	
<p>3-P.32 Require developers to improve pedestrian and bicycle connectivity consistent with the city's bicycle and pedestrian master plans and trails master planning efforts. In addition, new residential developments should demonstrate that a safe route to school and transit is provided to nearby schools and transit stations within a half mile walking distance.</p>	
Open Space, Conservation, and Recreation Element Policies	
<p>Open Space Framework Goal</p> <p>4-G.1 Develop a balanced and integrated open space system reflecting a variety of considerations- resource conservation, production of resources, recreation, and aesthetic and community identity- and ensuring synergies between various open space components and compatibility with land use planning.</p>	<p>Implementation of the Trails Master Plan would assist in implementation of this goal.</p>

Table 5 (cont.) DEMONSTRATION OF GENERAL PLAN CONSISTENCY	
General Plan Goals & Policies	Consistency
Open Space, Conservation, and Recreation Element Policies (cont.)	
<p>Beaches; Parks and Recreation Goal 4-G.8 Coordinate the planning of park facilities and trails with other recreation-oriented land uses such as open space.</p> <p>4-G.10 Increase public access to and use of the Cannon Road Open Space, Farming and Public Use Corridor primarily through the incorporation of public trails and active and passive recreation.</p>	<p>Trail 7C, South Shore Agua Hedionda Lagoon trail is a Type 1 nature trail that provides access to this public use corridor.</p>
<p>Trails and Greenways Goal 4-G.11 Utilize greenways and trails to connect the city's open space network.</p>	<p>Implementation of the Trails Master Plan would utilize greenways and trails to connect the city's open space network.</p>
<p>Habitat and Open Space Conservation Policy 4-P.9 Maintain and implement the city's HMP, including the requirement that all development projects comply with the HMP and related documents. Require assessments of biological resources prior to approval of any development on sites with sensitive habitat, as depicted in Figure 4-3 in Chapter 4 of the General Plan.</p>	<p>Individual trail segments would need to conform to this policy to ensure consistency.</p>
<p>Trails and Greenways Policy 4-P.40 Prepare a comprehensive Trails Master Plan update, that expands the existing and planned 61-mile trail system.</p>	<p>The subject of this report, the Trails Master Plan update, would expand the existing and planned trail system.</p>
<p>Trails and Greenways Policy 4-P.41 Participate with other north county communities to establish an intercommunity open space linkage program and regional trail network.</p>	<p>At the time when trail segments that terminate or are in close proximity to city boundaries are proposed (such as Trails 1B, 2C, 6A, 9D, 9E, 9F, 12A), the city should coordinate with other jurisdictions, such as the cities of Oceanside, Encinitas, and Vista to establish potential linkages with other community trails.</p>
<p>Trails and Greenways Policy 4-P.42 Locate multi-use trails and associated amenities and passive recreational features to minimize impacts to sensitive habitats and other sensitive surrounding land uses, such as residences.</p>	<p>Individual trail segments would need to conform to this policy to ensure consistency. Trails 1D, 2C, 5B, 6A, 7A (west of I-5), 7B, 7C, 7H, 8B, 9A, 9D, 12D, 12E, and 12I have been identified as having a moderate to high potential for biological constraints.</p>

Table 5 (cont.) DEMONSTRATION OF GENERAL PLAN CONSISTENCY	
General Plan Goals & Policies	Consistency
Open Space, Conservation, and Recreation Element Policies (cont.)	
<p>Trails and Greenways Policy 4-P.43 Obtain an irrevocable offer to dedicate or a permanent easement for multi-use trails on privately owned property where feasible, and where trails are proposed as part of the Carlsbad trail system.</p>	<p>This policy would apply to Trails 7B, 7C, 7H, 9A, 9C, and 9E that are within private property.</p>
Arts, History, Culture, and Education Element Policies	
<p>Archaeological and Paleontological Resources Policy 7-P.8 During construction of specific development projects, require monitoring of grading, ground-disturbing, and other major earthmoving activities in previously undisturbed areas or in areas with known archaeological or paleontological resources by a qualified professional, as well as a tribal monitor during activities in areas with cultural resources of interest to local Native American tribes. Both the qualified professional and tribal monitor shall observe grading, ground-disturbing, and other earthmoving activities.</p>	<p>Individual trail segments would need to conform to this policy to ensure consistency. Trails 1D, 2C, 5B, 6A, 7A (west of I-5), 7B, 7C, 7D, 7E, 7H, 9A, 9C, 9D, 12A, 12D, 12E, 12F, 12I, and 12J have been identified as having a moderate to high potential for cultural resource constraints.</p>
<p>Archaeological and Paleontological Resources Policy 7-P.9 Ensure that treatment of any cultural resources discovered during site grading complies with the City of Carlsbad Cultural Resource Guidelines. Determination of the significance of the cultural resource(s) and development and implementation of any data recovery program shall be conducted in consultation with interested Native American tribes. All Native American human remains and associated grave goods shall be returned to their most likely descendent and repatriated. The final disposition of artifacts not directly associated with Native American graves shall be negotiated during consultation with interested tribes; if the artifact is not accepted by Native American tribes, it shall be offered to an institution staffed by qualified professionals, as may be determined by the City Planner. Artifacts include material recovered from all phases of work, including the initial survey, testing, indexing, data recovery, and monitoring.</p>	<p>Individual trail segments would need to conform to this policy to ensure consistency.</p>
<p>Archaeological and Paleontological Resources Policy 7-P.10 Require consultation with the appropriate organizations and individuals (e.g., Information Centers of the California Historical Resources Information Systems [CHRIS], the Native American Heritage Commission [NAHC], and Native American groups and individuals) to minimize potential impacts to cultural resources that may occur as a result of a proposed project.</p>	<p>Individual trail segments would need to conform to this policy to ensure consistency.</p>

Proposed trails within the coastal zone include 1A, 1B, 1D, 7A (west of I-5), 7B, 7C, 7D, 7E, 7G, 7H, 8A, 8B, 10A, 10B, 10C, 10D, 12A, 12D, 12E, 12F, 12H, 12I, and 12J. The Coastal Act requires that coastal zone policies and provisions be implemented through preparation of a LCP. Through its approved LCP, the city acts as the local permitting authority for the issuance of Coastal Development Permits (CDPs) for projects located within its permit jurisdiction and the California Coastal Commission (CCC) has permitting authority within the areas of deferred certification. All projects in the city’s coastal zone would require review for consistency with the LCP and Coastal Act prior to issuance of a CDP. Individual Trails Master Plan projects located in sensitive habitat would require issuance of CDPs to ensure that impacts would be less than significant; other individual projects may also require issuance of CDPs, particularly those located outside of public rights-of-way.

The city’s LCP splits the coastal zone into six segments: Mello I, Mello II, Village Area, Agua Hedionda Lagoon, West Batiquitos Lagoon/Sammis Properties Lagoon, and East Batiquitos Lagoon/Hunt Properties. The Trails Master Plan consistency with the LCP is demonstrated in Table 6, *Demonstration of Local Coastal Program Consistency*, which highlights a brief list by Segment of standard policies and other provisions of the LCP with which the Trails Master Plan complies. No trails would occur within the Village Area Segment; therefore, it is not included in the table.

Table 6 DEMONSTRATION OF LOCAL COASTAL PROGRAM CONSISTENCY	
LCP Goals & Policies	Consistency
Agua Hedionda	
<p>5.9 Public works improvements shall be provided as follows:</p> <p>(c) Dedication of easements and provisions for funding all public improvements required by this plan and other City plans and ordinances, shall be a requirement for new development. Improvements shall include utility extensions, roadways, bicycle and pedestrian access designated viewpoints, and any other public improvements necessary to accommodate the proposed development. Public access trails to and along the lagoon shall be provided consistent with the Pedestrian Access Plan (Exhibit J) where feasible, in consultation with the Department of Fish and Wildlife. Public access, and parking on interior streets shall be required as a condition of coastal development approval at the subdivision stage either through a public street system, public access easements or deed restriction. No private gated communities which preclude the general public from parking and accessing public trails along the lagoon shall be permitted.</p>	<p>Trails 7A (west of I-5), Coastal Corridor, 7D Park Drive Trail, 7E Hallmark East Trail, and Trail 7G Coastal Rail Trail Reach 3 are Types 1, 4, 6 trails that would be developed by the City that provide community access along the Agua Hedionda Lagoon and Carlsbad Boulevard.</p> <p>Trail 7B, North Shore Agua Hedionda Lagoon trail (I-5 to Cove Drive) and 7C, Trail South Shore Agua Hedionda Lagoon trail (I-5 to Agua Hedionda Lagoon Discovery Center) are Types 1, 2, and 4 trails that would be developed by private entities but provide public access to trails along the lagoon.</p>

Table 6 (cont.) DEMONSTRATION OF LOCAL COASTAL PROGRAM CONSISTENCY	
LCP Goals & Policies	Consistency
Mello I	
<p>Policy 3 – Drainage, Erosion Control</p> <p>b. Prior to making land use decisions, the city shall utilize methods available to estimate increases in pollutant loads and flows resulting from proposed future development. The city shall require developments to incorporate structural and non-structural best management practices (BMPs) to mitigate the projected increases to pollutant loads and minimize any increases in peak runoff rate.</p> <p>c. Water pollution prevention methods shall be implemented to the maximum extent practicable, and supplemented by pollutant source controls and treatment. Small collection strategies located at, or as close as possible to, the source (i.e., the point where water initially meets the ground) to minimize the transport of urban runoff and pollutants offsite and into a municipal separate storm sewer system (MS4) shall be utilized.</p> <p>d. Post-development runoff from a site shall not contain pollutant loads which cause or contribute to an exceedance of receiving water quality objectives or which have not been reduced to the maximum extent practicable.</p>	<p>See Section IX of this Initial Study. The Trails Master Plan would comply with the applicable requirements for drainage and erosion control.</p>
Mello II	
<p>Policy 1-1</p> <p>Allowable uses are those that are consistent with both the General Plan and the Local Coastal Program.</p>	<p>The Trails Master Plan proposes uses that would be consistent with the General Plan and Local Coastal Program, as demonstrated in this section.</p>
<p>Policy 3-1 – Carlsbad HMP</p> <p>The Carlsbad HMP is a comprehensive, citywide program to identify how the city, in cooperation with federal and state agencies, can preserve the diversity of habitat and protect sensitive biological resources within the city and the Coastal Zone.</p>	<p>As described under Section IV.e and f of this Initial Study, the Trails Master Plan is consistent with the HMP. Implementation of mitigation measures BIO-1 through BIO-8 would ensure that the Trails Master Plan projects are planned and constructed consistent with local ordinances pertaining to biological resources, including those related to the HMP.</p>

Table 6 (cont.) DEMONSTRATION OF LOCAL COASTAL PROGRAM CONSISTENCY	
LCP Goals & Policies	Consistency
Mello II (cont.)	
<p>Policy 3-4 – Grading and Landscaping Requirements</p> <p>c. The city shall require developments to incorporate structural and non-structural BMPs to mitigate the projected increases to pollutant loads and minimize any increases in peak runoff rate.</p> <p>d. Water pollution prevention methods shall be implemented to the maximum extent practicable, and supplemented by pollutant source controls and treatment. Small collection strategies located at, or as close as possible to, the source (i.e., the point where water initially meets the ground) to minimize the transport of urban runoff and pollutants offsite and into a municipal separate storm sewer system (MS4) shall be utilized.</p> <p>e. Post-development runoff from a site shall not contain pollutant loads which cause or contribute to an exceedance of receiving water quality objectives or which have not been reduced to the maximum extent practicable.</p>	<p>See Section IX of this Initial Study. The Trails Master Plan would comply with the applicable requirements for grading and landscaping.</p>
<p>Policy 4-4 - Removal of Natural Vegetation</p> <p>When earth changes are required and natural vegetation is removed, the area and duration of exposure shall be kept at a minimum.</p>	<p>As described under Section IV of this Initial Study, the Trails Master Plan through implementation of mitigation measures BIO-1 through BIO-8 would minimize impacts to biological resources.</p>
<p>Policy 8-4 – Archaeological and Paleontological Resources</p> <p>The environmental impact review process will determine where development will adversely affect archaeological and paleontological resources. A site-specific review should also determine the most appropriate methods for mitigating these effects. Most importantly, the City of Carlsbad should require the implementation of these measures.</p>	<p>As described under Section V of this Initial Study, the Trails Master Plan would implement mitigation measures CUL-1 through CUL-4 and PALEO-1 to minimize impacts to cultural and paleontological resources, including a cultural resources site survey and a paleontological resource assessment.</p>

Table 6 (cont.) DEMONSTRATION OF LOCAL COASTAL PROGRAM CONSISTENCY	
LCP Goals & Policies	Consistency
West Batiquitos Lagoon/Sammis Properties	
C.a. - Because the area is located close to environmentally sensitive habitats, all development must include mitigation measures for the control of urban runoff flow rates and velocities, urban pollutants, erosion and sedimentation in accordance with the requirements of the city's Grading Ordinance, Storm Water Ordinance, Standard Urban Storm Water Mitigation Plan (SUSMP), City of Carlsbad Drainage Master Plan, and the following additional requirements. The SUSMP, dated April 2003 and as amended, and the City of Carlsbad Drainage Master Plan are hereby incorporated in the LCP by reference. Development must comply with the requirements of the Jurisdictional Urban Runoff Management Program (JURMP) and the San Diego County Hydrology Manual to the extent that these requirements are not inconsistent with any policies of the LCP.	See Section IX of this Initial Study. The Trails Master Plan would comply with the applicable requirements for urban runoff, pollutants, and erosion and sedimentation.
C.b. - Drainage and runoff shall be controlled so as not to exceed the capacity of the downstream drainage facilities or to produce erosive velocities and appropriate measures shall be taken on and/or off the site to prevent the siltation of the Batiquitos Lagoon and other environmentally sensitive areas.	See IX. Existing drainage patterns of the surrounding area, such as concentrated drainage channels, would be maintained.
G. - A program of preservation and/or impact mitigation regarding archaeological sites located on the affected area shall be completed prior to any development.	See V. Mitigation for cultural resource impacts are included for Trails Master Plan projects to reduce impacts to a less than significant level.
East Batiquitos Lagoon/Hunt Properties	
4.(1) - Batiquitos Lagoon is the primary coastal resource within the subject area and warrants stringent controls on upstream development activities. Downstream impacts of possible erosion and sedimentation due to development must be limited to insignificant levels. Many slope areas on the property contain sensitive vegetation and support a variety of wildlife species. Slope areas also pose possible geologic hazards and require close development review.	See Section IX of this Initial Study. The Trails Master Plan would comply with the applicable requirements for erosion, sedimentation, and slopes. As described under Section IV, the Trails Master Plan through implementation of mitigation measures BIO-1 through BIO-8 would minimize impacts to biological resources.
5. In order to guard against introduction of any species which are inherently noxious to or incompatible with adjacent lagoon habitat, drought tolerant plants and native vegetation shall be used in areas of proximity to the wetland, to the maximum extent feasible.	As discussed under Section XVII.b of this Initial Study, drought-tolerant landscaping would be used where applicable.

Future development within the Trails Master Plan area would be required to be consistent with the General Plan, Zoning Code, Coastal Act, and LCP, as applicable. Based on these considerations, conflicts with applicable plans and regulations would be less than significant.

c) No Impact. The proposed Trails Master Plan is intended to implement the city’s General Plan and future development and maintenance of trails within the city and would be required to be consistent with the applicable General Plan goals and policies designed to protect the environment. In addition, mitigation measure BIO-4 would require future development that could potentially impact sensitive Habitat Group types identified in the HMP to mitigate for those impacts in accordance with the HMP. Thus, impacts on applicable plans and policies intended to protect the environment would not occur.

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

a-b) No Impact. Implementation of the Trails Master Plan would not result in significant impacts to known mineral resources. According to the General Plan EIR, no mineral resources of economic value have been identified within the Trails Master Plan area of the city. Carlsbad has not been delineated as a locally important mineral recovery site. Therefore, no mineral resource impacts would occur as a result of implementation of the Trails Master Plan.

XII. NOISE				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

XII. NOISE Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) Less than Significant Impact. Trails Master Plan improvements would be subject to several local regulations pertaining to noise, including the City of Carlsbad Noise Guidelines Manual CMC Chapter 8.48, and General Plan Noise Regulations and Noise Exposure Standards.

CMC Chapter 8.48 outlines regulations for limitation of hours for construction (i.e., the erection, demolition, alteration, or repair of any building or structure or the grading or excavation of land) that creates disturbing, excessive, or offensive noise. Construction can occur Monday through Friday from 7 a.m. to 6 p.m. and Saturday from 8 a.m. to 6 p.m.; no work shall be conducted on Sundays and any federal holiday. CMC Chapter 8.48 also outlines exceptions that may be granted by the city for circumstances such as emergency repairs required to protect the health and safety of the community.

Construction of Trails Master Plan projects may require light construction equipment. For dirt trails, light construction equipment such as a small skid steer loader and hand tools to bring materials and provide compaction may be used. For paved trails, similar tools to the dirt trails may be used along with an asphalt spreader or vibratory roller. Construction activities may increase noise temporarily; however, construction in a specific area would be of short duration due to the nature of trail construction. In addition, all construction activities would comply with construction regulations in the Noise Guidelines Manual, Noise Ordinance (CMC Chapter 8.48), and General Plan Noise Element goals and policies, including limits on the days and hours of construction activities. Thus, construction noise impacts from the Trails Master Plan would be less than significant.

Operational noise resulting from implementation of the Trails Master Plan would include noise that is typical of passive recreational noise. Noise from people talking and dogs barking would contribute to ambient noise levels within the vicinity of the trails. However, it is unlikely that the use of the trails would generate a measurable increase in ambient noise levels or exceed the noise standards for existing uses located within the vicinity of the trails. Thus, operational noise impacts from the Trails Master Plan would be less than significant.

b) Less than Significant Impact. As stated in Chapter 3.10, Noise, of the General Plan EIR, excessive ground-borne and vibration is typically caused by activities such as blasting or pile driving, which were the primary sources of ground-borne vibration related to construction. Heavy construction machinery, such as bulldozers, heavy trucks, etc., typically produces negligible levels of ground-borne vibration beyond a distance of 25 feet (City 2015). Construction activities for implementation of the Trails Master Plan would not involve the use of heavy construction

equipment such as pile driving. Compaction of the paved trails may use a light vibratory compactor, which may cause temporary vibration. The use of this equipment would not be considered heavy construction, however, and would not occur near any vibration-sensitive land use for a prolonged period of time. Thus, construction activities would not be expected to generate significant ground-borne vibration and impacts would be less than significant.

c) Less than Significant Impact. As discussed in XII.a above, the Trails Master Plan improvements would be subject to several local regulations pertaining to noise, including the City of Carlsbad Noise Guidelines Manual, Noise Ordinance (CMC Chapter 8.48), and General Plan Noise Element goals and policies. Impacts related to increases in ambient noise levels would be less than significant.

d) Less than Significant Impact. As discussed in XII.a, above, construction of Trails Master Plan improvements is expected to generate noise levels temporarily above existing ambient levels. However, compliance with the Noise Guidelines Manual, Noise Ordinance (CMC Chapter 8.48), and General Plan Noise Element goals and policies would reduce potential short-term noise impacts to less than significant.

e) Less than Significant Impact. Trails Master Plan projects are located as close as 0.75 mile from McClellan-Palomar Airport. Eight of the projects proposed to be built by the city, private applicants, or other public agencies are located within 2 miles of the airport (6A, 7C, 7E, 9A, 9C, 9D, 10C, 10D, and 12F). The allowable noise exposure for outdoor activity areas per General Plan EIR, Chapter 3.10, Noise, Table 3.10-3 for recreational uses is 65 CNEL. One Project, 10C, falls within the 60 CNEL noise contour for the airport; however, no projects fall within the 65 CNEL noise contour. Therefore, the Trails Master Plan projects would not be subjected to excessive noise levels and impacts would be less than significant.

f) No Impact. No private airstrips are located within the vicinity of the Trails Master Plan area. Therefore, noise impacts would not result for people residing or working in the area from a private airstrip.

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

a) Less than Significant Impact. The Trails Master Plan does not include the development of housing and implementation of the plan would not directly induce population growth. The approval of the Trails Master Plan would not provide substantial new employment that would foster migration. Development of trails may make an area more desirable to an individual or group of

individuals; however, it is not anticipated to result in substantial indirect population growth in an area. Thus, impacts related to population growth inducement would be less than significant.

b-c) No Impact. The recommended infrastructure improvements would occur primarily within existing rights-of-way or open space and would not affect existing housing or displace any residents. No impacts are anticipated.

XIV. PUBLIC SERVICES Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, a need for new or physically altered government 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:				
i. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a.i) Less than Significant Impact. The Carlsbad Fire Department provides fire and emergency services within the city, serving an approximately 39-square-mile area. The approval of the Trails Master Plan may increase the number of trail users (e.g., pedestrians, and bicyclists users) in the city. An increase in trail users has the potential to result in an increase in emergencies necessitating fire department response. Trails Master Plan projects would be subject to the city’s policies and codes for hazard mitigation and fire prevention (including General Plan, Land Use and Community Design Element Goal 2-G.22 and Policies 2-P.58, 2-P.60, 2-P.61, and Public Safety Element Goals 6-G.1, and 6-G.3, and Policies 6-P.28, 6-P.31, 6-P.32, 6-P.33, 6-P.34, and 6-P.35), as well as plan review by the city’s Fire Prevention Division. Upgrades to existing stations may be required in order to meet service demands, but would not likely cause substantial adverse physical impacts as they would be subject to the city’s building and construction codes that minimize environmental impacts of new development. Thus, impacts on fire protection services would be less than significant.

a.ii) Less than Significant Impact. The Carlsbad Police Department provides police services within the city. The proposed Trails Master Plan may increase the number of trail users (e.g., pedestrians, and bicyclists users) in the city. An increase in the number of trail users has the potential to result in an increase in emergencies necessitating police protection. The trail areas are currently served by police services and trail development would continue to be adequately served. Meeting facilities needs for an expanded Police Department to serve the additional trail use would not necessarily require new construction or physically altering an existing facility. Physical planning and community design practices encouraged in the General

Plan, Land Use and Community Design Element Goal 2-G.22, and Policy 2-P.60, and Public Safety Element Goal 2-G.22 and Policies 6-P.27, 6-P.29, 6-P.30, and 6-P.32) would be implemented for future development within the Trails Master Plan area to ensure that impacts related to police services are addressed and/or reduced. Thus, impacts on police services would be less than significant.

a.iii) No Impact. The Trails Master Plan would not generate students; therefore, it would not increase the demand for schools in the area. Thus, no impact would occur.

a.iv) Less than Significant Impact. The proposed project could increase access to parks to a minimal degree, potentially increasing demand for park and recreation services, but it is unlikely that any such increase would be large enough to require facility upgrades or increased services. Thus, no impact would occur.

a.v) No Impact. Development of the Trails Master Plan projects would not increase population or otherwise affect demand for other public facilities, such as libraries, within the plan area and no new facilities would be required that could result in adverse physical changes in the environment. Thus, no impact would occur.

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

a) Less than Significant Impact. As described in XIII.a, above, the approval of the Trails Master Plan would not induce substantial population growth. While the recommended infrastructure improvements may result in the increased use of existing parks and other recreational facilities due to increased accessibility of these facilities along the improved trail network, the increase in use of existing parks and recreational facilities would be throughout the city and would not be concentrated on a particular facility. In addition, the Trails Master Plan does not propose any residential uses that may increase the use of existing neighborhood and regional parks or other recreational facilities in the vicinity. Thus, increased access and use would not result in the substantial physical deterioration of existing parks and recreational facilities and impacts would be less than significant.

b) Less than Significant with Mitigation Measures Incorporated. The Trails Master Plan provides a planning framework for a trails network in the city. Potential environmental effects resulting from the proposed trail projects are analyzed in this document. As discussed in IV, *Biological Resources*, and V, *Cultural Resources*, proposed projects could result in potentially

significant impacts related to biological and cultural resources. Implementation of the mitigation measures identified in these sections would reduce impacts to below a level of significance.

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

a) No Impact. The city’s General Plan Mobility Element identifies specific priorities for the circulation roads within the city. The goal of the priority system is to recognize that roadways are not solely intended to accommodate vehicular travel. It recognizes that, in certain areas of the city, the primary function of the roadways is to accommodate pedestrians, bicyclists and transit riders. The General Plan emphasizes that the community’s vision includes better pedestrian and bicycle connections between neighborhoods, destinations, and different parts of the community, and a balanced transportation system rather than a singular focus on automobile movement.

In the General Plan, this vision is partly realized by an update to the trail network through the creation of the Trails Master Plan analyzed in this document. The Trails Master Plan identifies existing and proposed trails within the city that will integrate with other transportation system

elements. The upgrade of existing trails and creation of new trails would not be expected to generate significant vehicle trips, and may in fact reduce vehicle trips by improving accessibility. Thus, the Trails Master Plan would be consistent with the city's General Plan and no impacts would occur.

b) No Impact. As discussed in XVI.a, the Trails Master Plan would potentially alleviate traffic congestion by encouraging travel by pedestrians or bicyclists instead of motorized vehicles. In addition, in 2009, the San Diego Association of Governments (SANDAG), acting as the County Congestion Management Agency, employed an "opt out" option defined in Assembly Bill (AB) 2419. The congestion management program is no longer relevant to development in the City of Carlsbad. Thus, no impact would occur.

c) No Impact. As discussed in VII.e and XI.e, some Trails Master Plan projects lie within the McClellan-Palomar Airport Influence Area, Avigation Easement Area, and/or the Airport Overflight Notification Area. However, the proposed projects would not include any aviation components or structures that would interfere with air traffic patterns. Thus, implementation of the Trails Master Plan would have no impact on airport operations.

d) Less than Significant Impact. The types of trails to be implemented would not add design hazards such as sharp curves or dangerous intersections to existing roadways. Most trails would be separated from nearby roadways or run through areas with no roadways. Trail Type 5 would install typical sidewalks along roadways to connect trails; the installation of these sidewalks would not add design hazards. Gates would be installed where motorized vehicles may attempt to access a trail. Where trails must cross a roadway, the crossings would be designed and constructed to city standards with proper signage and street markers. Bridges and trails near slopes or other safety hazards would install appropriate railing or fencing. In addition, as discussed in Section 7.6 of the Trails Master Plan, trails would be constructed and operated in accordance with the design standards, guidelines, and operations as set forth in Trails Master Plan Chapters 6 and 7. Thus, impacts would be less than significant.

e) Less than Significant Impact. All trails would adhere to the city's Trail Maintenance Standards (see Section 8.5G of the Trails Master Plan). Under these standards, the trails shall be cleared and maintained in a manner that ensures that emergency (police and fire) vehicles have access to the trail. Emergency access for safety, security, or maintenance purposes is based on an established protocol between the parks, fire and police departments. Protocol would be developed along with an Emergency Plan that will be developed by each department. The initial responding party will notify the other departments as soon as possible. If removable bollards are installed all appropriate police and fire personnel would have the keys for access. Thus, the Trails Master Plan would not result in inadequate emergency access and impacts would be less than significant.

f) No Impact. The Trails Master Plan would promote the use of alternative modes of transportation by increasing accessibility of pedestrian and bicycle routes through the city. The Trails Master Plan would be consistent with adopted plans such as the General Plan, in particular the Mobility Element, and its support for alternative transportation, which states that the Trails Master Plan will integrate with other transportation system elements. Thus, no impact would occur.

XVII. TRIBAL CULTURAL RESOURCES Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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:				
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	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a.i and a.ii) Less than Significant with Mitigation Measures Incorporated. Tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either included or determined to be eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources, as defined in subdivision (k) of Public Resources Code Section 5020.1, or determined to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1. As discussed in V.a, the Trails Master Plan area contains archaeological resources that may be considered of cultural value to California Native American tribes. As a result, future development pursuant to the Trails Master Plan will be required to implement mitigation measures CUL-1 through CUL-4 in order to address potentially significant impacts to archaeological resources. In addition, future development projects would be required to implement the applicable General Plan goals and policies pertaining to archaeological resources, including Policies 7-P.7, 7-P.8, 7-P.9 and 7-P-10.

The San Luis Rey Band of Mission Indians (SLR) requested notification of projects for AB 52 consultation from the city on June 22, 2015, for projects in which the city is the lead agency. Accordingly, the city contacted SLR regarding the project on January 28, 2016 and met with SLR on February 10, 2016. After the meeting, SLR requested formal tribal consultation specific to the project in a February 11, 2016 letter. In the letter, SLR requested consultation on alternatives, mitigation measures, and significant effects of the project, specifically with regards to tribal cultural

resources. In addition, SLR requested they be sent any cultural resources assessments completed as part of the project. The Torres Martinez Desert Cahuilla Indians requested AB 52 consultation on May 11, 2016, but did not respond to follow up communication by the city. The Native American consultation process is ongoing.

Implementation of mitigation measures CUL-1 through CUL-4 would reduce potential impacts to tribal cultural resources to less than significant.

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

a) Less than Significant Impact. Portable toilets or permanent restrooms may be provided at trail staging areas. A restroom would only be provided if high demand warranted it; it is likely that most trails would not require a restroom. Thus, implementation of the Trails Master Plan would likely generate a small amount of wastewater that would not be expected to exceed wastewater treatment requirements or require the construction of new wastewater treatment facilities, and impacts would be less than significant.

b) Less than Significant Impact. As stated above in XVII.a, regarding wastewater facilities, construction may require water use for inhibiting the generation of fugitive dust and the

establishment of drought-tolerant landscaping. Trails Master Plan projects may contain water fountains and restrooms. Both construction and operational water use would not result in a significant increase in demand for water or the need for the construction or expansion of water treatment facilities. Thus, impacts would be less than significant.

c) Less than Significant Impact. Development and improvement projects conducted pursuant to the Trails Master Plan would include improvements to existing developed/disturbed areas, as well as construction of new trails within undisturbed areas. The majority of the proposed projects are not anticipated to result in the need for new storm water drainage facilities or expansion of existing facilities due to increased storm water; however, in some cases, increased storm water could result in the need for measures (e.g., bioswales) to treat and convey storm water to prevent flooding and adverse water quality effects. Bioswales and storm water facilities would be developed within existing public rights-of-way or within the development footprint of the trails, as necessary. As described in IX.a, for the proposed projects that would disturb greater than one acre of land or create more than 5,000 square feet of impervious surfaces, or otherwise pose a threat to storm water quality, compliance with post-construction priority development project requirements provided in the City of Carlsbad Engineering Standards Volumes 4 and 5 and Grading and Drainage Ordinances would be required, as well as preparation of a SWPPP and a Storm Water Quality Management Plan (SWQMP) for all applicable construction activities. Compliance with the city's regulations and ordinances for grading, drainage, and storm water would ensure that the capacity of the existing storm drain systems would not be exceeded, and that new and/or retrofitted facilities would be provided, as necessary. Impacts would be less than significant.

d) Less than Significant Impact. As stated above in XVII.b, minimal water use would be required during construction (dust control and landscaping establishment) and operation (fountains and restrooms). This minimal water use would not generate a significant increased demand for water that would require new or expanded entitlements; thus, impacts are less than significant.

e) Less than Significant Impact. As stated above in XVII.a, Temporary or permanent restrooms may be provided at trail staging areas. Thus, implementation of the Trails Master Plan would likely generate a small amount of wastewater; however, the minimal amount would not be expected to exceed wastewater treatment facilities capacity.

f) Less than Significant Impact. Solid waste associated with implementation of the Trails Master Plan would be generated by construction activities and by trail users (trash receptacles would be provided on some trails). The amount of waste generated from construction and operation would be anticipated to be minimal. The city has a contract with Waste Management of North County for the disposal of solid waste generated by existing and future residents and businesses within the city. According to the General Plan EIR Section 3.12, Waste Management of North County has sufficient capacity for solid waste processing and disposal for the anticipated increase in population at buildout of the General Plan. Since the Trails Master Plan is not anticipated to increase solid waste generation above the generation rates assumed in the General Plan EIR, impacts to solid waste facilities would be less than significant.

g) No Impact. As stated above in XVII.f, Implementation of the Trails Master Plan would comply with all applicable federal, state, and local statutes and regulations related to solid waste disposal during construction and operation. Thus, no impacts would occur.

XIX. MANDATORY FINDINGS OF SIGNIFICANCE Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects, which will cause the substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) Less Than Significant with Mitigation Measures Incorporated. As discussed in IV, *Biological Resources*, future development and improvements associated with the Trails Master Plan could potentially impact sensitive biological resources. As discussed in V, *Cultural/Paleontological Resources*, impacts to unknown buried cultural resources also could occur during construction of future trails projects. The potential to degrade environmental quality would be reduced to below a level of significance through implementation of mitigation measures BIO-1 through BIO-8 identified in IV and mitigation measures CUL-1 through CUL-4 and PALEO-1 identified in V.

b) Less Than Significant Impact. Cumulative impacts are defined as two or more individual project effects that, when considered together or in concert with other projects, combine to result in a significant impact (CEQA Guidelines Section 15355). The proposed Trails Master Plan implements and is consistent with the city’s General Plan and land use designations. As stated in Chapter 5 of the recirculated portions of the General Plan EIR, air quality, transportation, noise, and GHG emissions impacts identified in the EIR are considered cumulatively significant in nature because the analysis is projected to the year 2035 and includes regional growth. Cumulative effects on land use character, water quality, biological resources, hazardous materials, and historical resources were all identified as being less than cumulatively considerable. Section 15152(f)(1) of CEQA Guidelines states “Where a Lead Agency determines that a cumulative effect has been adequately addressed in the prior EIR, that effect is not treated as significant for purposes of a later EIR or negative declaration.” The Trails Master Plan adheres to all land use plans and policies with jurisdiction in the city, and feasible mitigation measures, including those identified in the General Plan EIR (and incorporated by reference herein), will apply as appropriate

to future improvements and development conducted pursuant to the Trails Master Plan. Therefore, cumulative impacts would be less than significant.

c) No Impact. The proposed Trails Master Plan does not propose environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly. Adherence to regulatory codes, ordinances, regulations, standards, and guidelines would ensure that construction and operation of future development and improvement projects conducted pursuant to the Trails Master Plan would not result in substantial adverse direct or indirect effects on humans.

XIX. LIST OF MITIGATION MEASURES

Mitigation Measure BIO-1: Project-Specific Biological Surveys. Prior to approval of any development for Trails Master Plan projects 1D, 2C, 5B, 5C, 6A, 7A (west of I-5), 7D, 8B, 9D, and 10B, a project-specific biological survey shall be conducted by the city to verify potential direct and indirect impacts to sensitive biological resources.

Prior to approval of any development for Trails Master Plan projects 7B, 7C, 7H, 9A, 9C, 12D, 12E, 12I, and 12J, a biological survey shall be conducted by the private applicant or other public agency developing the trail to verify potential direct and indirect impacts to sensitive biological resources.

Trails Master Plan projects 1B, 1C, 2A, 5A, 10C, 10D, 12F, 12H, and 13A shall be contained within disturbed and developed areas associated with the existing utility roadbed or dirt trail footprints. In the unexpected event that these trails cannot be restricted to the existing disturbed and developed areas, then prior to approval of any development for these trails, a project-specific biological survey shall be conducted by the city to verify potential direct and indirect impacts to sensitive biological resources.

Project-specific biological surveys shall field-verify existing habitat on and immediately adjacent to planned trails; identify potential opportunities for alternative trail siting to avoid sensitive biological resources; and identify opportunities for incorporating setbacks and buffers from sensitive biological resources that will be avoided.

If, after completion of project-specific biological surveys, the trails can be designed to avoid impacts to sensitive biological resources and incorporate appropriate buffers, then no additional actions with respect to biological resources shall be required.

If, after completion of project-specific biological surveys, the trails cannot be designed to avoid impacts to sensitive biological resources and incorporate appropriate buffers, then a project-specific biological technical report shall be prepared to support additional environmental review of the trails. The report shall document the results of the project-specific surveys and implement mitigation measures BIO-2 through BIO-8, as applicable, and/or propose additional project-specific mitigation for impacts where measures proposed herein do not apply.

Mitigation Measure BIO-2: Rare Plant Surveys and Mitigation. If the project-specific studies identify potential impacts to suitable habitat for sensitive plant species, then, as applicable, the city, private applicant, or other public agency shall perform rare plant surveys (i.e., focused surveys for sensitive plants) to determine the presence or absence of sensitive plants within potential impact areas. The city, private applicant, or other public agency shall avoid sensitive plants to the greatest extent feasible to successfully implement the Trails Master Plan and demonstrate consistency with the city's HMP requirements. Impacts to habitat occupied by sensitive plant species shall be mitigated in accordance with mitigation measure BIO-4.

Trails Master Plan projects with the potential to impact narrow endemic species identified in Table 10 (page D-112) of the city's HMP shall meet required conservation standards, which includes 100 percent conservation of narrow endemic plant populations within the city's HMP proposed preserve system, and at least 80 percent conservation of populations outside of the proposed preserve system (see HMP page D-90, D.6 Measures to Minimize Impact on HMP Species and Mitigation Requirements). Trails potentially impacting narrow endemic species shall be redesigned to meet the required conservation standards of the city's HMP.

Mitigation Measure BIO-3: Focused Wildlife Species Surveys and Mitigation. If the project-specific studies identify potential impacts to suitable habitat for sensitive wildlife species, then, as applicable, the city, private applicant, or other public agency shall perform focused surveys for sensitive wildlife species to determine the presence or absence of sensitive wildlife within potential impact areas. The city, private applicant, or other public agency shall avoid sensitive wildlife species to the greatest extent feasible to successfully implement the Trails Master Plan and demonstrate consistency with the city's HMP requirements. Impacts to habitat occupied by sensitive wildlife species shall be mitigated in accordance with mitigation measure BIO-4.

Trails Master Plan projects with the potential to impact least Bell's vireo, southwestern willow flycatcher, and Harbison's dun skipper butterfly shall implement the required specific measures identified in the city's HMP to meet conservation standards for these species.

Mitigation Measure BIO-4: Compensatory Mitigation. If the project-specific studies identify unavoidable impacts to sensitive natural communities, including sensitive Habitat Group types identified in the city's HMP, then, as applicable, the city, private applicant, or other public agency shall mitigate impacts in accordance with the mitigation ratios and requirements specified in Table 11 (page D-133) of the city's HMP, and for projects within the Coastal Zone, the additional Coastal Zone Standards listed on pages D-114 through D-121 of the city's HMP. These additional standards in the Coastal Zone would include a creation component that achieves the city's no net loss standards. Impacts to Habitat Groups D, E, and F from city projects shall be mitigated by debiting the appropriate acreage from the Lake Calavera Mitigation Bank. Mitigation may be out-of-kind in accordance with allowances for city projects. Impacts to Habitat Groups A, B, and C shall be mitigated in-kind at the ratios stated in Table 11 of the HMP (e.g., creation, restoration, and/or enhancement).

Mitigation Measure BIO-5: Avoidance of Impacts to Nesting Birds and Raptors. To prevent impacts to nesting birds, including raptors, protected under the federal Migratory Bird Treaty Act and California Fish and Game Code, the city shall enforce the following:

Prior to construction activities requiring the removal, pruning, or damage of any trees, shrubs, and man-made structures (e.g., buildings, bridges, etc.) during the general breeding season, that being from January 15 to September 15, as applicable, the city, private applicant, or other public agency shall retain a qualified biologist to perform a pre-construction survey to determine if there are any active nests within the impact areas. The surveys shall take place no more than 7 days prior to the start of construction for a particular project component.

If any active raptor nests are located on or within 500 feet of the areas planned for construction, or if any active passerine (songbird) nests are located on or within 300 feet of the areas planned for construction, as applicable, the city, private applicant, or other public agency shall retain a qualified biologist to flag and demarcate the locations of the nests and monitor construction activities. No construction activities shall occur until it is determined by a qualified biologist that the nests are no longer active, and all nestlings have fledged the nest or until the end of the general breeding season, unless noise attenuation measures are implemented which reduces construction noise below 60 dBA L_{EQ} (1 hour) within 500 feet of the breeding habitat occupied by the listed species. A qualified biologist shall confirm, in writing, that no disturbance to active nests or nesting activities would occur as a result of construction activities. Documentation from a qualified biologist consistent with these requirements shall be submitted to the city for review and approval. A note to this effect shall be placed on the construction plans.

Mitigation Measure BIO-6: Orange Construction Fencing. If it is confirmed through the implementation of mitigation measure BIO-1 that project construction would occur immediately adjacent to sensitive habitat areas and/or habitat potentially suitable for sensitive species, as applicable, the city, private applicant, or other public agency shall retain a qualified biologist to supervise the installation of temporary orange construction fencing, which clearly delineates the edge of the approved limits of grading and clearing, and the edges of environmentally sensitive areas that occur beyond the approved limits. This fencing shall be installed prior to construction, and maintained for the duration of construction activity. Fencing shall be installed in a manner that does not impact habitats to be avoided.

If work occurs beyond the fenced or demarcated limits of impact, all work shall cease until the problem has been remedied and mitigation identified. Temporary orange fencing shall be removed upon completion of construction of the project. Implementation of this measure shall be verified by the city prior to and concurrent with construction.

Mitigation Measure BIO-7: Non-Native Invasive Inspection and Removal. As part of the city's routine maintenance inspections and where trails occur within or immediately adjacent to HMP Preserve areas, the city shall inspect trail edges for sign of non-native invasive plant species listed on the California Invasive Plant Inventory prepared by the California Invasive Plant Council (Cal-IPC 2006). If non-native invasive plant species are confirmed present within these areas, the city shall coordinate with the HMP Preserve Manager to determine the specific actions and responsibilities for treatment and removal. The specific actions and responsibilities will be performed in accordance with long-term management directives and requirements prescribed for the affected HMP Preserve area. Where such directives and requirements have not been prescribed and cannot be provided by the HMP Preserve Manager, they shall include the following, at a minimum:

- a. The least toxic method that effectively removes the weeds shall be used. The preferred method would not use chemicals. This can be accomplished through hand weeding along the linear elements of the trail. Other non-chemical means includes mowing before seeds are set.
- b. If herbicides must be used for non-native invasive removal, at the direction of the Preserve Manager, invasive plants shall be treated with herbicides and left in place or removed and disposed of at an approved off-site location, such as the Waste Management facility at 5960 Reef Circle, Carlsbad, California. This would be performed in accordance with the city's Integrated Pest Management (IPM) plan, updated in November 2017. The updated plan emphasizes the initial use of organic pesticides, limiting the use of chemical pesticides where children and the general public congregate, and when pests cannot be managed by other methods, using USEPA-level pesticides in a targeted manner and only if deemed necessary to protect public safety or economic loss.
- c. Herbicides may only be applied by a licensed pesticide applicator under the supervision of the HMP Preserve Manager or qualified biologist retained by the city.
- d. A qualitative assessment of non-native plant species coverage shall be completed by the HMP Preserve Manager or qualified biologist retained by the city at the end of the year during which the treatment activities took place.
- e. Living, non-native plant species coverage at the location of the treatment area must be demonstrated not to exceed 10 percent of the total treatment area.

- f. If coverage exceeds 10 percent, then at the direction of the HMP Preserve Manager, the treatment activities shall be repeated the following year.

Mitigation Measure BIO-8: Jurisdictional Delineation, Permitting, and Compensatory Mitigation. If the project-specific studies identify potential impacts to waters and wetlands potentially subject to regulatory agency jurisdictions (i.e., U.S. Army Corps of Engineers [USACE], Regional Water Quality Control Board [RWQCB], and California Department of Fish and Wildlife [CDFW] jurisdiction), including riparian habitat and federally-protected wetlands, then, as applicable, the city, private applicant, or other public agency shall perform a formal jurisdictional delineation to determine the presence or absence of jurisdictional waters and wetlands within potential impact areas. The city, private applicant, or other public agency shall avoid jurisdictional waters and wetlands to the greatest extent feasible to successfully implement the Trails Master Plan. If impacts to jurisdictional waters and wetlands cannot be avoided, then the city, private applicant, or other public agency shall notify the appropriate regulatory agencies, secure required permits, and implement compensatory mitigation in coordination with the regulatory agencies and the city's HMP. Compensatory mitigation shall occur at a minimum 1:1 ratio at an on- and/or off-site location through one or a combination of preservation, creation, restoration, and/or enhancement actions approved by the regulatory agencies.

Mitigation Measure CUL-1: Project-level Cultural Resources Record Search & Consultation. Prior to approval of any development for Trails Master Plan projects 1A, 1B, 1C, 1D, 2A, 2C, 5A, 5B, 5C, 6A, 7A (west of I-5), 7D, 7E, 7G, 8A, 8B, 9D, 10A, 10B, 10C, 10D, 12A, 12F, 12H, and 13A, a project-specific cultural resources record search and consultation with the appropriate organizations, California Native American tribes, and individuals shall be conducted by the city as part of the environmental review process.

Prior to approval of any development for Trails Master Plan projects 7B, 7C, 7H, 9A, 9C, 12D, 12E, 12I, and 12J, a project-level cultural resources record search and consultation with the appropriate organizations, California Native American tribes, and individuals shall be conducted as part of the environmental review process by the private applicant or other public agency.

The results of the record search and consultation shall determine whether or not project-level surveys are required to be conducted, pursuant to mitigation measure CUL-2.

Mitigation Measure CUL-2: Project-level Cultural Resources Site Survey. If it is determined through the project-level record search and consultation conducted as part of mitigation measure CUL-1 that cultural resources are known to exist or have the potential to occur within the alignment or immediate vicinity of an individual project within the Trails Master Plan, a cultural resource survey shall be conducted. If significant cultural resources or Tribal Cultural Resources are observed or suspected to occur beneath the surface, an assessment shall be prepared to document the resources per current acceptable professional archaeological standards, and to identify measures to reduce potential impacts. If potential impacts to Tribal Cultural Resources are anticipated, then consultation with the appropriate California Native American tribe shall be conducted to identify measures to reduce potential impacts. Measures to reduce potential impacts to Tribal Cultural Resources may include CUL-3 and CUL-4 below, but are not limited to these measures, and shall be addressed in a pre-excavation agreement with the appropriate California Native American tribe.

Mitigation Measure CUL-3: Construction Monitoring. For those projects where cultural resources were identified through the project-level site survey conducted as part of mitigation measure CUL-2 and monitoring is an appropriate measure to reduce potential impacts, a qualified

archaeologist and Native American monitor shall conduct monitoring of the project site during all grading and other ground-disturbing activities related to construction activities. General archaeological and Native American monitoring of soil disturbances shall be conducted as applicable within each portion of the project identified in the project-level survey as potentially containing sensitive cultural resources. In the event that cultural resources are discovered during project construction, all earth disturbing work within the vicinity of the resource(s) must be temporarily suspended or redirected until a qualified archaeologist and Native American monitor have evaluated the nature and significance of the find, pursuant to mitigation measure CUL-4. After the find has been appropriately addressed, work in the area may resume.

Mitigation Measure CUL-4: Resource Recovery Procedures. Treatment of any cultural resources discovered during site preparation shall comply with the city's Cultural Resource Guidelines. Determination of the significance of the cultural resource(s) and development and implementation of any data recovery program or alternative mitigation measures shall be conducted in consultation with interested Native American tribes. All Native American human remains and associated grave goods shall be returned to their most likely descendent and repatriated in accordance with state and federal regulations. The final disposition of archaeological artifacts that are not considered Tribal Cultural Resources by the appropriate California Native American Tribe shall be offered to an institution staffed by qualified professionals, as may be determined by the City Planner. Artifacts include material recovered from all phases of work, including the initial survey, testing, indexing, data recovery, and monitoring. A cultural resource monitoring report identifying all materials recovered shall be filed with the South Coast Information Center, and a copy submitted to the City Planner upon project completion. Disposition of artifacts that are considered Tribal Cultural Resources shall be governed by the pre-excavation agreement previously executed with the appropriate California Native American tribe.

Mitigation Measure PALEO-1: Prior to approval of any project which may involve ground disturbance in areas which have a moderate to high potential for paleontological resources, a paleontological resource assessment shall be conducted to determine the potential for significant paleontological resources to occur. If significant paleontological resources could be impacted, excavation in the area suspected to contain paleontological resources shall be monitored by a qualified paleontologist. If significant resources are encountered, they shall be recovered and conveyed to an appropriate repository.

EARLIER ANALYSIS USED AND SUPPORTING INFORMATION SOURCES

The following documents were used in the analysis of this project and are on file in the City of Carlsbad Planning Division located at 1635 Faraday Avenue, Carlsbad, California, 92008, or online as indicated.

1. *City of Carlsbad Trails Master Plan*, dated March 2016.
2. *City of Carlsbad Trails Master Plan*, Biological and Cultural Constraints Report, HELIX Environmental Planning, Inc., dated March 2016. *City of Carlsbad General Plan & Climate Action Plan Final Environmental Impact Report*, City of Carlsbad Planning Division, certified September 22, 2015.
3. *City of Carlsbad Local Coastal Program*, City of Carlsbad Planning Division, 1996 as amended.

4. *City of Carlsbad Municipal Code (CMC), Title 21 Zoning*, City of Carlsbad Planning Division, as updated.
5. *City of Carlsbad Best Management Practices Design Manual, Volume 5 of the City of Carlsbad's Engineering Standards*, dated February 16, 2016.
6. *City of Carlsbad Jurisdictional Runoff Management Program (JRMP)*, dated June 2015.
7. *City of Carlsbad Water Quality Improvement Plan*, draft dated September 2015.
8. *City of Carlsbad Integrated Pest Management Plan*. November 2017.
9. *Trail Changes Made Since 2006 Environmental Report*. City of Carlsbad, 2009.
10. *Memorandum of Understanding Between the San Diego Association of Governments and the City of Carlsbad Police Department Regarding the City of Carlsbad, A Municipal Corporation on Behalf of its Open Space Enforcement Program. Agreement No. 5004937*. July 1, 2017.
11. *5-Year Wetland Mitigation & Monitoring Plan for the Lake Calavera Trails Master Plan Boardwalk Improvements Project*, Dudek & Associates, August 2012.
12. *Habitat Management Plan for Natural Communities in the City of Carlsbad (HMP)*, City of Carlsbad Planning Division, Amended November 2004.
13. San Diego Regional Airport Authority/San Diego County Airport Land Use Commission. *McClellan-Palomar Airport Land Use Compatibility Plan (ALUCP)*. Amended March 4, 2010.
14. County of San Diego Countywide Five-Year Review Report, County Integrated Waste Management Plan, dated September 2012. Available at:

http://www.sandiegocounty.gov/content/dam/sdc/dpw/solid_waste_planning_and_recycling/files/ciwmp_sandiegocounty_final.pdf.
15. California Invasive Plant Council (Cal-IPC). *California Invasive Plant Inventory*, dated February 2006. Available at: <http://www.cal-ipc.org/ip/inventory/index.php>.
16. San Diego County Air Pollution Control District. *2008 Eight-hour Ozone Attainment Plan for San Diego County*. December 2016.
17. San Diego County Air Pollution Control District. *2016 Revisions of the Regional Air Quality Strategy for San Diego County*. December 2016.