

CALIFORNIA COASTAL COMMISSION

SAN DIEGO AREA
7575 METROPOLITAN DRIVE, SUITE 103
SAN DIEGO, CA 92108-4402
(619) 767-2370



Th18a

Addendum

May 8, 2017

To: Commissioners and Interested Persons

From: California Coastal Commission
San Diego Staff

Subject: Addendum to **Item Th18a, Notice of Impending Development No. NCC-NOID-0001-17 (Cardiff Coastal Rail Trail)**, for the Commission Meeting of May 11, 2017

The purpose of this addendum is to: 1) add the applicant's May 4, 2017 response letter to the staff report as an exhibit, 2) respond to the applicant's letter and correspondence received from the public and make clarifications to the staff report as necessary, and 3) remove Special Condition #2 and the associated findings since the applicant has provided the required Cooperative Maintenance Agreement. Staff recommends the following changes be made to the above-referenced staff report; deletions shall be marked by a ~~striketrough~~ and additions shall be underlined:

Staff response to comment letters received:

1. In response to SANDAG's May 4th letter, Commission staff would like to emphasize that we agree the proposed improvements to the existing bike and pedestrian facilities on Coast Highway 101 (except for the reduction of vehicle lanes which requires additional study) would improve public access and recreation, consistent with the Coastal Act, and should be pursued through a separate Coastal Development Permit through the City of Encinitas. In fact, City staff confirmed that it has had plans for quite some time to make improvements to bike and pedestrian facilities on Coast Highway 101; however, these improvements were never called the Coastal Rail Trail, and were instead referred to as Coast Highway improvement projects, while the Coastal Rail Trail remained a separate active transportation project at the City. Therefore, we encourage the City to continue to move forward with these improvements on Coast Highway as a separate and complementary project; however, these improvements to Coast Highway 101 should not replace the NCC PWP/TREP requirement to build a new Cardiff Coastal Rail Trail segment within or immediately adjacent to the rail corridor.
2. In SANDAG's May 4, 2017 letter, it states "the proposed western alignment is immediately adjacent to the LOSSAN right-of-way along Coast Highway 101 and,

therefore, consistent with the NCC PWP/TREP.” While one component (improvements to existing northbound bike lane) of SANDAG’s proposed project is located immediately adjacent to the LOSSAN right-of-way, the primary pedestrian and bicycle component (improvements to existing shared-used bike and pedestrian path separated from the road) that could potentially serve as the Coastal Rail Trail is located on the west side of Coast Highway 101, and is separated from the rail right-of-way by a two to four-lane major coastal roadway. Thus, the proposed western alignment is not immediately adjacent to the rail right-of-way. In order to memorialize this, the second paragraph on Page 17 of the staff report shall be modified, as follows:

First, the NCC PWP/TREP requires the Coastal Rail Trail to be located within or immediately adjacent to the LOSSAN rail right-of-way unless there is environmental, safety, or physical constraints. An alternative location for the Coastal Rail Trail may only be considered if one or more of those constraints exist. In those instances where there are environmental, safety, or physical constraints, the NCC PWP/TREP requires the Coastal Rail Trail to be located no further than 150 feet from the LOSSAN right-of-way (Page 4-42 of the NCC PWP/TREP). The Coastal Rail Trail is envisioned as a Class I facility which provides a completely separated right of way for the exclusive use of bicycles and pedestrians. The primary component of SANDAG’s proposed development that could potentially satisfy this requirement is the improvement of the existing shared-use bike and pedestrian path separated from the west side of Coast Highway 101. This path is separated from the rail right-of-way by a two- to four-lane major coast roadway. Therefore, it is not located within or immediately adjacent to the LOSSAN right of way, as required by the NCC PWP/TREP; however, it is located within 150 feet. [...]

3. In SANDAG’s May 4th letter, it states that new biological studies, as well as permits from other agencies, likely would be necessary to move forward with the eastern alignment. It should be noted, however, that the requirement to conduct environmental review and obtain other permits is not an environmental constraint which would allow an alternative alignment outside the rail right-of-way to be considered. Additionally, some environmental review by SANDAG has already been conducted as part of SANDAG’s San Elijo Lagoon Double-Track Project (approved by the Commission in May 2016), which partially overlaps with the eastern alignment project area. In order to memorialize this, a new paragraph shall be added following the second paragraph on Page 19 of the staff report, as follows:

SANDAG has also raised concerns that the eastern alignment may also require additional biological study and could be subject to permitting requirements from other resources agencies. While these components may be necessary, the requirement to conduct environmental review and obtain other permits is not an environmental constraint which would allow an alternative alignment outside the rail right-of-way to be considered.

4. A few members of the public have attached pictures to their correspondence that show wildflowers along the eastern alignment and represent them as native habitat, and many other correspondence received have described the native flower fields located within the eastern alignment. However, a majority of these flowers are

chrysanthemum coronarium (crown daisies) that are not native. According to the California Invasive Plant Council¹, the crown daisy is invasive and easily invades disturbed areas. Seedlings may grow to be up to five ft. tall and may form dense stands that crowd out native vegetation. Dead plant mass can remain in place for many years, preventing native plants from recolonizing. As described in the staff report, although there are some native plant species, much of the eastern alignment is dominated by non-native, invasive plants, such as the crown daisy. The eastern alignment of the Coastal Rail Trail would include the removal of these plants and revegetation with native species.

5. On Page 5 of SANDAG's May 4th letter, it states: "Biological resources are an environmental constraint presented by the eastern alignment which allow CRT siting within 150 feet of the rail right-of-way" and identifies that biological surveys undertaken during the investigation of the east side alignment alternative indicate there are approximately two acres of Coastal Sage Scrub, disturbed Coastal Sage Scrub, and freshwater Marsh habitats within the east side alignment project area that could potentially be impacted. During several meetings with SANDAG staff on the subject project, they have never mentioned that the eastern alignment would impact sensitive biological resources, or provided any maps to identify where these natural habitats are located. In addition, SANDAG did not include any of this information in its May 4th letter in the NOID submittal. In fact, while reviewing the NOID submittal, Commission staff sent the following inquiry on March 27, 2017: "Was an evaluation of the habitat on the east side conducted? If so, were any environmentally sensitive habitat areas identified there?" In its April 10, 2017 response, SANDAG stated: "No formal determination of environmentally sensitive habitat area was conducted." Therefore, it is unclear what biological surveys SANDAG is referencing in its May 4th letter, since none were provided to Commission staff. SANDAG has not identified any impacts to environmentally sensitive habitat areas that could be considered an environmental constraint which would allow an alternative alignment outside the rail corridor to be considered.
6. On Page 6 of its May 4th letter, SANDAG states that the staff report relies on information provided by the City of Encinitas, not information provided by SANDAG, in analyzing parking impacts of the eastern alignment. However, Commission staff relied on both information provided by the City and SANDAG, including the 60% design plans for the eastern alignment. The last paragraph on Page 23 of the staff report shall be modified to clarify this, as follows:

According to the City's review of the eastern alignment and the 60% project design plans provided by SANDAG, the 2,300 linear ft. stretch south of Santa Fe Drive is comprised of approximately 1,780 linear ft. of existing informal parking and approximately 520 linear ft. where no parking is currently available.

¹ http://www.cal-ipc.org/ip/management/plant_profiles/Chrysanthemum_coronarium.php

7. On Page 6 of its May 4th letter, SANDAG states that the loss of existing informal public parking due to physical constraints presented by the eastern alignment is a constraint which allows an alternative alignment to be considered, and that the western alignment would not result in the loss of public parking. In addition, correspondence received from the public misrepresents that the eastern alignment would “remove over 100 free parking spaces.” As discussed in the staff report, the eastern alignment has been designed to minimize the loss of public parking along San Elijo Avenue. The loss of existing informal parking would be limited to approximately 730 linear ft. (approximately 37 parking spaces), or along approximately 11% of the project’s length. The eastern alignment includes the formalization of existing informal parking for approximately 1,250 linear ft., or along approximately 18% of the project’s length. The majority of the project length (71%) would maintain existing parking conditions. Thus, the loss of existing public parking is relatively minor and would be replaced with a new active transportation facility which would improve safety and mobility for a different segment of the public – those traveling by bicycle and foot rather than automobile. Additionally, connectivity to mass transit centers is another important planned aspect of the Coastal Rail Trail that would allow more people to access this area of the coast by alternative means of transportation thereby lessening the demand for automobile parking in the area. In conclusion, the loss of existing informal public parking is not a physical constraint that would allow an alternative alignment outside the rail corridor to be considered. In order to memorialize this, a new paragraph shall be added following the second paragraph on Page 19 of the staff report, as follows:

The loss of some informal parking has also been identified as a physical constraint associated with the eastern alignment. As described in more detail in the Public Access and Recreation section below, the loss of some informal parking spaces is acceptable in this instance and can be found consistent with the NCC PWP/TREP because the loss of existing public parking is relatively minor and would be replaced with a new active transportation facility, which would improve safety and mobility for a different segment of the public – those traveling by bicycle and foot rather than automobile. Additionally, connectivity to mass transit centers is another important planned aspect of the Coastal Rail Trail that would allow more people to access this area of the coast by alternative means of transportation thereby lessening the demand for automobile parking in the area.

8. On Page 6 of its May 4th letter, SANDAG incorrectly states that the at-grade rail crossing near Montgomery “is only in a preliminary planning stage” and does not have an identified location, plans, or funding. However, City staff has confirmed that the crossing is fully funded and the City is currently pursuing two specific alternatives to determine the final project location and that the project is scheduled to be completed in the near term.
9. On Page 7 of its May 4th letter, SANDAG identifies that one of the reasons the existing pedestrian path located along Coast Highway is substandard is that it “only provides a low barrier to separate pedestrian users from Highway 101 traffic” which is a safety concern. However, as described in the subject NOID

- submittal and the staff report, SANDAG proposes to relocate this existing barrier approximately 6-8 feet eastward and maintain it as a barrier between the expanded path and Coast Highway 101. Thus, it is unclear how maintenance of an existing barrier characterized as unsafe by the applicant would improve safety conditions of the western alignment.
10. On Page 9 of its May 4th letter, SANDAG states that the traffic analysis conducted for the western alignment concludes that intersections and roadways, including on Coast Highway 101 and San Elijo Avenue, will continue to operate at acceptable levels of service according to City of Encinitas standards. However, as discussed in the staff report, the proposed reduction of vehicle lanes on Coast Highway 101 would increase travel times along Coast Highway 101, limit the number of vehicles on Coast Highway 101, increase traffic volumes on San Elijo Avenue/Vulcan Avenue, and decrease the level of service at certain intersections, all of which could have negative impacts on public access.
 11. On Page 11 of its May 4th letter, SANDAG states that the western alignment on Coast Highway 101 is covered by the NCC PWP/TREP overlay that is included in the City of Encinitas's certified LCP, and thus, would not require a separate LCP amendment for a reduction in vehicle lanes along the Coast Highway. However, the NCC PWP/TREP expressly did not include or consider changes to Coast Highway 101, including the proposed reduction of vehicle lanes, since many of the North Coast Corridor cities were looking at improvements to Coast Highway 101 independent from the NCC PWP/TREP. The Circulation Element within the City's certified LCP identifies this stretch of Coast Highway 101 as a four-lane, major arterial street; therefore, an LCP amendment would be required for any reduction in lane numbers that would conflict with this description. Even though approximately 45% of Coast Highway 101 within the project area for the western alignment already has one travel lane in each direction, the proposed lane reduction could preclude the future expansion of Coast Highway 101 to four lanes, as identified in the City's certified LCP. Furthermore, the Commission has previously given the City of Encinitas similar direction related to a reduction in vehicle lanes along Coast Highway in the northern portion of the City to accommodate a bike lane. In that instance, the City agreed to process an LCP amendment for that lane reduction as a part of a larger corridor improvement project currently under development for the entire City.
 12. On Page 12 of its May 4th letter, SANDAG states that Commission staff was informed of all changes in project scope in a timely manner. However, neither SANDAG nor the City identified their intent to take this project back to the City Council for a revote on the alignment, and no notice was provided to Commission staff of the March 30, 2016 City Council meeting where the City Council changed its position on the project and directed SANDAG to pursue improvements to Coast Highway 101 instead. Coordination and collaboration with Commission staff should have been conducted prior to this meeting, and Commission staff concerns about inconsistency with the NCC PWP/TREP should have been a part of this public hearing. However, as discussed in the staff report, Commission staff was

not formally informed of this significant change in project scope until two months later.

Additional clarifications to staff report:

13. On Page 6 of the staff report, add SANDAG’s response letter, which is attached to the subject addendum, as a new exhibit, as follows:

Exhibit 12 – SANDAG’s Response to the Staff Report

14. On Pages 9-10 of the staff report, remove Special Condition #2, Final Cooperative Maintenance Agreement, in its entirety as a cooperative maintenance agreement from the City of Encinitas has been received.
15. On Page 13 and 14 of the staff report, modify the following paragraphs to clarify the project history, as follows:

Planning for the Coastal Rail Trail began in 1989 when SANDAG commissioned a study which determined that it was technically feasible to construct a bicycle path along the railway for nearly its full length from Oceanside to San Diego. A second study, the Coastal Rail Trail Project Study Report, was completed in October 2000, and a Memorandum of Understanding was signed by the NCC cities (Oceanside, Carlsbad, Encinitas, Solana Beach, Del Mar, and San Diego) as well as San Diego, NCTD, and the Metropolitan Development Board to jointly coordinate and plan the Coastal Rail Trail. These cities and agencies met on a monthly basis to identify issues and to develop an environmentally appropriate alignment for the pathway, which would be constructible, not cost prohibitive, while maintaining the continued use of the railroad for passenger and freight transportation. The subject segment has been identified along the east side of the rail tracks in all of the iterations for this stretch of the trail, including in the Final Coastal Rail Trail Project Study Report dated October 2000 and the Mitigated Negative Declaration for the project dated April 2001 ([Exhibit 10](#)). This alignment has been thoroughly vetted during the regional planning effort that has taken place over the past 20 years. The City of Encinitas made efforts to implement the identified segment of the Coastal Rail Trail through Cardiff in 2006, however due to community concerns raised at that time (similar to those raised more recently in 2015, see below), the project did not move forward past initial local review.

[...]

With that background, SANDAG spent more than four years (from January 2012 to March 2016) and approximately \$410,000 designing an alignment of this stretch of the Coastal Rail Trail that would be sited within and immediately adjacent to the eastern boundary of the rail corridor and along the west side of San Elijo Avenue in order to be consistent with the NCC PWP/TREP. It is important to note that that “eastern alignment” is different than the project eventually submitted by SANDAG and currently before this Commission (which would be located farther to the west, ~~much of it~~ on the other/western side of Coast Highway 101). During this four year effort, SANDAG coordinated with the City,

Commission staff, residents, and other stakeholders on the design of the eastern alignment. Three open house meetings were held, on November 14, 2013, February 11, 2014, and April 21, 2015, to receive input from the community. SANDAG also presented the project to the City Council at its May 20, 2015 meeting and received the Council's endorsement of the project. Furthermore, SANDAG met with Coastal staff on July 10, 2015 to review the project. At that meeting, Coastal staff provided general feedback, confirmed that the project was consistent with the NCC PWP/TREP, and emphasized support for the project along San Elijo Avenue as a part of this eastern alignment.

Although there was public opposition on some components (i.e., height of fence, informal parking loss) of the project prior to November 2015, there was also significant support for the project, as evidenced by the City Council's endorsement of the project after the three community meetings held in 2013, 2014, and 2015. However, in November 2015, Commission staff became aware of some residents within the community began to voice concerns with the project. Form e-mails were sent to the Encinitas City Council, the SANDAG Board and the Commission by opponents enumerating their objections to the project. These concerns included the following: the project would reduce existing informal parking along San Elijo Avenue (generally used by residents and beachgoers);

16. On Page 22 of the staff report, remove the reference to Special Condition #2, as follows:

In conclusion, the Commission finds that the development, as submitted, would not be consistent with the certified NCC PWP/TREP. However, **Special Condition No. 1** requires that prior to commencement of construction, SANDAG submit final plans that are consistent with the preliminary plans submitted to the Commission in March, 2016 and that site the Coastal Rail Trail within or immediately adjacent to the LOSSAN rail right-of-way along San Elijo Avenue in order to be consistent with the NCC PWP/TREP. ~~In addition, **Special Condition No. 2** requires the submittal of a Final Cooperative Maintenance Agreement with the City of Encinitas for portions of the trail that are within its jurisdiction prior to the commencement of construction.~~ Therefore, the Commission finds that the impending development, as conditioned, is consistent with the certified NCC PWP/TREP.

17. The traffic analysis for the western alignment was conducted on September 7, 2016 for Coast Highway 101 and December 6, 2016 for San Elijo Avenue. On Page 24 of the staff report, modify the third paragraph to correct the date, as follows:

The western alignment would maintain all existing parking along Coast Highway 101; however there would be a reduction in travel lanes from four lanes to two lanes (one in either direction) for an approximately 0.6 mile portion of the alignment north of Chesterfield Drive, as well as a reduction in the speed limit from 45 mph to 35 mph, both of which would slow vehicle traffic and potentially impact the public's ability to access the coast. SANDAG submitted a traffic analysis that evaluated how existing traffic volumes would be affected by the western alignment. The analysis concludes that under existing conditions, roadway segments and intersections are anticipated to continue

operating at acceptable levels of service (LOS D or better) with implementation of the project. However, the traffic analysis was conducted on ~~September 7~~December 6, 2016, a Wednesday during the ~~end of summer~~winter, which likely underestimates traffic experienced on Coast Highway 101 in Cardiff during ~~peak~~ the summer conditions.



401 B Street, Suite 800
 San Diego, CA 92101-4231
 (619) 699-1900
 Fax (619) 699-1905
 www.sandag.org

May 4, 2017

File Number 1223017

Ms. Dayna Bochco, Chair
 California Coastal Commission
 7575 Metropolitan Drive, Suite 103
 San Diego, CA 92108-4421

A copy of this letter has been provided to California Coastal Commission Staff in accordance with the requirements of Public Resources Code, Sections 30319-30324.

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Dear Chair Bochco and Members of the California Coastal Commission:

SUBJECT: Item Th18a, Notice of Impending Development NCC-NOID-0001-17 (Cardiff Coastal Rail Trail)

HEARING DATE: May 11, 2017

Under the proposed Notice of Impending Development (NOID), the San Diego Association of Governments (SANDAG) proposes to construct the Cardiff Coastal Rail Trail (CRT), which constitutes a majority of the 1.7-mile Chesterfield Drive to G Street CRT segment identified in the North Coast Corridor Public Works Plan/Transportation and Resource Enhancement Program (NCC PWP/TREP) as an Initial-Term (2010-2020) project. The entire CRT system is planned as a continuous bike route that will run approximately 44 miles between Oceanside and Santa Fe Depot in Downtown San Diego. The proposed Cardiff CRT (identified as Segment 39C in the SANDAG Regional Bike Plan) will be located between Chesterfield Drive and the undercrossing at Santa Fe Drive. The proposed western alignment of the Cardiff CRT (hereinafter "western" or "west side" alignment) would consist of a new, approximately 1.3-mile-long Class I shared-use path along the west side of Coast Highway 101 along the oceanfront and new continuous buffered bike lanes on both sides of the roadway. The majority of the project funding is through the SANDAG Regional Bike Plan Early Action Program and an additional approximately \$1 million from the Active Transportation Program (ATP) state grant program. Importantly, the ATP grant will be forfeited if the project is not advertised for construction by February 1, 2018.

As described herein, the proposed western alignment is clearly consistent with all requirements of the NCC PWP/TREP. Section 4.4.1 of the NCC PWP/TREP, cited below, provides the standard of review and allows the CRT to be located "immediately adjacent" to the Los Angeles – San Diego – San Luis Obispo Rail Corridor (LOSSAN) right-of-way. The proposed western alignment is immediately adjacent to the LOSSAN right-of-way along Coast Highway 101 and, therefore, consistent with the NCC PWP/TREP. Further, Section 4.4.1 also provides flexibility for CRT siting, either east or west of the LOSSAN right-of-way, where there are environmental, safety, or physical

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in which case, the location is limited to no further than 150 feet from the LOSSAN right-of-way. SANDAG has identified environmental, safety, and physical constraints (drainage and water quality issues, biological resource issues, and public access and recreation issues), which necessitate the proposed western CRT alignment, located within 150 feet of the LOSSAN right-of-way.

SANDAG is requesting that the California Coastal Commission (CCC) modify Special Condition One of the staff report and recommendation to provide that SANDAG submit final plans for the proposed *western CRT alignment*, instead of require SANDAG to submit final plans for the eastern CRT alignment along San Elijo Avenue (“eastern” or “east side” alignment). Special Condition One would require SANDAG to completely relocate the CRT to the eastern side of the railroad tracks within the right-of-way of the North County Transit District (NCTD) and the City of Encinitas, which is not desired by the city, many members of the community, and would require significantly more environmental analysis, permitting from other resource agencies, cost, and time, and presents environmental, physical, and safety constraints. As explained in detail herein, the eastern alignment recommended by staff is marked by numerous environmental review and regulatory considerations, which would cause significant delay and the likely loss of \$1 million in grant funding. The proposed western alignment for the CRT is consistent with the NCC PWP/TREP standard of review for siting and development, far superior in terms of benefits to public access and coastal resources, and implementable now, using the \$1 million in grant funds that otherwise will be lost if the project is not advertised for construction by February 1, 2018. The proposed western CRT alignment will provide the intended new active transportation benefits and direct access to coastal resources and recreational facilities contemplated by the CRT along this portion of the north-south bicycle and pedestrian route.

The Project is Consistent with the NCC PWP/TREP:

- 1. The NCC PWP/TREP does not mandate an eastern CRT alignment and the proposed western alignment is consistent with PWP siting requirements allowing the CRT to be immediately adjacent to the LOSSAN right-of-way and sited within 150 feet of the LOSSAN right-of-way in areas where there are environmental, safety, and physical constraints.**

The NCC PWP/TREP generally describes the Cardiff CRT within Section 4.4.1 as “Chesterfield Drive to G Street (Encinitas): Construct approximately 1.7 miles of dedicated bicycle facility. Partially overlaps with LOSSAN San Elijo Lagoon Double Track project.” The NCC PWP/TREP does not provide project-specific siting requirements for the Cardiff CRT segment or any other CRT segment, rather it provides for flexibility in determining the location on a site-specific basis. The staff report omits a detailed discussion of the recent NCC PWP/TREP Amendment (Amendment No. PWP-6-NCC-0001-1), approved by the CCC at the March 2016 hearing, to specifically add a provision allowing flexibility in siting the CRT.

The Staff Report errs in its argument that the NCC PWP/TREP permits only an eastern alignment of the CRT. It omits any reference to the PWP amendment which expressly provides flexibility in siting the CRT and authorizes a western alignment, as SANDAG requests here. As amended in March 2016, Section 4.4.1 of the NCC PWP/TREP provides that:

*It is the intent for Coastal Rail Trail projects included for permitting in the PWP/TREP to be located within or immediately adjacent to the LOSSAN right-of-way - except in areas where there are environmental, safety, or physical constraints. **In those instances where there***

are constraints, the Coastal Rail Trail shall not be located any further than 150 feet from the LOSSAN right-of-way. (emphasis added)

In approving the amended NCC PWP/TREP language and explaining the flexibility provided, the CCC found that:

*The proposed language would provide future flexibility for project specific design while still preserving the intent of the regional community enhancement feature - creation of a continuous north-south bicycle and pedestrian trail along the rail corridor that will provide safe access to and along the coast. **The amendment would not result in any significant changes to the alignment of the CRT; however, it would give SANDAG the flexibility to consider the alignments both east and west of the LOSSAN right-of-way in areas where the final design has yet to be completed,** such as the community of Leucadia segment in the City of Encinitas. If the future CRT and regional planning identifies that it is appropriate to locate the CRT further than 150 feet from the right-of-way, it would require a NCC PWP/TREP amendment for that segment (2/26/16 CCC staff report, p. 15) (emphasis added).*

The standard outlined in Section 4.4.1 permits the western CRT alignment proposed “immediately adjacent” to the LOSSAN right-of-way and also provides flexibility for CRT siting where there are environmental, safety, or physical constraints, in which case, the location is limited to no further than 150 feet from the LOSSAN right-of-way. SANDAG has determined that the following environmental, safety, and physical constraints would necessitate the proposed western CRT alignment located within 150 feet of the LOSSAN right-of-way: water quality, drainage, and landform alteration, biological resources, and public access and recreation.

a. Water quality, drainage, and landform alteration are environmental and physical constraints of the eastern alignment which allow CRT siting within 150 ft. of the right-of-way.

The eastern alignment presents several technical problems due to siting constraints. First, it would necessitate extensive site modifications and landform alteration to address drainage and water quality issues. Specifically, the east side alignment would require the improvement of existing drainage facilities and, most likely, the construction of new drainage facilities to meet NCTD requirements, in order to promote positive drainage conditions and for general safety concerns. The east side alignment would require 2,000 cubic yards of cut and 1,500 cubic yards of fill, resulting in significant landform alteration. The drainage improvements needed to accommodate the east side CRT alignment would include the reconstruction of two large storm drain inlets near Cornish Drive, installation of under drain storm drain system for pervious paver areas, and provision of low-flow bypass systems to safely convey runoff across the proposed pathway. Additionally, in order to prevent future erosion from run-off from an east side alignment, rip rap and drainage structures would need to be installed at Verdi Avenue and Montgomery Avenue to decrease run-off velocities and to convey flows nuisance flow from small storm events underneath the bike path while larger storms will flow over the bike path. This would significantly alter natural drainage patterns in this area. For the east side project design, the drainage system improvements are estimated to cost approximately \$1.23 million, which is 27 percent of the estimated total project cost. However, final total costs could greatly exceed this estimate since NCTD has yet to weigh in

on the specifics of the drainage facilities that they will require to facilitate the east side alignment project.

The staff report cites this information provided by SANDAG, but responds simply that "SANDAG has already demonstrated that the eastern alignment is feasible during the planning process that occurred from 2012 to 2016, resulting in 60 percent design" (April 26, 2017, CCC staff report, page 18.). However, it is erroneous for staff report to state that 60 percent design plans demonstrate project feasibility. The plans are not yet finalized and 60 percent does not correlate with the level of environmental review required. SANDAG had not performed constructability review, nor has anyone performed outside constructability review. Further, SANDAG has not yet had an opportunity to account for the extent or cost of additional project features, such as additional stormwater and drainage control, handling and Best Management Practice (BMP) designs and structures that were identified as necessary. Additionally, since a portion of the eastern CRT alignment project area appears to be within the City of Encinitas Floodplain Overlay, a hydrological analysis may identify that additional flood control improvements may be necessary to facilitate the east side CRT alignment project.

Further, the Coastal Act provides the following definition for feasible: "'Feasible' means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors," (Coastal Act Section 30108). Thus, under the Coastal Act, time, cost, and environmental factors are considerations in determining feasibility, and, as to the east side alignment, SANDAG has not yet completed a final full accounting of what cost, time, and environmental review the additional project work for drainage improvements would require. Moreover, feasibility of the project is not a requirement in the standard of review outlined in NCC PWP/TREP Section 4.4.1 (cited above on page 2).

Still further, the staff report indicates that the project was reviewed by the CCC's water quality specialist who believes that there may be alternatives that would control stormwater runoff that would require less extensive BMPs, as well as money (April 26, 2017, CCC staff report, page 18). The CCC staff has not substantiated the assertion that there may be alternatives that would require less extensive BMPs and no further information was provided. Furthermore, the full extent of new and modified drainage facilities cannot yet be determined until design has progressed and until the NCTD, the LOSSAN right-of-way property owner in the project area, has indicated what additional drainage facility improvements will be required as part of their project review conditions.

Therefore, drainage and water quality are environmental and physical constraints under Section 4.4.1 with an east side alignment that argue instead for the western CRT alignment, which does not present those issues. The proposed west side alignment does not have these drainage or water quality concerns because improvements will be located within the existing developed transportation corridor of Coast Highway 101. No additional impervious areas will be added to Coast Highway 101 as part of the proposed project and the paved CRT segment will direct stormwater runoff to adjacent vegetated areas or be hydraulically disconnected from the roadway.

b. Biological resources are an environmental constraint presented by the eastern alignment which allow CRT siting within 150 feet of the rail right-of-way.

Additionally, the east side alignment raises issues regarding potential permanent impacts to sensitive and native biological resources, including areas of coastal sage scrub, disturbed coastal sage scrub, and freshwater marsh. Biological surveys undertaken during the investigation of the east side alignment alternative indicate that there almost two acres of Coastal Sage Scrub, disturbed Coastal Sage Scrub, and freshwater Marsh habitats within the east side alignment project area that could potentially be impacted if that project were to be implemented. Furthermore, preliminary biological surveys indicate that there are a number of special-status plant species with the potential to occur within the east side alignment project area. Seasonal surveys would be required to adequately detect the presence of special status plant species and evaluate potential biological impacts that could result if the east side CRT alignment was implemented.

The staff report states that *“Although there are some relatively large patches of existing vegetation within the eastern alignment, including native plant species, they are located between the railroad tracks to the west and San Elijo Avenue to the east, with no buffer from adjacent development. The CCC’s staff ecologist, Dr. Laurie Koteen, has reviewed the native plant survey submitted by opponents of the eastern alignment, as well as photos from site visits, and determined that the vegetation that would be displaced by the project is primarily a linear, fragmented feature that includes mostly non-native plants, such as ice plant, and is not Environmentally Sensitive Habitat Areas,”* (April 26, 2017, CCC staff report, page 33). This native plant survey report was prepared by a landscape architect, not a certified biologist, and did not present evidence that seasonal surveys were conducted consistent with the normal CCC seasonal survey timing requirements to detect sensitive plant and animal species. Furthermore, although this report was not prepared by a certified biologist, it did contain reference to and delineation of “Semi-Riparian Habitat (possible vernal pool)” and “coastal wetland” habitat areas. The CCC staff report is incomplete and did not address the presence of any wetland, riparian, or vernal pool habitat areas within the east side project alignment, nor have any seasonal surveys been submitted to CCC staff by a professional biologist that would confirm or deny the presence of such habitat features.

While the presence of vernal pools or other sensitive biological resources cannot be confirmed within the east side alignment project area due to a lack of biological information, surveys, and data, it appears that waters of the United States are present within the east side alignment project area. As such, SANDAG would need to obtain an Army Corps of Engineers 404 permit, a Water Quality Control Board 401 permit, and a streambed alteration agreement from California Department of Fish and Wildlife in order for the east side alignment alternative to move forward. Whether the existing freshwater marsh habitat (designated as PEM1cX by the U.S. Fish and Wildlife Service’s National Wetland Inventory) would be impacted by the east side alignment is unknown, however, the City of Encinitas and SANDAG anticipate that an Environmental Impact Report would be required for the east side alignment alternative, partially due to the presence of biological resources and wetland features within the east side project area. As part of any National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) review, new biological studies would likely be necessary.

Conversely, the proposed west side alignment will not have any biological resource impacts, as the project footprint will include existing paved or previously disturbed areas, and has already obtained a categorical exemption to satisfy the requirements of CEQA.

c. Public access and recreation impacts (new fencing and removal of parking) caused by the eastern alignment due to physical and safety constraints allow CRT siting within 150 feet of the rail right-of-way.

Due to physical siting constraints, the 60 percent design plans show how the eastern alignment would need to be sited in an area heavily used by the public for parking to access popular coastal beaches in the area. The eastern alignment would eliminate a portion of existing informal public parking at the eastern edge of the LOSSAN right-of-way along San Elijo Avenue and Vulcan Avenue and would result in the loss of informal trails within the LOSSAN right-of-way currently used by the community. As noted in the staff report, “[a]ccording to the City’s review of the eastern alignment, the 2,300 linear feet stretch south of Santa Fe Drive is comprised of approximately 1,780 linear feet of existing informal parking and approximately 520 linear feet where no parking is currently available” and “overall, there would be a loss of approximately 730 linear feet of parking,” (April 26, 2017, CCC staff report, page 23). The staff report relied on the parking loss information provided by the City of Encinitas, not information provided by SANDAG, and estimated that approximately 37 parallel parking spaces would be removed (based on the standard length of a parallel parking spot of approximately 20 linear feet) (April 26, 2017, CCC staff report, page 23). This loss of public access parking due to physical constraints presented by the eastern alignment is a constraint which allows the western CRT alignment, which would result in no loss of public parking.

Further, the eastern CRT alignment would require the installation of a fence for NCTD safety requirements that would preclude the public from crossing the rail tracks to access the beach. The staff report notes that “whether SANDAG constructs the eastern alignment or the western alignment, it is NCTD’s long-term goal to fence the rail right-of-way to avoid collisions,” (April 26, 2017, CCC staff report, page 25). Although the staff report describes a planned at-grade pedestrian rail crossing at Montgomery Avenue and San Elijo Avenue, the staff report underestimates the significant public access impacts that fencing the rail corridor would have on informal historic coastal access enjoyed by the public along this stretch of coastline. Further, the staff report omitted information regarding the stage of planning for the Montgomery at-grade crossing, as that crossing is only in a preliminary planning stage with no identified location, no plans, no funding, and no agency approvals. Therefore, due to constraints of the eastern alignment resulting in public access impacts, the western alignment is superior because it would allow direct public access to the coast and ocean and would not result in any permanent loss of parking.

2. The CRT alignment is not required to be constructed in the exact alignment as depicted on figures in the NCC PWP/TREP because Section 4.4.1 allows siting flexibility.

The staff report asserts that the proposed western alignment is not consistent with the NCC PWP/TREP because “it is not sited immediately adjacent to the rail right-of-way along the rail corridor’s eastern boundary, as depicted in figures in the NCC PWP/TREP, including Figure 4-2C, Figure 4-2D, Figure 5.3-1C, and Figure 6A-1A,” (April 26, 2017, CCC staff report, page 19). However, the CRT

alignment depicted in the NCC PWP/TREP figures is not intended for project-specific siting at that scale and, in fact, the western alignment is located “immediately adjacent” to the LOSSAN right-of-way along Coast Highway 101 consistent with NCC PWP/TREP Section 4.4.1. Additionally, as briefly mentioned but dismissed in the staff report, the recent March 2016 NCC PWP/TREP PWP amendment specifically provided language allowing flexibility for siting where there are environmental, safety, or physical constraints, which is the case here, as demonstrated herein. As described herein, in approving the amended NCC PWP/TREP language and explaining the flexibility provided, the CCC found that “[t]he amendment would not result in any significant changes to the alignment of the CRT; however, it would give SANDAG the flexibility to consider the alignments both east and west of the LOSSAN right-of-way in areas where the final design has yet to be completed...” (February 26, 2016, CCC staff report, page 15). Therefore, the CRT alignment is not required to be constructed in the exact alignment as depicted on the NCC PWP/TREP figures as the staff report asserts.

3. The proposed western alignment proposes new facilities, not merely improvements to existing facilities as characterized in staff report.

The staff report incorrectly characterizes the project description as improvements to existing facilities, rather than construction of new facilities. The staff report asserts that the western alignment “proposes improvements to existing facilities rather than construction of a new CRT, which does not provide adequate mitigation,” (April 26, 2017, staff report, page 19). In fact, currently there is not a continuous, separated facility for bikes and pedestrians along Coast Highway 101. The proposed western CRT alignment would create a new active transportation facility that would connect missing CRT links where no dedicated bike lanes currently exist and would meet the NCC PWP/TREP vision (NCC PWP/TREP Section 5.3.1.3) of creating a new continuous bicycle route segment with direct access to coastal resources.

The existing substandard pedestrian pathway segment, asphalt sidewalk, and bike lane segments along Coast Highway 101 from Chesterfield Drive to Santa Fe Drive are not continuous, separated facilities that meet the vision of the CRT in the PWP/TREP. Dedicated bike lanes exist along only half of this route, forcing bicyclists onto the active roadway and creating traffic congestion and safety concerns. The proposed 1.3-mile-long Class I shared use path would include separated, newly striped and buffered bike lanes on the roadway, providing for regional and interregional users as required by the NCC PWP/TREP. SANDAG wants to highlight the fact that there is no existing southbound bike lane on Coast Highway 101 for approximately 50 percent (3,400 linear feet) of the project area. Other substandard existing transportation conditions include an unsafe pedestrian only separated path along a portion of the west side of Highway 101, non-continuous bike lanes along NB and SB travel lanes, and inadequate separation of the pedestrian pathway segment from Highway 101 roadway. Specifically, only approximately 32 percent of the corridor (2,200 feet) is designated as a pedestrian only pathway, the rest of the corridor provides what is essentially an asphalt sidewalk adjacent to parallel parking along Highway 101, with no restrictions to the type of user. Page 21 of the April 26, 2017, staff report states that “recreational bicyclists” use the existing pedestrian path along Highway 101. In fact, bikes are not allowed on a significant stretch of this path and frequently use southbound lanes of Highway 101 instead of the asphalt sidewalk to the south of the campground entrance, since this stretch of sidewalk is usually frequented by beachgoers trying to access the Cardiff Reef Beach area to the south of the project site. Furthermore, the segment of the existing corridor that contains the pedestrian only pathway does not provide any barrier or fencing between the pathway and the ocean cliff edge and only provides a low barrier to separate pedestrian users from Highway 101 traffic

that currently can go up to 45 miles per hour along this stretch of roadway, both of which are circumstances that create a safety concern among many users.

The proposed project would build a new multi-use active transportation facility where none currently exists. The proposed western CRT alignment would provide 1.3 miles of a new Class I facility for shared use for both people on bikes and people walking, where currently only pedestrians are permitted. The proposed west side alignment would include a new up to 16-foot-wide Class I multi-use path fronting the ocean and would add more than 3,400 feet of missing, southbound buffered bike lane. The proposed western alignment would also provide a new continuous bike and pedestrian link between the popular coastal beach access points at Cardiff State Park Campgrounds and Day Use Area and Swami's Beach Park. Moreover, the proposed bike and pedestrian coastal trail amenity on the west side would provide a new continuous, non-automotive connection between the downtown areas of Encinitas and Cardiff. In conclusion, this proposed CRT segment would follow the guidelines of the PWP/TREP and would constitute a new facility: Class I separated shared use path for entire 1.3 miles; Class II bike lanes for entire 1.3 miles, providing a new active transportation corridor for regional and interregional users and serving as required mitigation for I-5 improvements as fully outlined in the NCC PWP/TREP.

In summary, please compare the existing conditions with the proposed conditions:

EXISTING CONDITIONS	PROPOSED CONDITIONS
<ul style="list-style-type: none"> • 32 percent of the corridor provides a substandard pedestrian-only pathway (no bikes allowed) 	<ul style="list-style-type: none"> • 100 percent of the corridor will provide a safe multi-use path for both people that walk and people that bike
<ul style="list-style-type: none"> • Only 50 percent of the southbound corridor provides a Class II bike lane 	<ul style="list-style-type: none"> • 100 percent of the corridor will have northbound and southbound Class II bike lanes
<ul style="list-style-type: none"> • 45 percent of the corridor is one travel lane in each direction 	<ul style="list-style-type: none"> • 100 percent of the corridor will have one travel lane in each direction, creating a safer environment for a mix of non-automotive users

4. The reduction in vehicle lanes along a portion of the project site would not negatively impact traffic circulation and overall will enhance public access and recreation along the corridor.

In order to accommodate the proposed western alignment, for approximately 2,100 feet, the project includes a reduction in the number of lanes from two lanes in each direction to a single lane in each direction. Approximately 3,300 feet of Coast Highway 101 in the project area is already one lane in each direction. The section of Coast Highway 101 that is four-lanes (south of the San Elijo Campground northern boundary to Chesterfield Drive) under existing conditions is proposed to be reduced to two-lanes as part of the proposed western CRT alignment. However, the existing four lanes are maintained through the intersection of Coast Highway 101/Chesterfield Drive. Along Coast Highway 101, one through lane in each direction will be removed through the intersection at the Day Use Campground parking lot and at the Campground Main Entrance and existing right turn and left turn lanes will be maintained. For all other intersections, the existing intersection geometry will remain unchanged with the project. The proposed project will also reduce the posted speed limit

from 45 to 35 miles per hour to improve safety for people who walk, bike, and drive and support comfortable public use of the proposed multimodal transportation facility. The Traffic Operations and Analysis Report, prepared by STC Traffic, Inc. in January 2017, demonstrates that a change from two lanes to one lane with the speed limit reduction will not result in any adverse vehicle traffic impacts in the project area and the level of service will continue operating at acceptable levels according to City of Encinitas standards.

The staff report asserts that the reduction of vehicle lanes on Coast Highway 101 could affect public access and asserts that the traffic analysis “likely underestimates traffic experienced on Coast Highway 101 in Cardiff during the summer” and the “assumptions that were used to project traffic conditions in the Year 2035 are not appropriate and also likely underestimate future traffic conditions.” (April 26, 2017, staff report, pages 21 and 24-25). A full description and explanation of the Traffic Operations Analysis Report (Traffic Report) is provided in consistency analysis prepared for the project (Attachment 1). In summary, the Traffic Report evaluated the vehicle traffic impacts of the proposed 1.3-mile CRT project through the year 2035, including an analysis of intersection operations, roadway segments operations, and travel time. The report observed traffic volumes along Coast Highway 101 in the project area during three time periods (while local schools were in session): a weekday (Wednesday) during the morning and evening peak periods; a Friday evening; and a Saturday during the mid-day. The highest directional volume occurred during the Wednesday morning peak period with 1,123 vehicles per hour (vph) on southbound Coast Highway 101 at Chesterfield Drive. Northbound and southbound volumes were lower than 1,123 vph on Friday evening and Saturday mid-day. Therefore, the project’s traffic operations analysis report uses the observed weekday volumes. In addition, the staff report also incorrectly asserts that, “the traffic analysis was conducted on December 6, 2016, a Wednesday during the winter, which likely underestimates traffic experienced on Coast Highway 101 in Cardiff during the summer.” (April 26, 2017, staff report, pg. 24). However, as documented in the traffic report prepared by SANDAG (see page 8), traffic volumes for Coast Highway 101 were collected on Wednesday, September 7, 2016, not in December. For the study area the Traffic Report found that the proposed project would not significantly increase travel time on Coast Highway 101 during peak AM or PM periods (i.e., it would take an additional approximately 10 to 20 seconds for drivers to travel the approximately 1.3 miles during peak periods), would allow roadway segments to continue operating at acceptable levels of service threshold of LOS D or better, and would allow intersections to continue operating at acceptable levels of service LOS D or better during peak hours. As fully evaluated in the consistency analysis provided for public access and recreation (Attachment 1), the amount of traffic in the summer was not underestimated and is fully accounted for.

The staff report also asserts that, “with implementation of the project, the public would choose alternative means to access this area of the coast, which would mean the project would indirectly impact other important coastal access roads—especially San Elijo Avenue.” (April 26, 2017, staff report, pg. 25). However, SANDAG’s traffic analysis fully recognizes that implementation of the west side alignment may shift traffic from Coast Highway 101 to other roadways in the project area, including San Elijo Avenue (Traffic Report, page 13); the traffic report quantifies the amount of traffic that would be shifted to San Elijo Avenue (Traffic Report, page 13), provides evidence and explanation to support these assumptions, (Traffic Report, page 13) and analyzes traffic operations along affected segments of San Elijo Avenue to determine how the roadway would be affected by this shift in traffic away from Coast Highway 101. In conclusion, the traffic analysis demonstrates that the proposed west side alignment would not cause any segment of San Elijo Avenue or intersections with San Elijo Avenue to operate at unacceptable levels of service as determined by City of Encinitas

Standards (Traffic Report, Table 4-1, page 24; Table 4-2, page 25; Table 5-1, page 31; Table 5-2, page 32).

In addition to the peak hour volumes for San Elijo Avenue collected in December 2016, SANDAG has 24-hour traffic count data for San Elijo Avenue that was collected in August 2015. The 24-hour count sheets provide the volume in 15 minute, 1 hour and 24 hour intervals for data collected over a 1-week period along San Elijo Avenue north of Liverpool (immediately south of Birmingham). To determine if there were variations in traffic between winter and summer (i.e., December and August), SANDAG's traffic engineering consultant compared the 1 hour volume on the ADT count sheet for 8 a.m. and 4 p.m., which coincide with the peak hour volumes collected at the intersection of San Elijo Avenue/Birmingham in December 2016 and evaluated in the project's traffic analysis (the south leg of the San Elijo Avenue/Birmingham is essentially the same San Elijo Avenue north of Liverpool). The volume on the south leg of the Birmingham intersection (2,097 trips in December 2016) were found to be nearly the same as the peak hour volumes collected as part of the ADT counts (2,004 trips in August 2015). The variations in volume fall within an acceptable 10 percent variation in day to day, year to year traffic patterns, making them nearly negligible. Therefore, we do not have reason to believe the counts used in the analysis under represent "summer" traffic conditions along the San Elijo Avenue.

Further, the assumptions that were used to project traffic conditions in 2035 are appropriate and have been accepted by the CCC in the past. In February 2013, CCC approved the construction of the Carlsbad Rail Trail (CDP No. 6-12-087). The CCC-approved Carlsbad Rail Trail project proposed to reduce travel lanes to a single vehicular lane in each direction, thereby eliminating one lane of travel across Buena Vista lagoon. This reduction allowed for the construction of the Carlsbad Rail Trail section, Class II bike lanes and a sidewalk without expanding the footprint of the roadway beyond the limits of the existing disturbed right-of-way. A traffic analysis was conducted similar to the one conducted for the west side alignment, identifying that reduction in travel lanes would result in no change in level of service for the identified roadway segments under existing or forecasted year 2035 travel demands. The CCC found that when compared to the benefits the proposed project provides overall to public access for a range of multimodal users, the slight reduction in level of service for vehicles through the intersection is acceptable and would not result in a conflict with the public access policies of the Coastal Act. SANDAG respectfully submits that its traffic analysis for the proposed western alignment also supports a finding of no conflict with the public access policies of the Coastal Act.

Overall, the proposed western alignment of the CRT provides inherent public access and recreation benefits for the region and local community which satisfy Coastal Act policies and NCC PWP/TREP design and development strategies and implementation measures. The proposed CRT alignment will provide visitor interest through a new, direct and continuous, bike and pedestrian link between the popular coastal beach access points at Cardiff State Park Campgrounds and Day Use Area and Swami's Beach Park. The project will also provide a new continuous, non-automotive connection between the coastal communities of downtown Encinitas and Cardiff. Additionally, the project will be accessible to people who walk and bike on the east side of the LOSSAN right-of-way. At the northern end, the project terminates at the Santa Fe Undercrossing, which provides a bike and pedestrian crossing underneath the railroad tracks at Santa Fe Drive. At the southern end, the project terminates at Chesterfield Drive. As part of the double tracking project currently under construction, Chesterfield Drive will be improved with new bicycle and pedestrian crossings from Coast Highway 101 across the

railroad tracks to San Elijo Avenue. Thus the proposed CRT segment will be interconnected to other public access improvements and circulation links.

Further, although the City's LCP is not the standard of review, the staff report suggests that the City's LCP would need to be amended because the reduction in vehicle lanes is inconsistent with the City's Circulation Element of the LCP (April 26, 2017, CCC staff report, page 22). However, the western alignment, which is immediately adjacent to the LOSSAN right-of-way, and within 150 feet of the LOSSAN right-of-way, is clearly allowable under the NCC PWP/TREP (as amended in March 2016) and, therefore, also covered as part of the City of Encinitas LCP Overlay for NCC PWP/TREP improvements (approved per the May 2014 Land Use Plan Amendment) consistent with LCP Overlay Sections 2.5 and 3.10. These overlay provisions do not require an amendment to the City's LCP each time the NCC PWP/TREP is amended because the overlay was specifically designed to incorporate amendments to NCC PWP/TREP provisions. In other words, by the terms of the LCP amendments certified in conjunction with the NCC PWP/TREP, an amendment to the NCC PWP/TREP "automatically" amends the City's LCP. Moreover, although the City's adopted Circulation Element identifies Coast Highway 101 as a four-lane, major arterial street, the existing Coast Highway 101 does not currently provide four lanes along about 3,300 feet of the 1.3-mile project reach.

Staff Report Project History Clarifications

1. The eastern alignment has not yet been not fully vetted, as asserted in the staff report.

The staff report describes the history of the project since original planning for the bicycle path from Oceanside to San Diego began in 1989 and states that the subject segment has been identified along the east side of the rail tracks in all iterations for this stretch of trail including the Final Coastal Rail Trail Project Study Report, dated October 2000 and the Mitigated Negative Declaration (MND), dated April 2001. The staff report further asserts that "this [eastern] alignment has been thoroughly vetted during the regional planning effort that has taken place over the past 20 years," (April 26, 2017, staff report, pgs. 2 and 13). However, the assertion that the eastern alignment has been "fully vetted" is not accurate and mischaracterizes the level of review that was undertaken for this CRT segment during those preliminary assessments. For example, project description in the 2001 MND states that the project "would not impact the existing unimproved parking along San Elijo Avenue," (Exhibit 10 to the CC staff report). The design work performed by SANDAG demonstrated that this parking area would in fact be impacted by the east side alignment. Additionally, the Final Coastal Rail Trail Project Study Report, dated October 2000 is only a conceptual planning document with no site-specific impact assessments. No detailed project-level analyses were conducted during those preliminary evaluations for the CRT and the eastern alignment is not environmentally cleared under CEQA or NEPA. The eastern alignment also does not possess the required environmental permit approvals from agencies that include but are not limited to the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife. It is also possible that the eastern alignment would require an Environmental Impact Report under CEQA. Therefore, the eastern alignment is not fully vetted as the staff report asserts. Moreover, environmental review and permits would add a significant amount of time to the project schedule. The bottom line is that delays associated with the eastern alignment would make it impossible for SANDAG to comply with the funding deadline, thus losing the \$1 million grant funding.

2. SANDAG expenditures to-date included analyses of both the eastern alignment and western alignment alternatives

The staff report states that "SANDAG spent more than four years (from January 2012 to March 2016) and approximately \$410,000 designing an alignment of this stretch of the Coastal Rail Trail that would be sited within and immediately adjacent to the eastern boundary of the rail corridor and it along the west side of San Elijo Avenue in order to be consistent with the NCC PWP/TREP." This statement is not completely accurate, as some of the money was also spent to evaluate the western alignment alternative. The July 2015 staff meeting with SANDAG and CCC staff included a discussion of both alignments and it appeared that CCC staff were positive about the western alignment at that meeting.

SANDAG has been actively working with the City of Encinitas to analyze alternative alignments for the Cardiff CRT since 2013, including both an alignment partially within the railroad corridor on the east side of the tracks and within portions of San Elijo Avenue/Vulcan Avenue (eastern alignment) and a west side alignment within the City's right-of-way on Coast Highway 101 (western alignment). Although the Encinitas City Council originally directed SANDAG to pursue design efforts for the east side alignment alternative in May 2015, SANDAG is now pursuing the western alignment along Coast Highway 101 due to substantial input from the public and the City Council's action of March 30, 2016.

3. Although no CDP is necessary from the City because the CRT is a component of the NCC PWP/TREP, the City's endorsement of the project is nevertheless important.

The staff report states that "[w]hile coordination with the City is required by the NCC PWP/TREP, it is important to note that projects identified therein have already been approved by the CCC as part of the approval of the NCC PWP/TREP and are not required to receive discretionary approval from the City," (CCC staff report, pages 3 and 15). This statement is inaccurate because discretionary approvals are still necessary for the project, such as approval of the portions of the CRT that must be located within the City right-of-way. Furthermore, SANDAG's mission is to build consensus among our 18 cities and the County, including the City of Encinitas. The City's endorsement of the project is essential for a successful outcome in order to ensure a long-term partnership moving forward without forcing member agencies and local communities to accept projects that they do not want implemented.

4. SANDAG informed CCC staff of all changes in project scope in a timely manner.

Due to the City Council's action of March 30, 2016, endorsing the western alignment during a public meeting of the City Council, and due to substantial input from the community, SANDAG chose to pursue the western alignment of the CRT. The staff report states that "[n]either SANDAG nor City communicated this change in project scope to CCC staff until after planning on west alignment had begun and did not involve CCC staff in any of those previous discussions with the City Council," (April 26, 2017, staff report, pgs. 3 and 15). This is incorrect, as SANDAG has worked diligently to keep CCC staff informed of all changes to the project. During the approximately two month period after the City Council's March 30, 2016 action, SANDAG staff put the project on hold pending further direction from elected officials on the SANDAG Transportation Committee, who agreed to hold any additional work until SANDAG and the City signed an MOU to move forward, which was signed on August 24, 2016,

after four publicly noticed meetings either at SANDAG or the City. SANDAG staff discussed the March 30th action in general and the need to meet with Coastal staff on a field visit for another bikeway project on April 25, 2016. Regardless, planning for the western alignment was part of the initial project level planning/conceptual engineering early in the project timeline that CCC staff was aware of and briefed on at the time by SANDAG.

In conclusion, the proposed western CRT alignment is the right project, it will be an important asset to the community for coastal access, and is consistent with all required provisions of the NCC PWP/TREP. The timeline for approval has special significance given the time limitations for about \$1 million in project funding. We appreciate the time and consideration of CCC staff and Commissioners. We look forward to the hearing on this item and respectfully request that the CCC modify Special Condition One to approve the proposed western CRT alignment, instead of the staff recommendation of the eastern CRT alignment.

Sincerely,



CHARLES "MUGGS" STOLL
Director of Land Use and Transportation Planning

MST/LCU/CCAR/abar

By email

cc: Gabriel Buhr, CCC, gabriel.buhr@coastal.ca.gov
Kanani Brown, CCC, kanani.brown@coastal.ca.gov

Attachment: NCC PWP/TREP Consistency Analysis for Proposed Western Alignment (also submitted to CCC staff as part of the NOID application)

Policy Consistency Analysis - 5.1 Energy Conservation and Emissions Reduction

The Coastal Act requires new development to minimize energy consumption and vehicle miles traveled and requires new development to be consistent with air quality pollution limitations, which includes restrictions on GHG emissions.

Coastal Act Section 30210 (in part)

New development shall do all of the following:

- (c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development.
- (d) Minimize energy consumption and vehicle miles traveled.

The North Coast Corridor Public Works Plan and Transportation and Resource Enhancement Program (NCC PWP/TREP) also includes the following policies, design and development strategies (DDS) and implementation measures (IM) to ensure that proposed improvements are designed, implemented, and maintained to reduce energy use, improve air quality, and minimize GHG emissions.

Policy 5.1: New highway, rail station, bicycle and pedestrian improvements, and associated community enhancements shall seek to minimize increases in energy consumption, VMT, and person hours of travel, and be consistent with SDAPCD and CARB requirements. Where new development may potentially increase energy consumption or be inconsistent with air pollution requirements, appropriate mitigation measures shall be required and implemented as discussed in Sections 5.1.3.3 and 5.1.3.4.

DDS 1: Project-level analysis of potential energy and air quality impacts from improvements shall confirm proposed improvements will avoid substantial increases to energy use or emissions, as appropriate. Should project-level analysis find that previously unidentified permanent or temporary increases to energy use or emissions would result from proposed improvements, additional study and implementation of avoidance and/or mitigation measures will be needed to ensure project consistency with PWP/TREP Policy 5.1 and applicable Coastal Act policies.

DDS 2: Where feasible, corridor design shall minimize grade changes in steep terrain areas to reduce the fuel consumed during vehicle and rail transportation (e.g., gasoline and diesel fuel).

DDS 3: Construction shall be subject to a construction energy conservation plan, where feasible.

DDS 4: Best Management Practices for project-level emissions mitigation for proposed improvements shall be implemented to address the potential for regional and localized impacts.

DDS 5: To minimize energy consumption, and in order to be consistent with SB 468, construction activities along the LOSSAN and I-5 transportation corridors shall be coordinated whenever possible.

DDS 6: To minimize energy consumption during construction, public awareness campaigns to encourage carpooling and commuting during non-peak traffic hours shall be implemented.

DDS 7: Encourage the use of innovative technologies to reduce the amount of cement (production is very energy intense) used in pavements and bridges, and yet have stronger, longer-lasting concrete.

DDS 8: Best Available Control Technology shall be implemented during construction and operation of projects, and shall include the following:

- Solicit preference construction bids that use Best Available Control Technology.
- Employ use of alternative fueled vehicles.
- Create an energy conservation plan.
- Streamline permitting process to infill, redevelopment, and energy-efficient projects.
- Use the minimum feasible amount of GHG-emitting construction materials that is feasible.
- Recycle construction debris to the maximum extent feasible.

DDS 9: Additional and/or new bicycle storage facilities (racks, locks, etc.) will be included in the improvements to existing park and ride and rail station improvements, if feasible.

Implementation Measure 5.1.1: Mitigation measures to minimize temporary construction impacts such as the emission of fugitive dust, PM₁₀, and PM_{2.5}, shall be implemented including:

- Design and Construction requirements, which would:
- Minimize land disturbance.
- Use watering trucks to minimize dust; watering shall be sufficient to confine dust plumes to the project work areas.
- Suspend grading and earth moving when wind gusts exceed 25 mph unless the soil is wet enough to prevent dust plumes.
- Cover trucks when hauling dirt.
- Stabilize the surface of dirt piles if not removed immediately.
- Limit vehicular paths on unpaved surfaces and stabilize any temporary roads.
- Minimize unnecessary vehicular and machinery activities.
- Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
- Revegetate disturbed land, including vehicular paths created during construction to avoid future off-road vehicular activities.
- Remove unused material.
- Compliance with Caltrans Standard Specification Section 14.9.03, or its future equivalent relating to Dust Control:¹
- Prevent and alleviate dust by applying water, dust palliative, or both under Section 14-9.02 (Air Pollution Control) and by covering active and inactive stockpiles under Sections 13-4.03C(3) (Stockpile Management) and 14-9.02.
- Apply water under Section 17 (Watering).
- Apply dust palliative under Section 18 (Dust Palliative).
- If ordered, apply water, dust palliative, or both to control dust caused by public traffic.

Implementation Measure 5.1.2: Roadway system efficiency shall be improved by better managing the region's transportation resources and traveler information in order to minimize congestion, improve reliability and safety, and enhance the overall productivity of the transportation system by implementing the following measures:

- Placing Intelligent Transportation System informational gathering systems, such as closed-circuit television cameras and loop detectors, in order to gather, process, and disseminate information to the transportation system users. System improvements would be planned and installed in coordination with Caltrans design

¹ *Caltrans Standard Specifications, 2010.*

and landscape personnel to be consistent with the visual and biological resource policies contained within the PWP/TREP in order to ensure that the improvements would not adversely impact significant coastal resources or views.

- Including electronic communications, such as ramp meters, changeable message signs, and “511” – call in and web traveler service. Ramp meters and signs would be planned and installed in coordination with Caltrans design and landscape personnel to be consistent with the visual and biological resource policies contained within the PWP/TREP in order to ensure that the improvements would not adversely impact significant coastal resources or views.
- Providing incident responders such as Freeway Service Patrol to reduce traffic congestion by efficiently removing disabled vehicles from the freeway, decreasing the potential for additional incidents caused by onlookers or the resulting stop-and-go traffic.

Implementation Measure 5.1.3: The project design of the NCC shall include greening and resource conservation, including:

- When installing new highway lighting and traffic signals as part of construction, where feasible energy-efficient lighting and light-emitting diode (LED) traffic signals will be used;
- When removing existing highway lighting and traffic signals as part of construction, where feasible they will be replaced with energy-efficient lighting and LED traffic signals;
- Incorporating sustainable landscaping and utilizing reclaimed water for irrigation where reclaimed water is available.

Policy Consistency Summary Analysis

Addressing energy, air quality, and GHG emissions in the NCC while also accommodating the projected growth in travel demand and achieving better coastal access requires a comprehensive approach to the transportation system. The strategy to maintain mobility and access in the NCC includes a multimodal transportation program that both accommodates projected growth, including the large volumes and diversity of trips in the corridor, and encourages alternatives to SOV travel. The multi-modal system includes the proposed CRT project which will serve to offset demand for vehicle travel by providing the opportunity to complete regional and local trips by walking and biking instead of driving.

The proposed CRT will provide new facilities for people to complete trips by walking and biking instead of driving. The project includes a new Class I multi-use path for people who walk and bike, as well as bike lanes along both sides of Coast Highway 101. As a result, it will contribute to reductions in VMT, air pollutant and GHG emissions, gasoline consumption, and congestion and travel delays. The proposed project will reduce VMT and energy consumption through investing available funds in transportation improvements that will support transportation solutions across jurisdictional boundaries, and which will facilitate Smart Growth practices that maximize mobility at the regional level, is the best means of reducing VMT and energy consumption in the region to help achieve state-mandated GHG reductions. Overall, the proposed CRT project would contribute to reductions in GHG emissions from vehicle travel and thus support State, regional and local efforts to address the effects of global climate change on coastal resources.

In order to avoid adverse energy and air quality impacts, the project will comply with applicable policies, design/development strategies and implementation measures of the NCC PWP/TREP. In accordance

with **DDS 1**, construction of the proposed CRT improvements will avoid substantial increases to energy use and emissions beyond those previously assessed in the PWP/TREP and project environmental documentation. Additionally, **DDS 3, DDS 4, DDS 7 and DDS 8** collectively require development and adherence to a Construction Energy Conservation Plan (ECP) that implements best management practices for project-level emissions during construction. This plan includes, but is not limited to, transportation demand management techniques, and use of best available control technologies (BACT). BMPs for controlling construction emissions include measures such as use of low-sulfur fuel in all construction equipment, limitations on idling vehicles, and keeping equipment properly maintained and tuned. A Traffic Management Plan has also been prepared to address energy conservation during construction.

Energy use and emissions from constructing improvements would be addressed by adherence to **IM 5.1.1**, requiring minimization of emissions from fugitive dust and particulate matter through compliance measures related to dust control.

Finally, **IM 5.1.3** requires development and implementation of greening and resource conservation measures. The project incorporates energy efficient lighting and LED lighting fixtures and the number of fixtures has been minimized to limit light disturbance and reduce energy consumption to the maximum extent feasible. The only lighting proposed is three new LED light fixtures, for the purpose of safety, at the following locations, Swamis Beach Park driveway, San Elijo State Beach North Day Use Area driveway, and the main San Elijo State Beach Campground driveway, where they intersect with the Class I path and Highway 101. The new light fixtures will be contextually appropriate, standard City of Encinitas units with LED illumination that is down cast and shielded in a manner such that light is directed downward. Providing a light fixture at these locations is intended to improve the night-time visibility of people walking and biking along the proposed Class I path as it crosses the driveways.

In conclusion, the proposed CRT project would avoid or minimize potential adverse impacts to air quality in conformance with Coastal Act Section 30253 and the policies, design/development strategies, and implementation measures within Section 5.1 of the NCC PWP/TREP.

Policy Consistency Analysis – Public Access and Recreation

The Coastal Act contains numerous policies that address protection and enhancement of public access and recreation opportunities.

Coastal Act Section 30210

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Coastal Act Section 30211

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Coastal Act Section 30212

30212(a) provides that in new shoreline development projects, access to the shoreline and along the coast shall be provided except in specified circumstances, where:

- (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources.
- (2) adequate access exists nearby, or,
- (3) agriculture would be adversely affected. Dedicated access shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.

Coastal Act Section 30212.5

Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area.

Coastal Act Section 30213

Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.

Coastal Act Section 30214

(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:

- (1) Topographic and geologic site characteristics.

(2) The capacity of the site to sustain use and at what level of intensity.

(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.

(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.

(b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution.

(c) In carrying out the public access policies of this article, the commission and any other responsible public agency shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private organizations which would minimize management costs and encourage the use of volunteer programs.

Coastal Act Section 30223

Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.

Coastal Act Section 30252

The location and amount of new development should maintain and enhance public access to the coast by (1) facilitating the provision or extension of transit service, (2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads, (3) providing nonautomobile circulation within the development, (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation, (5) assuring the potential for public transit for high intensity uses such as high-rise office buildings, and by (6) assuring that the recreational needs of new residents will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition and development plans with the provision of onsite recreational facilities to serve the new development.

Coastal Act Section 30254

New or expanded public works facilities shall be designed and limited to accommodate needs generated by development or uses permitted consistent with the provisions of this division; provided, however, that it is the intent of the Legislature that State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road. Special districts shall not be formed or expanded except where assessment for, and provision of, the service would not induce new development inconsistent with this division. Where existing or planned public works facilities can accommodate only a limited amount of new development, services to coastal-dependent land use, essential public services and basic industries vital to the economic health of the region, state, or nation, public recreation, commercial recreation, and visitor-serving land uses shall not be precluded by other development.

SANDAG is implementing the following policy, design and development strategies (DDS), and implementation measures (IM) to ensure that improvements are designed, implemented, and maintained to provide for maximum protection of public access to and along recreational resources:

Policy 5.3.1: Maximum public access to and along coastal and inland recreational resources in the PWP/TREP planning area shall be protected and enhanced, consistent with public safety and sensitive coastal resource needs.

DDS 1: Project-level analysis for potential coastal access and recreation impacts of infrastructure improvements shall confirm that proposed improvements will minimize, to the maximum extent feasible, substantial impacts to coastal access and recreation resources. Should project-level analysis find that previously unidentified permanent or temporary impacts to coastal access and recreational resources will result from proposed improvements, additional study of feasible avoidance and mitigation measures to ensure project consistency with applicable Coastal Act public access and recreation policies shall be achieved during future, project-specific Federal Consistency review.

DDS 2: To ensure a balanced approach to multimodal transportation system improvements, PWP/TREP project implementation and phasing shall be carried-out consistent with phasing procedures and requirements provided in Chapter 6A – Implementation, and all relevant procedures.

DDS 3: Submittals for individual highway, rail station and pedestrian crossings, community, and resource enhancement projects located within or directly adjacent to an existing public coastal access or recreation area (trail or parkland) shall include a description of features included in the project and shall detail the type and location of mitigation elements included in the project, which avoid and/or minimize potential temporary construction impacts to coastal access and recreation. Submittals for community enhancement projects shall include a cooperative maintenance agreement with the affected city.

DDS 4: To the extent feasible, all new/improved rail and highway facility pedestrian crossings shall be designed and constructed in compliance with applicable state and federal standards, including the Americans with Disabilities Act, and in consultation with the relevant local and state stakeholders, in order to include available safety upgrades at affected pedestrian crossings.

DDS 5: Caltrans/SANDAG will conduct ongoing coordination with the affected local jurisdiction/s regarding project design for each specific development project. Public signage and educational materials will be provided for future public access and community enhancement projects, which will include public educational measures to ensure that users are aware of temporary impacts that may be present due to construction, and to identify new public access components that are completed as a part of the PWP/TREP.

DDS 6: Additional community enhancement projects may be incorporated into the PWP/TREP, if requested by the local government and in consultation with Caltrans/SANDAG, Coastal Commission, stakeholders and resource and regulatory agencies, as applicable, and assuming the project has been identified as meeting the following evaluation criteria:

- a. The project is located within or adjacent to the LOSSAN rail and/or I-5 highway right-of-way.
- b. The enhancement project will provide regionally significant community, public access and/ or coastal resource benefits.
- c. The project will not result in significant environmental impacts beyond the impacts identified and evaluated in the LOSSAN Program EIR/EIS, the I-5 North Coast Corridor EIR/EIS, and/or the NCC PWP/TREP.
- d. Funding is available to complete project planning, design, construction and maintenance of the enhancement.

Additional community enhancement projects may be incorporated into the PWP/TREP pursuant to 1) the applicable NOID and/or PWP amendment procedures outlined in Chapter 6A of the PWP/TREP, 2) the coastal development permit review process, and/or 3) the federal consistency certification process.

Implementation Measure 5.3.1: NOID submittals for individual highway, rail station and pedestrian crossings, transit and community enhancement projects should include a final construction schedule identifying dates for project construction which should be scheduled, to the maximum extent feasible, to avoid adverse effects on traffic flow on I-5 and local arterials by closure of no more than one lane in either direction of I-5 during peak travel hours.

Implementation Measure 5.3.2: NOID submittals for individual highway, rail station and pedestrian crossings, transit and community enhancement projects should include a Demolition, Staging, Storage, Fueling, and Debris/Excess Graded Material Disposal Plan which should include provisions and requirements designed to ensure that public access pedestrian and bicycle trails and/or public recreation areas are not adversely affected by these elements of project activities, and that the footprint of disturbance associated with these activities is the minimum possible, in accordance with Caltrans' proposal. No fencing or other barriers except as specifically authorized pursuant to an approved NOID should be placed in a location that would limit public access to pedestrian or bicycle trails or other public recreation areas.

Policy Consistency Summary Analysis

The NCC PWP/TREP provides that the Coastal Rail Trail is “a dedicated bicycle facility in the region’s coastal corridor, with most segments in or adjacent to the LOSSAN rail right-of-way” and describes the CRT as “a continuous north-south bicycle route—mostly comprising Class I facilities—through the NCC with direct access to coastal resources and recreational facilities” that is “intended to serve many users: short segments serve as ideal commuter access between adjoining communities; longer segments serve to accommodate recreational bicycle users as well as some commuters; and the full length of the facility serves regional and interregional users.” (NCC PWP/TREP Section 5.3.1.3) Additionally, CRT segments are intended to contribute to the completion of the California Coastal Trail and the “braided trail” concept, meaning a trail comprised of several adjacent and complimentary trails in any given location, based upon the specific topography and land use mix in that location, as well as the types of infrastructure required to support non-motorized transportation.

The NCC PWP/TREP generally identifies the proposed CRT segment as “Chesterfield Drive to G Street (Encinitas): Construct approximately 1.7 miles of dedicated bicycle facility. Partially overlaps with LOSSAN San Elijo Lagoon Double Track project.” (NCC PWP/TREP Section 4.4.1)

The NCC PWP/TREP does not provide CRT project-level siting, but allows for siting on a project-by-project basis, as follows:

It is the intent for Coastal Rail Trail projects included for permitting in the PWP/TREP to be located within or immediately adjacent to the LOSSAN right of way - except in areas where there are environmental, safety, or physical constraints. In those instances where there are constraints, the Coastal Rail Trail shall not be located any further than 150 feet from the LOSSAN right of way. (Section 4.4.1)

This standard provides flexibility by allowing for project specific CRT siting and design that meets the NCC PWP/TREP's main requirement that the CRT provide a regional community enhancement for a continuous north-south bike and pedestrian trail along the corridor that will provide safe access to and along the coast. The proposed project is located along Coast Highway 101, which is immediately adjacent to the LOSSAN right of way. In addition, the proposed project is located within 150 feet of the LOSSAN right of way.

The proposed Coastal Rail Trail (CRT) segment constitutes a majority of the 1.7-mile Chesterfield Drive to G Street CRT segment identified as an Initial-Term (2010-2020) project in the PWP/TREP. The proposed project extends 1.3 miles along Coast Highway 101 from Chesterfield Drive to the Santa Fe Undercrossing and includes construction of a new Class I multi-use path for people to walk and bike along the west side of Coast Highway 101, which has been sited and designed to increase safety and bicycle circulation on the local roadways and facilitate new multimodal public access to coastal recreational resources. It also includes continuous bike lanes along both sides of Coast Highway 101 from Chesterfield Drive to the Santa Fe Undercrossing. As part of the 44-mile Coastal Rail Trail (CRT) regional bikeway system identified in the NCC PWP/TREP, the proposed CRT segment includes construction of approximately 1.3 miles of a new Class I bicycle facility along the west side of Coast Highway 101 for both pedestrians and bicyclists. The new facility will be approximately 14 to 16 feet in width buffered and separated from existing parking by concrete median of approximately 3 feet in width. In addition to the Class I shared-use path, the roadway would be restriped with continuous buffered bike lanes, providing wide bike lanes in both directions. For approximately 2,100 feet, the project includes a reduction in the number of lanes from two lanes in each direction to a single lane in each direction to accommodate the proposed improvements. Approximately 3,300 feet of Highway 101 in the project area is already one lane in each direction. The Traffic Operations and Analysis Report prepared for the proposed project shows that change from two lanes to one lane does not result in any adverse vehicle traffic impacts in the project area as determined by City of Encinitas standards. The existing medians would remain but may be reduced in width where necessary. The project does not remove any existing on-street parking. Moreover, approximately six (6) new ADA compliant parallel parking spaces are proposed, with associated accessible connections to the proposed Class I shared use path. Existing guardrails would be removed and replaced eastward of their current locations to accommodate the new Class I shared use path. Additionally, traffic (vehicular and non-motorized) will be accommodated to the greatest extent possible during construction activities, and phasing or other similar methods will be used to minimize the length of Coast Highway 101 subject to construction at any one time.

The proposed project would serve as a new dedicated bicycle facility in the region's coastal corridor which would connect missing CRT links where no dedicated bike lanes currently exist and would also meet the NCC PWP/TREP vision of creating a new continuous bicycle route segment with direct access to coastal resources. The existing pedestrian and bike facilities along Coast Highway 101 from Chesterfield Drive to Santa Fe Drive are not continuous. Dedicated bike lanes exist along less than half of this stretch of Coast Highway 101, forcing bicyclists onto the active roadway. In addition, people on bikes are not allowed onto the existing pedestrian path along Coast Highway 101. Specifically, in the

section immediately south of Swami’s Beach Park to just north of the Day Use Parking Lot (described west to east) there is an asphalt berm and an asphalt path with bikes only permitted for 4,600 feet of this 6,800 ft. long path segment; bikes are not permitted along a 2,200-foot section of the path. This section of pathway also includes an approximately 2,050 foot long, metal “W” beam and wood post guardrail, and paved roadway with Class II bike lanes in both directions. For 3,400 ft. of the project area length there is a discontinuous southbound bike lane of seven to eight feet in width, and 3,400 feet in length, which ends north of the point where roadway becomes four lanes (about half (3,400 feet) of Coast Highway 101 in the project area – from the northern boundary of San Elijo Campground to Chesterfield Drive – is without a southbound bike lane).

The proposed 1.3-mile-long CRT would include separated, newly striped and buffered bike lanes on the roadway, providing for regional and interregional users as required by the NCC PWP/TREP. The proposed alignment, sited within 150 ft. of the LOSSAN right-of-way, would allow for connections with the other adjoining CRT segments required to be implemented in the Initial-Term NCC PWP/TREP project phase. Thus, a new continuous connection for pedestrians, and cyclists would be provided by the proposed CRT segment in conformance with the NCC PWP/TREP.

SANDAG evaluated several alternative alignments for the proposed CRT segment, including an alignment partially within the railroad corridor on the east side of the tracks and within portions of San Elijo Avenue/Vulcan Avenue (east side or eastern alignment), and a west side alignment within the City’s right-of-way (west side or proposed alignment) along Highway 101. SANDAG is moving forward with the proposed alignment after conducting a multi-year public process with substantial input on the alternatives from community residents, stakeholders, City staff, and City elected officials. The public process culminated in the Encinitas City Council formally endorsing the west side alignment for this section of the CRT. SANDAG has determined that environmental and physical constraints associated with the east-side alignment warrant a west side alignment which meets NCC PWP/TREP siting requirements allowing a location within 150 ft. from the LOSSAN right-of-way per NCC PWP/TREP Section 4.4.1. The east side alignment alternative would alter the existing topography and landscape and would eliminate a significant amount of existing informal public parking in unpaved areas at the eastern limits of the rail corridor along San Elijo Avenue and Vulcan Avenue and the loss of informal trails along the corridor currently used by the community for coastal access and recreation. The east side alignment would also require 2,000 Cubic Yards of cut and 1,500 Cubic Yards of fill, resulting in significant landform alteration. , Due to North County Transit District requirements (the owner of this section of LOSSAN right-of-way), the east side alignment alternative would also result in the placement of a safety fence along the western edge of the proposed trail to separate trail users from the active railroad tracks, which would limit pedestrian movements to the coast. This loss of informal coastal access parking and unofficial access points to and along the coast associated with the east side alignment remains a significant concern of the community and raises concerns with the public access and recreations policies of the Coastal Act and NCC PWP/TREP, as well as a degradation in community character associated with the east side alignment’s replacement of existing informal trails and unimproved railroad property with a paved trail with a more formal appearance. SANDAG determined the west side alignment to be preferable because it would provide extensive enhancements to coastal access without the

environmental and physical constraints of the east side alignment (related to water quality, landform alteration, and visual resources), and further, would not result in the impacts caused by removal of existing formal and informal parking spaces or the regularly utilized informal access pathways located on the east side alignment. The west side alignment would not remove any existing public parking in the Coastal Zone, and it would not remove any existing publicly used informal trails within the LOSSAN right-of-way.

In addition to complying with the NCC PWP/TREP siting requirements, the proposed CRT project provides inherent public access and recreation benefits for the region and local community which satisfy Coastal Act policies and NCC PWP/TREP design and development strategies and implementation measures. The proposed CRT alignment will provide visitor interest through a new, direct and continuous, bike and pedestrian link between the popular coastal beach access points at Cardiff State Park Campgrounds and Day Use Area and Swami's Beach Park. The project will also provide a new continuous, non-automotive connection between the coastal communities of downtown Encinitas and Cardiff. In addition, the project will be accessible to people who walk and bike on the east side of the LOSSAN right-of-way. At the northern end, the project terminates at the Santa Fe Undercrossing, which provides a bike and pedestrian crossing underneath the railroad tracks at Santa Fe Drive. At the southern end, the project terminates at Chesterfield Drive. As part of the double tracking project currently under construction, Chesterfield Drive will be improved with new bicycle and pedestrian crossings from Coast Highway 101 across the railroad tracks to San Elijo Avenue. Thus the proposed CRT segment will be interconnected to other public access improvements and circulation links. Proposed physical improvements included in the project that will facilitate improved and new multimodal access in the project corridor include painted markings for crosswalks, new painted or raised medians, new pedestrian refuge islands, new signage, re-striping of vehicle lanes, repaving the roadway surface consistent with Class I pathway requirements to accommodate safe shared pathway access, three new LED light fixtures, for the purpose of safety, at the following locations, Swamis Beach Park driveway, San Elijo State Beach North Day Use Area driveway, and the main San Elijo State Beach Campground driveway, where they intersect with the Class I path and Highway 101, and 42-inch-tall post and cable fencing to serve as fall protection,, and other minor physical improvements. The project will not remove any existing public parking.

The proposed project will reduce the posted speed limit from 45 mph to 35 mph to improve safety for people who walk, bike, and drive and support comfortable public use of the proposed multimodal transportation facility. To ensure that the proposed change in traffic speed and other proposed project components would not adversely impact access in the immediate area a Traffic Operations Analysis Report was prepared. The report, prepared on behalf of SANDAG by STC Traffic, Inc. in January 2017, evaluated the vehicle traffic impacts of the proposed 1.3 mile CRT project through the year 2035, including an analysis of intersection operations, roadway segments operations, and travel time. The report observed traffic volumes along Coast Highway 101 in the project area during three time periods: a weekday (Wednesday) during the morning and evening peak periods; a Friday evening; and a Saturday during the mid-day. The highest directional volume occurred during the Wednesday morning peak period with 1,123 vehicles per hour (vph) on southbound Coast Highway 101 at Chesterfield Drive.

Northbound and southbound volumes were lower than 1,123 vph on Friday evening and Saturday mid-day. Therefore, the project's traffic operations analysis report uses the observed weekday volumes. The Traffic Operations Analysis Report identified the following existing conditions within the proposed project area:

Coast Highway 101, from San Elijo Campground Day Use Parking Lot Entrance to Main Campground Entrance

There are two travel lanes in each direction between the San Elijo Campground Day Use Parking Lot Entrance and the Main Campground Entrance. The northbound and southbound travel lanes are separated by a striped median that varies in width from 12 to 15 feet. There is a continuous Class II bike lane along northbound Coast Highway 101, but no southbound bike lane.

The widths of the two northbound travel lanes vary from 11 to 12 feet. The width of the left southbound travel lane varies from 10 to 11 feet, and the southbound curb lane width varies from 16 feet where on-street parking is present to 24 feet adjacent to no-parking zones. The southbound curb lane flares for approximately 215 feet before transitioning to dual entrance lanes into the San Elijo Campground. The flared lane is designed to accommodate queued vehicles entering the campground during peak season.

On-street parallel parking is provided southbound for approximately 460 feet. Northbound on-street parking is only permitted near the Day Use Parking Lot Entrance along a dirt shoulder for approximately 150 feet.

Coast Highway 101, from San Elijo Campground Main Campground Entrance to Chesterfield Drive

There are two travel lanes in each direction between the San Elijo Campground Main Entrance and Chesterfield Drive. The northbound and southbound travel lanes are separated by a 12-foot wide striped median. A continuous northbound Class II bike lane is provided along this segment, but there is no southbound bike lane. Northbound travel lane widths vary from 11 to 12 feet, and the southbound travel lane widths vary from 10 feet to 28 feet, with wider travel lane widths adjacent to no-parking zones. On-street parallel parking is permitted southbound for approximately 480 feet. Northbound on-street parallel parking is permitted for approximately 340 feet.

The section of Coast Highway 101 that is four-lanes (south of the San Elijo Campground northern boundary to Chesterfield Drive) under existing conditions is proposed to be reduced to two-lanes as part of the CRT project. However, four lanes are maintained through the intersection of Coast Highway 101/Chesterfield Drive. Along Coast Highway 101, one through lane in each direction will be removed through the intersection at the Day Use Campground parking lot and at the Campground Main Entrance and existing right turn and left turn lanes will be maintained. For all other intersections, the existing intersection geometry will remain unchanged with the project. Specifically, the Traffic Operations Analysis Report found that without the proposed project, traffic volumes along Coast Highway 101 are

anticipated to increase to approximately 18,000 vpd by 2035. This result demonstrates that the capacity of Coast Highway 101 would be approximately 15,000 vpd after implementation of the proposed project. Therefore, forecasted increase in traffic volumes for Coast Highway 101 in 2035 without the Project, about 3,000 vpd, would be shifted to other roadways in the project area, including approximately 1,600 vpd on San Elijo Avenue north of Birmingham Drive, and approximately 1,110 vpd on San Elijo Avenue south of Birmingham Drive should the project be implemented. The remaining trips are forecasted to disperse to other roadways in the area as well, including Vulcan Avenue, Santa Fe Drive, Birmingham Drive, and Interstate 5. Since the project redistributes the majority of the trips to San Elijo Avenue, this scenario includes analysis of how the proposed project would affect traffic conditions on San Elijo Avenue. The future volumes added to the other corridors are nominal (less than 500 vpd) and not anticipated to affect operations along those corridors. Therefore, corridors such as Birmingham, Vulcan and Santa Fe were not included in the analysis. For the study area the Traffic Operations Analysis Report found that the proposed project would not significantly increase travel time during peak AM or PM periods, would allow roadway segments to continue operating at acceptable levels of service threshold of LOS D or better¹, and would allow intersections to continue operating at acceptable levels of service LOS D or better during peak hours. As such, the proposed project is not expected to adversely impact traffic levels or public access.

The Traffic Operations Analysis Report also looked at potential traffic and access impacts to the existing San Elijo State Park Campground as a result of the proposed project. The existing main campground entrance has two entry lanes for queued vehicles arriving and checking in at the San Elijo Campground. Immediately upcoast from the two entry lanes, there is a flared curb with a no parking zone along southbound Coast Highway 101 to allow for additional vehicular queuing during peak summer and holiday weekends. The two entry lanes are approximately 300 feet in length to the campground entry station, which provides a total of 600 feet of stacking for queued vehicles. The flared curb provides an additional 215 feet of stacking beyond the entry lanes to accommodate queuing during peak arrival periods. Many of the campers at San Elijo Campground arrive in RVs, which range from 30 to 50 feet in length, which means that 5 to 7 vehicles per lane is the maximum storage capacity under the existing and proposed conditions. The two entry lanes and the flared curb will remain relatively unchanged by the proposed project. However, the proposed southbound buffered bike lane would be striped adjacent to the flared curb and the Class I trail would cross the entry near the existing pedestrian crossing. During peak arrival times at the campground, queued vehicles may extend beyond the available storage area, which could in turn result in queued vehicles encroaching into the buffered bike lane. It is possible that queuing may spill back beyond the entry lanes during peak arrival times such as Friday afternoons of holiday and summer weekends. The length of the queue is a function of the State Parks guest processing time and the arrival rate of vehicles at Main Entrance to the campground. These factors are outside of the control of SANDAG and the City of Encinitas, however the City and SANDAG are actively coordinating with State Parks and understand that State Parks is evaluating potential solutions to manage queuing

¹ See Table 2-2 in the January 2017 Traffic Operations Analysis Report for more detail regarding City of Encinitas standards for traffic level of service.

particularly during the peak times. Potential solutions that may be discussed with State Parks to address peak period campground queuing that may impede the bicycle and/or travel lanes include:

- Developing an on-line check-in process via mobile device
- Shifting the guest processing location further into the campground to accommodate a longer queue on-site
- Identifying and implementing methods to increase the speed of processing guests or process guests
- Assigning arrival time appointments spreading the arrivals out
- Conducting guest check in at the camp site.
- Increasing staffing and operate both lanes during peak arrival teams
- Other efficiency improvements at the check-in station

On the outbound approach from the campsite, there exists a northbound acceleration lane for vehicles turning left from the campground onto Highway 101. The acceleration lane allows the larger, slower moving RVs to reach the corridor free-flow speed and enter the traffic flow. It also allows vehicles to cross one direction of traffic at a time. The existing acceleration lane will be maintained with the project. Cumulatively, the proposed project improvements and ongoing coordination with State Parks will ensure that queuing during peak periods of use at the campground will not adversely impact access to or function of the proposed CRT segment.

Temporary impacts to public access will be minimized during construction. Construction activities and staging may temporarily disrupt travel along Coast Highway 101 and the existing bike lane and walking path, but such disruptions will be managed in cooperation with the City of Encinitas and State Parks through implementation of the Traffic Management Plan. Construction for the proposed CRT segment will take approximately 12 months. Additionally, to further minimize impacts to public access, construction activities are not anticipated to occur between Memorial Day weekend and Labor Day weekend. In accordance with **DDS 1** and **DDS 3** temporary impacts to access and recreation from construction and staging will be minimized to the maximum extent feasible. SANDAG has developed a conceptual construction access plan, staging and conceptual Traffic Management Plan which will maintain vehicular and pedestrian access along construction areas. Signage will be posted at the construction site with the construction schedule and directing to alternative/temporary access in accordance with **DDS 5**. A combination of fencing, cones, and flaggers will be utilized. No fencing or other barriers, except as specifically authorized pursuant the NOID, will be placed in a location that would limit public access to pedestrian or bicycle accessways or other public recreation areas. When safe and feasible, a path will be cleared for pedestrian access at the end of each construction shift. Debris will be collected frequently and stored away from pedestrian and bicycle accessways and will be hauled off site on a regular basis. These measures are detailed in the Demolition, Staging, Storage, Fueling and Debris/Excess Graded Materials Plan to be submitted pursuant to **IM 5.3.1**.

DDS 2 requires consistency with Chapter 6A phasing and project implementation procedures and requirements. In accordance with **DDS 2**, the proposed improvements are consistent with the Phasing Plan in Chapter 6A of the NCC PWP/TREP for the initial-term (2010-2020). A cooperative maintenance

agreement is necessary for this project pursuant to **DDS 3** because the improvements are located on property owned by the City of Encinitas and the City will own and maintain the project after it is constructed. As such, SANDAG has conducted ongoing coordination with the City regarding project design for the proposed CRT project as required by **DDS 5**.

DDS 4 provides for new pedestrian crossing designs to demonstrate compliance with applicable state and federal standards, including the Americans with Disabilities Act (ADA), and requires documentation of the consultation process with the relevant local and state stakeholders for any available safety upgrades at the pedestrian crossings. Proposed pedestrian crossings will meet ADA requirements.

In conclusion, the proposed improvements comply with all NCC PWP/TREP siting and design standards for location of the CRT and the project would ultimately result in inherent substantial benefits to coastal access and recreation. Temporary construction impacts have been minimized to the maximum extent feasible in accordance with the NCC PWP/TREP policies, design and development strategies, and implementation measures ensures as described above.

Policy Consistency Analysis – 5.4 Marine Resources: Water Quality and Wetlands

The following Coastal Act policies address the protection and enhancement of water quality and marine resources:

Coastal Act Section 30230

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Coastal Act Section 30231

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams

Coastal Act Section 30233

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

- (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.
- (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.
- (3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.
- (4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.
- (5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.
- (6) Restoration purposes.
- (7) Nature study, aquaculture, or similar resource dependent activities.

(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.

(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division.

For the purposes of this section, "commercial fishing facilities in Bodega Bay" means that not less than 80 percent of all boating facilities proposed to be developed or improved, where such improvement would create additional berths in Bodega Bay, shall be designed and used for commercial fishing activities.

(d) Erosion control and flood control facilities constructed on water courses can impede the movement of sediment and nutrients which would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for such purposes are the method of placement, time of year of placement, and sensitivity of the placement area.

The North Coast Corridor Public Works Plan and Transportation and Resource Enhancement Program (NCC PWP/TREP) also includes the following policies, design and development strategies (DDS) and implementation measures (IM) to ensure that proposed improvements are designed, implemented, and maintained to provide for maximum protection of marine resources:

Policy 5.4.1: NCC transportation facility and community enhancement projects shall be sited and designed so that marine resources are maintained, enhanced, and, where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance.

Policy 5.4.2: Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Policy 5.4.3: Coastal water quality shall be restored by minimizing wastewater discharges, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging wastewater reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural watercourses.

DDS 1: Development shall be sited and designed to protect and, where feasible, restore natural hydrologic features such as groundwater recharge areas, natural stream corridors, floodplains, and wetlands. Key areas near lagoons shall be designed with minimum lane and shoulder widths to avoid impacts to natural hydrologic components of the watershed.

DDS 2: Development shall be designed and managed to maintain or enhance on-site infiltration of runoff where appropriate.

DDS 3: Runoff management shall be incorporated early in site design planning integrating existing site characteristics that affect runoff (such as topography, drainage, vegetation, soil conditions, and infiltration properties) with strategies that minimize post-project runoff, control pollutant sources, and, where necessary, remove pollutants. Project-level analysis for potential water quality and marine habitat impacts of improvements shall be conducted and subject to review during subsequent project-specific federal consistency review, NOID, or coastal development permit review, as specified in Chapter 6A, to assess and identify all potential permanent or temporary impacts to water quality and marine habitats and appropriate mitigation measures to ensure project consistency with Coastal Act policies 30230, 30231 and 30233. Project-level analysis shall include the following technical studies and shall be documented in the WQMP or expanded-format SWDR:

- Field surveys of potential surface water impacts to further analyze potential impacts on water quality and to seek required permits from the appropriate agencies.
- Identification of potentially substantial alteration in water-flow and drainage patterns, including increased stormwater runoff, increased groundwater discharge or reduction of groundwater recharge. Project-specific studies shall determine acceptable designs and construction techniques to minimize adverse impacts of increased sedimentation that would occur during in-water work in the lagoons and elsewhere. Potential minimization measures and timing windows shall be developed in consultation with resource agencies and lagoon planning.
- Analysis of how the different alignment and design options would contribute to total additional impervious surface and the subsequent potential additional impacts on surface runoff. This analysis shall also identify potential mitigation measures, including onsite retention facilities.
- Analysis and provision, to the extent feasible, of future requirements for load reductions of project generated contaminants for coastal waters within the improvement area.
- Delineation of waters and wetlands to determine the extent of U.S. Army Corps of Engineers, California Coastal Commission and CDFW jurisdiction, and consultation conducted with these agencies regarding appropriate mitigation.
- Analysis of future sea level rise scenarios, and any design options for new bridge structures to reduce the potential for flooding.

DDS 4: Permit requirements as part of project-level review would include Storm Water Pollution Prevention Plans (SWPPP) and NPDES permits, other applicable jurisdictional requirements, and ultimately, the provisions and protocols set by the PWP/TREP. Under the requirements of the NPDES California Department of Transportation Statewide Storm Water Permit and the Construction General Permit, an SWPPP would be developed during construction and implemented to reduce pollutants in stormwater discharges and the potential for erosion and sedimentation. The SWPPP would include BMPs to minimize potential short-term increases in sediment transport caused by construction, including erosion control requirements, stormwater management, and channel dewatering for all stream and lake/lagoon crossings. BMPs may include the following:

- Practices to minimize the contact of construction materials, equipment, and maintenance supplies with stormwater.
- Practices to reduce erosion of exposed soil including soil stabilization, watering for dust control, perimeter silt fences, placement of rice straw bales, and sediment basins. All SWPPP shall utilize BMPs that incorporate the best available science and technology in order to ensure that runoff is treated to the maximum extent feasible.
- Applicable NPDES permit requirements, supplemented by the provisions and protocols set by the PWP/TREP, shall be followed, and maximized-capacity BMPs and enhanced infiltration through the natural environment shall be implemented. These may include measures to provide permeable surfaces where feasible and to retain and treat runoff onsite using catch basins and treatment (filtering) wetlands, especially in areas around existing stations where feasible and at new stations where parking is provided.

- Practices to maintain water quality including filtration, detention, and retention systems, constructed wetland systems, biofiltration / bioretention systems, grass buffer strips, ponding areas, organic mulch layers, planting soil beds, sand beds, or vegetated systems (biofilters) such as vegetated swales and grass strips designed to convey and treat either shallow flow (swales) or sheetflow (filter strips) runoff.

DDS 5: A spill prevention and emergency response plan shall be implemented to handle potential fuel or other spills for all construction.

DDS 6: Impacts to lagoon, riparian or other isolated wetland habitats shall be fully mitigated pursuant to the REMP detailed in Chapter 6B as it relates to no net loss of habitat, habitat preservation, and comprehensive lagoon restoration program mitigation.

DDS 7: Options and benefits for coordinating rail and highway infrastructure construction plans in the lagoon areas shall be analyzed for potential benefits to lagoon systems and feasibility for rail and highway project implementation.

DDS 8: All vegetated stormwater basins, vegetated filter strips, vegetated swales, and other natural drainage features that may be installed per the PWP/TREP may exhibit wetland or other habitat characteristics over time, however their primary function is for water quality filtration and treatment, flow control, and infiltration. As such, standard maintenance on a regular basis is anticipated to be necessary to maintain their intended function, and is therefore allowed pursuant to this PWP/TREP. These devices are not to be treated as wetlands including for purposes of Design/Development Strategy 11, and Implementation Measure 5.4.7.

DDS 9: A Water Quality Management Plan (WQMP) or expanded-format Storm Water Data Report (SWDR) that addresses post-construction BMPs as well as enhanced infiltration through the natural environment opportunities shall be prepared to protect and restore coastal water quality. The WQMP or enhanced-format SWDR shall include, but not be limited to, final drainage plans showing the location and design of bioswales or other NPDES approved treatment BMPs along with supporting calculations/evidence that demonstrate the facilities are designed to treat, infiltrate or filter storm water from each runoff event, up to and including the 85th percentile, 24-hour runoff event for volume-based BMPs, and/or the 85th percentile, 1-hour runoff event, with a factor of safety of 2X, for flow-based BMPs.

DDS 10: The WQMP or expanded-format SWDR shall address existing project surfaces wherever it is feasible to do so. Tables 5.4-8 A/B record the results of how existing highway surfaces, in addition to newly created highway surfaces shall be used as a model for projects authorized by the PWP/TREP to address water quality. The San Elijo HOV Project example will serve to illustrate the process used to identify the extent of the cumulative area of the impervious highway surface that can be addressed.

DDS 11: Low Impact Development (LID) strategies shall be used preferentially, which emphasize an integrated system of decentralized, small-scale control measures to minimize alteration of the site's natural hydrologic conditions through infiltration, evapotranspiration, filtration, detention, and retention of runoff close to its source. Onsite retention LID BMPs shall be sized and designed to ensure onsite retention, without runoff, of the volume of runoff produced from a 24-hour, 85th percentile storm event.

DDS 12: The WQMP or expanded-format SWDR shall prioritize the treatment of the newly created impervious areas. Where it is impractical to hydraulically separate runoff from the existing impervious area, the applicant shall provide treatment for newly created impervious areas and as much of the hydraulically inseparable flow as feasible, based on site conditions and constraints and consistent with the NPDES Permit supplemented by the provisions and protocols set by the PWP/TREP. If it is not possible to separate the flows from newly created impervious areas from the existing impervious areas, the treatment BMPs shall be designed to treat as much of the hydraulically inseparable flow as feasible, and shall bypass or divert any excess around the BMP to prevent overloading the BMP or impairing its performance.

DDS 13: Existing impervious surface shall not be treated in lieu of newly created impervious surface unless it is infeasible to treat the newly added surface. Where it is infeasible or impractical to provide onsite treatment of stormwater runoff from the highway, the WQMP or expanded-format SWDR shall document why it is impractical or infeasible to treat these areas.

DDS 14: Landscaping plans shall include only species native to southern California such that the proposed planted areas will be compatible with surrounding natural and manmade areas. No plant species listed as problematic and/or invasive by the California Native Plant Society (<http://www.CNPS.org/>), the California Invasive Plant Council (<http://www.cal-ipc.org/>), or as may be identified from time to time by the State of California shall be employed or allowed to naturalize or persist on the site. No plant species listed as a "noxious weed" by the State of California or the U.S. Federal Government shall be utilized within the property.

DDS 15: An evaluation of the development area shall be conducted for all improvements proposed in areas where wetlands may occur and shall be submitted with the project-specific NOID, federal consistency review or coastal development submittal. The evaluation shall include any changed site conditions that could affect wetland values protected by the PWP/TREP. A technical wetland delineation shall be completed in the proposed development area (i.e., the proposed development footprint and a surrounding 100-foot buffer area) pursuant to the wetland definition in Section 13577(b) of the Commission's Regulations (Title 14 of the California Code of Regulations). Should wetland areas be identified within 100 feet of the development area during this process that are not already considered in the PWP/TREP, all wetland resource protection measures included in this PWP/TREP shall be applied to the newly identified wetland area. For any newly identified wetland area, an appropriate buffer/setback shall be established, based upon site-specific conditions in accordance with Implementation Measure 5.4.7.

DDS 16: Where applicable, submittals for specific project implementation shall include an evaluation of impacts and benefits of removal of existing earthen fill from lagoon crossing structures, and of design options for new structures that reduce the amount of fill required in lagoons. Opportunities to improve coastal hydrology/hydraulics in tidal lagoons utilizing specific construction methods or facility designs shall be consistent with the lagoon optimization studies (see Appendix K).

DDS 17: Development shall be sited, designed, and managed to avoid adverse impacts from stormwater or dry weather runoff to ESHAs.

DDS 18: The installation of pervious pavements at parking facilities/areas to hydraulically disconnect runoff between impervious pavements shall be implemented where feasible.

DDS 19: Buffers/setbacks for wetlands delineated at the time of PWP/TREP certification shall be maintained as identified on Figure 5.4-2, unless reduced wetland buffers/setbacks are authorized pursuant to the NOID, Coastal Development Permit and/or Public Works Plan Amendment procedures contained in Chapter 6A. For any new wetlands identified and delineated pursuant to Design/Development Strategy 11, development shall be sited and designed to avoid and minimize wetland impacts, where possible, and appropriate buffers/setbacks provided based on a site-specific biological evaluation confirming the buffers/setbacks are adequate to avoid or minimize significant adverse impacts to wetland resources.

DDS 20: Debris from the replacement of old bridges or construction of new bridges shall be contained, such that debris is not released into lagoons, rivers or other waterbodies.

DDS 21: Development shall treat runoff from proposed additional project surfaces, and shall maximize opportunities to retrofit existing project surfaces, so that pollutants carried in runoff and the changes in runoff volume itself, including flow rate, duration, timing and temperature, are minimized.

DDS 22: All improvements authorized by the PWP/TREP shall implement project-specific Standard and Heightened Design Treatment BMPs such as those included as an example in Table 5.4-8 A/B/C for the San Elijo HOV Project, and shall be documented in the WQMP or expanded-format SWDR. These project-specific standards shall use all available opportunities, including enhanced infiltration through the natural environment, retrofitting existing BMPs to address additional runoff, and providing maximized BMP capacity to fully protect and restore, where feasible, coastal water quality.

DDS 23: PWP/TREP projects shall be integrated with regional planning efforts including coordinating with co-permittees of the NPDES permit for Discharges from the MS4 Draining the Watersheds within the San Diego Region. PWP/TREP projects shall be designed to not cause or contribute to exceedances of water quality standards identified in the San Diego Basin Plan, per the State Water Resources Control Board Order No. 2012-0011-DWQ or any permit reissuance thereafter. At a minimum, projects located within the drainage areas of Total Maximum Daily Loads (TMDLs) adopted prior to construction, including but not limited to, the Bacteria 1 TMDL (San Diego Regional Water Quality Control Board Resolution No. R9-2010-0001) and Los Peñasquitos lagoon Sediment TMDL (San Diego Regional Water Quality Control Board Resolution No. R9-2012-0033), shall be designed to comply with TMDL requirements.

DDS 24: PWP/TREP projects shall be integrated with regional planning efforts mandated by the County of San Diego Hydromodification Plan. In-channel flow mitigation contemplated by Caltrans under the Statewide Storm Water Permit Waste Discharge Requirements for the State of California Department of Transportation shall be coordinated with the regional co-permittees of the Hydromodification Plan to maximize the cumulative effectiveness of the strategies utilized.

DDS 25: In order to protect and restore water quality, all improvements authorized by the PWP/TREP shall prioritize water quality protection and restoration strategies in the following order:

- a. Site design planning (e.g., avoidance and minimization, ROW availability for water quality mitigation)
- b. Integrated LID BMPs (e.g., direct runoff to pervious surfaces and vegetated areas, earthen-based BMP design)
- c. Urban-oriented treatment BMPs (e.g., media filters)
- d. Maintenance BMPs (e.g., enhanced mechanical sweeping); and
- e. Only after all strategies listed above have been exhausted, or if a superior water quality benefit to the impacted watershed(s) within the Coastal Zone can be demonstrated, offsite mitigation with a direct benefit to water quality.

DDS 26: Each request for authorization to proceed with any development identified by the PWP/TREP shall include a demonstration of the means and commitment to implement concurrently with construction, and maintain for the life of the project, all water quality protection and improvement strategies designed for the specific project

Implementation Measure 5.4.1: Operational and construction BMPs shall be implemented for all maintenance and construction activities in accordance with the Statewide Storm Water Management Plan (SWMP) and the provisions of the NPDES Permit (Order 99-06-DWQ) and any permit reissuance thereof (e.g., Order 2012-0011-DWQ).

Implementation Measure 5.4.2: Maintenance BMPs shall be implemented for all improvements to provide preventative measures to ensure that maintenance activities are conducted in a manner that reduces the amount of pollutants discharged to surface waters via Caltrans stormwater drainage systems. Maintenance BMPs shall be

implemented for the life of the facility and include litter removal, toxics control, street sweeping, or other approved measures contained in the *Storm Water Quality Handbook–Maintenance Staff Guide*.

Implementation Measure 5.4.3: Design Pollution Prevention BMPs shall be implemented for all improvements to prevent downstream erosion, to stabilize disturbed soil areas and maximize vegetated surfaces consistent with NPDES Permit standards. Design pollution prevention BMPs shall consider downstream effects related to potentially increased runoff and flow caused by proposed improvements and may include the following measures:

- Preservation of Existing Vegetation
- Concentrated Flow Conveyance Systems
 - Ditches, Berms, Dikes and Swales
 - Overside Drains
 - Flared Culvert End Sections
 - Outlet Protection/Velocity Dissipation Devices
- Slope/Surface Protection Systems
 - Vegetated Surfaces
 - Hard Surfaces
- Other Approved Measures

NOID submittals for proposed improvements shall identify the type and location of design pollution prevention BMPs to be implemented and maintained for specific project improvements consistent with NPDES Permit standards.

Implementation Measure 5.5.4: Approved treatment BMPs shall be implemented for all improvements to prevent or minimize the long-term potential impacts from facilities or activities. Required treatment BMPs shall be limited to those determined to be technically and fiscally feasible (i.e., constructible, maintainable, and effective at removing pollutants to the maximum extent practicable), which may include:

- Biofiltration Systems
- Infiltration Devices
- Wet Basins
- Detention Devices
- Dry Weather Flow Diversions
- Media Filters
- Gross Solid Removal Devices
- Other Caltrans-Approved Measures

NOID submittals for proposed improvements shall identify the type and location of treatment BMPs, and shall confirm the feasibility of identified treatment methods in relation to right-of-way limitations, environmental constraints or hydraulic capacity. Where treatment BMPs cannot be incorporated due to above-mentioned reasons, vegetation shall be maximized and every effort will be made to ensure the successful establishment of landscaping and erosion control throughout the project limits.

Implementation Measure 5.4.5: Construction and phasing plans for improvements shall preserve the existing vegetation outside the work areas, stabilize slopes with vegetative cover comprised of native plant species and keep the total paved area to a minimum.

Implementation Measure 5.4.6: Construction BMPs shall be implemented for all improvements to reduce pollutants in stormwater discharges and to eliminate non-stormwater discharges. Construction BMPs shall be implemented according to applicable BMP Manuals, and may include the following measures:

- Temporary Soil Stabilization
- Temporary Sediment Control
- Wind Erosion Control
- Tracking Control
- Non-Storm Water Management
- Waste Management and Materials Pollution Control

NOID submittals for proposed improvements shall include a construction phasing and staging plan that identifies the type and location of all construction BMPs to be implemented as part of project construction.

Implementation Measure 5.4.7: Appropriate BMPs shall be implemented to minimize erosion and sedimentation to lagoons, rivers or other waterbodies. During construction, development shall avoid the use of temporary rolled erosion and sediment control products that incorporate plastic netting, to minimize wildlife entanglement and plastic debris pollution. When no longer required, temporary sediment and erosion control BMPs shall be removed.

Implementation Measure 5.4.8: Caltrans approved treatment BMPs such as biofiltration swales, detention basins and other Caltrans-approved treatment BMPs, as well as opportunities to enhance infiltration through the natural environment, by directing runoff to vegetated areas, open space, and wetlands, shall be placed throughout the project limits to filter and detain as much runoff from the highway surface as is feasible prior to reaching wetlands and other waters of the U.S., as space is available and based on site-specific conditions and shall be documented in the WQMP or expanded-format SWDR.

Implementation Measure 5.4.9: Fueling of construction equipment shall occur in designated areas at a distance no less than 100 feet from the lagoon, river, or other water bodies and associated plant communities to preclude adverse water quality impacts. A minimum 100 foot fueling setback from waterbodies shall be provided except where i) in-water construction activities for lagoon bridge replacement is required and it would be impractical to transport large equipment to an upland location for each refueling, and ii) where site constraints (such as ESHA or existing infrastructure) adjacent to waterbodies do not allow for a setback of 100 ft. Where a minimum 100 ft. setback from waterbodies for fueling is infeasible, as listed in herein, the maximum setback possible shall be provided given the site constraints and additional BMPs shall be implemented. Additionally, for any in-water fueling, fueling shall take place in a location that has been dewatered and all refueling activities shall be monitored by appropriate personnel identified by the contractor. Equipment and vehicles shall be inspected daily for fuel or fluid leaks, and leaking equipment or vehicles shall be repaired or replaced immediately. If any leaks are detected or impacts to water quality occur, the Site Management Program/Contingency Plan prepared pursuant to IM 5.8.11 shall specify notification requirements and an emergency protocol for spill containment and clean up. The contractor shall have available at each staging area adequate spill containment equipment (e.g., absorbent materials, containment booms, etc.) to respond to potential fuel or oil spills or leaks from project-related vehicles and equipment.

Implementation Measure 5.4.10: NOID or coastal development permit submittals for wetland habitat establishment, restoration and/or preservation/enhancement plans proposed in accordance with the REMP detailed in Chapter 6B shall include the following information and materials:

- Clearly stated objectives and goals for the wetland habitat establishment, restoration and/or preservation/enhancement plans.
- Baseline data regarding the biological, physical, and chemical criteria for the establishment, restoration and/or preservation/enhancement site.
- Documentation demonstrating the proposed wetland establishment, restoration and/or preservation/enhancement project will continue to function as a viable wetland over the long-term.
- Technical detail in the project design including, at a minimum, an engineered grading plan and water control structures, methods for conserving or stockpiling topsoil, a planting program including removal of exotic

species, a list of all species to be planted, sources of seeds and/or plants, timing of planting, plant locations and elevations on the mitigation site base map, and maintenance techniques.

- Documentation of performance standards, which provide a mechanism for making adjustments to the establishment, restoration and/or preservation/enhancement site when it is determined through monitoring the enhancement or restoration techniques are not successful.
- Description of management and maintenance requirements, and provisions for remediation should the need arise.
- An implementation plan that demonstrates there is sufficient scientific expertise, supervision, and financial resources to carry out the proposed activities.
- A monitoring program to be implemented after completion of the wetland establishment, restoration and/or enhancement project with appropriate provisions to ensure the project has successfully met the stated goals and objectives.

Implementation Measure 5.4.11: Early pre-consultation with the CCC, and affected local jurisdiction upon request, shall occur at the earliest feasible time to provide for adequate review and comment periods to identify new and/or appropriate BMPs, if BMPs are determined infeasible pursuant to Implementation Measure 5.4.4 and/or cannot be incorporated within the existing highway or rail corridor rights-of-way, pending the following parameters can be met:

- Completion of the project Geotechnical Report identifying the rate of infiltration.
- Completion of at least 30% Design Plans.
- Design features of the BMP do not create a safety hazard for the public or maintenance forces.
- No impacts to wetlands or ESHA in the siting or implementation of the BMP would occur.

Implementation Measure 5.4.12: Source Control BMPs shall be used, which can be structural features or operational actions, in all development to control pollutant sources, minimize runoff, and preserve or improve existing water quality.

Implementation Measure 5.4.13: If implementing Site Design, LID, and Source Control strategies is not sufficient to minimize pollutants in runoff from development and in turn protect coastal waters, treatment BMPs sized for the appropriate design storm shall be used.

Implementation Measure 5.4.14: The extent of new impervious surface area shall be minimized, and LID techniques shall be maximized and documented in the WPMP or expanded-format SWDR.

Implementation Measure 5.4.15: Stormwater outfalls shall be sited, designed, and managed to minimize the adverse impacts of discharging concentrated flows of stormwater or dry weather runoff into coastal waters, intertidal areas, beaches, bluffs, or stream banks. Runoff control/dissipater features shall be located and designed to convey and discharge runoff to waterways in a non-erosive manner. Soft options (i.e., soft bottoms) for runoff control/dissipater features shall be used, where feasible.

Implementation Measure 5.4.16: Development shall be sited, designed, and managed to preserve or enhance vegetation that provides water quality benefits such as transpiration, vegetative interception, pollutant uptake, and erosion control.

Implementation Measure 5.4.17: All BMPs shall be inspected, maintained, operated, and managed to ensure water quality permit requirements are met for the life of the development.

Implementation Measure 5.4.18: All post-construction treatment control BMPs and ancillary drainage features shall be inspected annually. Records of inspection and maintenance of post-construction treatment control BMPs and the operation of source control BMPs within the PWP/TREP boundaries shall be submitted annually to the CCC.

Policy Consistency Summary Analysis

The proposed Coastal Rail Trail (CRT) project has been sited and designed to avoid adverse impacts to water quality and marine resources. The proposed project would occur within a previously improved paved and developed area within and adjacent to Highway 101. As part of the 44-mile Coastal Rail Trail (CRT) regional bikeway system, the project consists of the construction of an approximately 1.3 miles of Class I bicycle facility along the west side of Coast Highway 101 for both pedestrians and bicyclists. The Project will develop a Class I shared-use pathway of approximately 14 to 16 feet in width, separated from existing parking by a concrete median of approximately 3 feet in width. In addition to the Class I shared-use path, the roadway would be restriped with continuous buffered bike lanes, providing wide bike lanes in both directions. The project site is located directly inland of a coastal bluff.

The proposed project has been sited and designed to protect any natural hydrologic features located off site and to minimize the potential for adverse impacts to water quality in accordance with **DDS 1** and **DDS 3**. The project would be constructed within an existing developed paved roadway. The project has been designed to minimize impacts to water quality and marine resources in conformance with all design/development strategies and implementation measures in the NCC PWP/TREP. Drainage work includes installation of modifications and upgrades to existing curbs, gutters, and drainage inlets and cleaning of existing culverts by removing mud and trash inside the culverts. A Water Quality Assessment Report (WQAR) was prepared for the proposed project which incorporates the NCC PWP/TREP design and development strategies and implementation measures to minimize impacts to coastal waters. As well, a memo responding to staff questions regarding the project and water quality has been prepared and submitted with the NOID. A Hydrology Study for the project evaluating existing and proposed conditions has been prepared and is located in Appendix A of the WQAR. The proposed project includes drainage improvements to minimize erosion potential. A draft conceptual Storm Water Pollution Prevention Plan (SWPPP) has been prepared addressing construction BMPs.

General topography for the project site is relatively flat with minor sloped areas. Coast Highway 101 in the project area has a gentle slope that increases from Chesterfield Drive to the Santa Fe Drive pedestrian crossing. Currently the street is crowned to allow water to sheet flow to either side and water that flows to the east enters a drainage channel that outlets into the San Elijo Lagoon outlet while water that flows to the west enters the San Elijo State Beach campground or grated inlets that eventually discharge towards the Pacific Ocean. The direction of existing surface water flow will remain the same and all on-road flow will ultimately be received by the Pacific Ocean. The project will convert space within the existing developed roadway used by vehicles to space for people to walk and bike. The project would reduce the surface area of Highway 101 that collects pollutants from vehicles, which ultimately enter stormwater runoff and downstream water bodies. Moreover, the project does not create new impervious area. Generally, the existing drainage patterns and flow paths will not be altered as a result of the proposed improvements along Highway 101, however, the proposed project will improve several of the existing drainage facilities in order to promote positive drainage conditions and ultimately improve water quality. These improvements include the construction of curb and gutters, cross gutters, storm drain inlets, and adjusting existing catch basin inlets to grade. In order to reduce erosion, and resulting runoff turbidity, as well as reduce flows entering the San Elijo State Beach

campground the majority of the roadway flows will be collected in gutters, curb inlets and catch basins and discharged into existing piped storm drain systems. The bike path paved area will continue to drain towards landscaped areas surrounding the campground, however the curb and gutter along the bike path will collect runoff from the street for that area south of the campground entrance and discharge it to an existing piped storm drain system which flows easterly toward an existing concrete lined channel. The proposed project has been sited and designed to effectively carry the runoff associated with large storm events to an outlet point and prevent any severe ponding and flooding from occurring. Additionally, based on the 100 year storm analysis included in the Hydrologic Analysis prepared for the project (Appendix A of the WQAR), this project will not increase the storm water discharge downstream after the construction of the project. The proposed project also won't significantly change any drainage patterns or quantities since the project does not increase impervious area and runoff is still discharged into existing storm drain systems or nearby landscaping. Furthermore, the project includes provisions for pet waste bag dispensers and trash cans, to be located in visually unobtrusive areas, which will reduce the potential for pet wastes, especially those from dog walking, to enter stormwater and add a component of bacterial or chemical pollution therefrom.

Due to the geologic risk of changing drainage patterns in a potentially unstable bluff environment, with some known locations where erosion has occurred in the past, it is recommended not to change drainage patterns and to use existing inlets as proposed. Additionally, as the project is proposed only to repurpose, for bike and pedestrian use, existing impervious surfaces, and therefore not creating any new roadway surfaces, no new pollutants would be introduced into the hydrologic system. Potential increased usage of the corridor by non-motorized users could increase litter and pet waste, and that such materials could contribute to degradation of a stormwater runoff quality. As mentioned above, the project proposes installation of strategically located pet waste bag dispensers and trash cans in order to reduce the amount of pet waste and litter entering receiving waters.

Conversely, an east side alignment of this CRT segment, inland of the existing railroad tracks, would necessitate site modifications to address existing drainage and water quality issues. Specifically, the east side alignment would require improving existing drainage facilities in order to promote positive drainage conditions and for general safety concerns. The east side alignment would require 2,000 cubic yards of cut and 1,500 cubic yards of fill, resulting in significant landform alteration. The drainage improvements needed to accommodate the east side CRT alignment would necessitate significant landform alteration and include the reconstruction of two large storm drain inlets near Cornish Drive, installation of under drain storm drain system for pervious paver areas, and provision of low-flow bypass systems to safely convey runoff across the proposed pathway. Additionally, in order to prevent future erosion from runoff from an east side alignment, rip rap and drainage structures would need to be installed at Verdi Avenue and Montgomery Avenue to decrease run-off velocities and to convey flows nuisance flow from small storm events underneath the bike path while larger storms will flow over the bike path. This would significantly alter natural drainage patterns in this area. For the east side project design, the drainage system improvements are estimated to cost would cost approximately \$1.23M, which is 27 percent of the estimated total project cost.

The proposed west side alignment does not have these drainage or water quality concerns because improvements will be located within the existing developed transportation corridor of Coast Highway. No additional impervious areas will be added to Highway 101 as part of the proposed project and the paved CRT segment will direct stormwater runoff to adjacent vegetated areas or be hydraulically disconnected from the roadway. Therefore, the proposed project would not contribute to cumulative adverse water quality impacts when considered in combination with other past, present, and reasonably foreseeable projects in the project area. The reconfigured and re-paved impervious surfaces from the pedestrian and bike path improvements are not expected to generate pollutants. The WQAR includes avoidance and minimization measures, **per IM 5.4.16**, such as preservation of existing vegetation and landscape protection areas. All impacted and graded, or exposed surfaces and cut slopes will be treated with erosion control (bonded fiber with no seed) after construction is completed. Fiber rolls used as part of the project will not introduce any plastic debris into the project area. Permanent landscaping with a California native plant palette in accordance with **IM 5.5.1** will be provided. All water quality protection and improvement strategies outlined in the Storm Water Data Report (SWDR) will be maintained for the life of the project pursuant to **DDS 26** and **IM 5.4.17**. In accordance with **IM 5.4.2**, maintenance BMPs will be implemented to reduce the amount of pollutants discharged into surface waters, including but not limited to, trash and litter removal, road sweeping, and control of chemical use in herbicide, pesticide and fertilizer applications.

The conceptual Stormwater Pollution Prevention Plan (SWPPP) prepared for the project identifies construction BMPs that will be implemented to reduce pollutants in stormwater discharges and eliminate non-stormwater discharges during the construction phase of the project in accordance with **DDS 4**. Additionally, pursuant to **DDS 5**, the conceptual SWPPP also includes a spill prevention and emergency response plan. Demolition, staging, material and equipment storage, fueling and debris/excess graded materials handling (excess graded materials are not anticipated) are addressed in the conceptual SWPPP.

Further, as required by **IM 5.4.1**, **IM 5.4.6** and **IM 5.4.7**, construction BMPs will be implemented according to applicable BMP Manuals and will include temporary soil stabilization, temporary sediment control, wind erosion control, tracking control, non-storm water management, and waste management and materials pollution control. Plastic netting will be avoided in permanent applications. Additionally, the construction and staging plans ensure that the project will preserve existing vegetation outside the work areas, stabilize slopes, and keep the total paved area to a minimum per **IM 5.4.5**.

A Phase I Environmental Assessment was prepared on August 27, 2015 by Advanced GeoEnvironmental, Inc. for the eastern alignment of the CRT, located on the inland side of the existing railroad corridor to determine if the soil or groundwater along the planned bikeway route has been negatively impacted by the use, storage, or release of hazardous materials. On November 3, 2016 Advanced GeoEnvironmental, Inc. confirmed that the western alignment, proposed in this NOID submittal, lies within the area included as part of their Phase I Environmental Assessment. As such, Advanced GeoEnvironmental, Inc. determined that the findings in the August 27, 2015 Phase I would be valid for the currently proposed west side alignment of the CRT and no soil or groundwater contamination was identified that could cause impacts to marine resources and water quality. The Phase 1 Environmental Assessment found

that there are no wetlands or other natural hydrological features are present within the proposed CRT alignment; however, the Phase I Environmental Assessment found that the southern section of the eastern CRT alignment is located within a National Wetlands Inventory.

Therefore, the project incorporates design/development strategies and implementation measures included in Section 5.4.3 of the NCC PWP/TREP regarding protection of marine resources and water quality and is consistent with the marine resource policies and water quality protection policies of the NCC PWP/TREP.

5.5 Policy Consistency Analysis – Environmentally Sensitive Habitat Areas and Special Status Species

The Coastal Act contains policies which require the protection of Environmentally Sensitive Habitat Areas.

Coastal Act Section 30240

- a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.
- b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

Coastal Act Section 30107.5

“Environmentally sensitive area” means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments

Caltrans and SANDAG are also implementing the following policy, design and development strategies (DDS), and implementation measures (IM) to ensure that improvements are designed, implemented, and maintained to provide for the protection of ESHAs and special-status species.

Policy 5.5.1: Development of NCC transportation facility and community enhancement projects shall be sited and designed to ensure that ESHAs are protected against any significant disruption of habitat values. Development in areas adjacent to ESHAs shall be sited and designed to prevent impacts that would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

DDS 1: The Project-level analysis for potential impacts of new transportation improvements and associated community and resource enhancements improvements on ESHAs and special-status species shall be conducted and subject to review during subsequent project-specific Federal Consistency, NOID, or Coastal Development Permit Reviews to assess and identify all potential permanent or temporary impacts to ESHAs and special-status species and appropriate mitigation measures to ensure project consistency with Coastal Act Section 30240.

DDS 2: Habitat Mitigation and Monitoring Plans (HMMP) will be prepared for mitigation areas and will specify the design and implementation of biological resources mitigation measures, including habitat replacement and revegetation, protection during construction, performance (growth) standards, maintenance criteria, and monitoring requirements. The REMP Working Group would review and approve draft HMMPs prior to NOID or coastal development permit submittal. The primary goal of an HMMP is to ensure the long-term perpetuation of the existing diversity of habitats in the project area and adjacent urban interface zones.

DDS 3: Impact reduction measures for sensitive coastal upland and wetland habitats shall include construction monitoring and shall fully mitigate impacts pursuant to the REMP detailed in Chapter 6B as it relates to no net loss of habitat, habitat preservation, and comprehensive lagoon restoration program mitigation.

DDS 4: Mitigation measures for sensitive vegetation communities and rare plants shall include, but shall not be limited to, preconstruction focused surveys, construction monitoring, relocation of plants, seed collection, plant propagation, and salvaging of plant species to a suitable mitigation site. Prior to construction, focused surveys shall be conducted for sensitive plant species. Locations of sensitive plant species observed shall be mapped on construction drawings. Research must be conducted on appropriate methods to use on a species-by-species basis. Some plant species may require transplantation, whereas others may germinate from seed, and still others may need to be propagated in a greenhouse prior to planting on an appropriate mitigation site.

DDS 5: During construction, specific measures for weed control shall be developed to minimize or prevent the spread of weeds. Preventative measures during construction could include identifying areas with existing weed problems and controlling traffic moving out of those areas (e.g., cleaning of construction vehicles, limitations of movement of fill).

DDS 6: Mitigation measures for sensitive wildlife species may include, but not be limited to, preconstruction focused surveys, construction monitoring, and the restoration of suitable breeding and foraging habitat as established in the REMP. Prior to construction, focused surveys would be conducted for sensitive wildlife species, with locations of sensitive wildlife species observed mapped on construction drawings. Vegetation clearing prior to onset of construction impacts may be implemented to minimize the wildlife use of areas slated for construction, and thereby minimize indirect and direct impacts to wildlife species. The clearing and grubbing of native wetland, riparian, and/or upland habitats shall occur outside of the breeding seasons for nesting birds to avoid impacts to sensitive species. All native or sensitive habitats outside and adjacent to the permanent and temporary construction limits shall be temporarily fenced during construction with orange plastic snow fence, orange silt fencing, or in areas of flowing water, with stakes and flagging. No personnel, equipment or debris shall be allowed within these areas. Temporary construction fencing and markers shall be maintained in good repair until the completion of each phase of project construction and removed upon completion of each project phase.

DDS 7: As Wildlife crossings shall be of a design, shape and size to be sufficiently attractive to encourage wildlife use. Overcrossings and undercrossings for wildlife shall be appropriately vegetated to afford cover, fenced as needed to promote directional movement through the corridor, and other species requirements. Functional corridors shall be established to provide connectivity to protected land zoned for uses that provide wildlife permeability.

DDS 8: To minimize impacts to migratory birds dependent on lagoons for stop over, resting, and foraging habitats along the Pacific flyway, PWP/TREP infrastructure construction activities shall not occur in more than two lagoons at any one time.

DDS 9: A project-specific biological evaluation of the development area shall be conducted for all improvements proposed in areas where ESHA and special status species may occur and shall be submitted with the project-specific submittal package. The evaluation shall include any changed site conditions that could affect ESHA values or special-status species protected by the PWP/TREP. A biological evaluation shall be completed in the proposed development area (i.e., the proposed development footprint and a surrounding 100-foot buffer area). Should ESHAs and/or special-status species be identified during this process that are not already considered in the PWP/TREP, all ESHA and/or special-status species resource protection measures included in this PWP/TREP shall be applied to the newly identified resources. For any newly identified ESHA, an appropriate buffer shall be established, based on site-specific conditions in accordance with Implementation Measure 5.5.9.

Implementation Measure 5.5.1: The following conservation measures shall be implemented during construction for all new transportation improvements and associated community and resource enhancements to minimize impacts to sensitive communities as identified in Figure 5.5-1A through Figure 5.5-6B:

- All native habitats outside the permanent and temporary construction limits shall be temporarily fenced during construction with orange snow fence and no access will be allowed.
- Cut slopes would be revegetated with native upland habitats with similar composition to those within the project limits. Fill slopes and areas adjacent to wetlands and drainages would be revegetated with appropriate native upland and wetland species. The revegetated areas would have temporary irrigation and be planted with native container plants and seeds selected by the biologist. There would be at least three years of plant establishment/maintenance on these slopes to control invasive weeds and ensure that the plants become established, and review of these revegetation efforts would be included in the REMP reports submitted to the Coastal Commission. Success criteria for plant establishment would be included in any revegetation plan submitted for cut slopes and areas of temporary impacts. Bios wales and detention basins would be planted with appropriate native species as determined by the biologist and storm water personnel.
- Landscaping plans shall include only species native to southern California such that the proposed planted areas will be compatible with surrounding natural and manmade areas. No plant species listed as problematic or invasive by the California Native Plant Society (<http://www.CNPS.org/>), the California Invasive Plant Council (<http://www.cal-ipc.org/>), or as may be identified from time to time by the State of California shall be employed or allowed to naturalize or persist on the site. No plant species listed as a “noxious weed” by the State of California or the U.S. Federal Government shall be utilized within the property.
- Any seeding of native upland habitats would be completed between October and February to ensure that the seed has proper conditions for germination.
- Top soil from areas with coastal sage scrub, maritime succulent scrub, and maritime chaparral that do not have high weedy species would be stockpiled and used during the revegetation effort to aid in revegetating the slopes with native habitats.
- All temporary impact areas would be revegetated and restored to pre-existing conditions.

Implementation Measure 5.5.2: Seeds shall be collected or plants shall be salvaged to the extent practicable in the impact areas for all new transportation improvements and associated community and resource enhancement projects. Salvaged plants and seed shall be planted in mitigation sites, on revegetated new slopes, or in revegetated areas that were temporarily impacted.

Implementation Measure 5.5.3: All efforts shall be made to eradicate invasive plant species. During project construction, all invasive species included on National Invasive Species Management Plan, the State of California Noxious Weed List, and the California Invasive Plant Council's (Cal-IPC) Invasive Plant Inventory list found growing within the project right-of-way would be removed. Weed removal would be conducted within the project right-of-way at least once per year during the construction period. Revegetated slopes would be kept weed free to prevent any invasive weed species from reinvading the slopes. Measures shall be implemented to avoid the transporting, use and disposing of soils with invasive weed seeds, such as inspection and cleaning of construction equipment, use of eradication strategies, and washing all heavy equipment prior to entering any lagoon area, to minimize the spread of invasive weeds. All weedy vegetation removed during construction would be properly disposed of to prevent spread into areas outside of the construction area.

Implementation Measure 5.5.4: To minimize impacts to nesting migratory bird species, all native vegetation and non-native shrubs and trees within the impact areas shall be removed outside of the breeding season (February 15 to September 15), if possible. Otherwise, a qualified biologist shall thoroughly survey all vegetation prior to removal to ensure there are no nesting birds on-site. If nesting birds are identified on-site, vegetation removal shall be delayed and an appropriate buffer established, until the chicks have fledged or the nest has failed.

Implementation Measure 5.5.5: Future bridges shall be designed to be bat friendly.

Implementation Measure 5.5.6: Exclusion devices shall be installed on bridge drain holes and ledges during the non-breeding season (September 1 through February 15) to stop swallows, swifts, and any other birds or bats from nesting on or within bridges to be demolished.

Implementation Measure 5.5.7: Impacts to Del Mar Manzanita shall be mitigated by salvaging individual plants from the affected area and planting them in a compensatory mitigation site for the project.

Implementation Measure 5.5.8: Implementation Measure 5.5.8: The following mitigation measures shall be implemented for all new transportation and associated community and resource enhancement projects to minimize impacts to wildlife species during construction.

- A channel large enough to maintain hydrologic function/connectivity and for fish passage would be kept open throughout construction within the San Luis Rey River and all of the lagoons.
- All pile driving near the lagoons would be completed outside the bird breeding season (February 15-September 15) to minimize construction noise impacts to bird species around the lagoons, if feasible.
- If pile driving near the lagoons is necessary during the bird breeding season, the following mitigation measures shall be required from February 15 through September 15:
 - Pre-construction bird surveys will be completed to document the location of occupied areas;
 - A biologist knowledgeable in the specific nesting bird species will be present to monitor bird reactions to noise when pile driving begins and throughout pile driving activities to ensure that listed avian species are not being disturbed. The biologist shall halt work if birds are startling off nests in response to the impact of a pile driving hammer and consult with USFWS prior to continuing with any pile driving activities;
 - Pile driving will be conducted with a vibratory hammer to reduce construction noise and concussive pressure waves whenever possible;
 - An impact hammer may be used to proof the piles only if it is infeasible to use a vibratory hammer, and monitoring demonstrates that noise levels in areas occupied by individual nesting of Coastal California gnatcatcher, Ridgway's rail, or other listed avian species will remain below 80 dBA 1-hour Leq;
 - Noise attenuation measures (e.g., cofferdams and/or a shroud of blankets around the driving hammer) will be implemented to reduce pile driving noise;
 - No pile driving would be allowed within 600 feet of documented nesting colonies of California least tern and/or western snowy plover; and

- If pile driving or general construction takes place within 2000 feet of a documented nesting colony of California least tern and/or western snowy plover, noise levels shall remain below 72 dBA 1-hour Leq and below a maximum of 78 dBA.
- Pile driving for bridge construction near the San Luis Rey River will be completed between September 16 and February 14.
- If pile-driving takes place in or adjacent to lagoon waters greater than 1 meter in depth, there shall be a hydroacoustic monitoring plan to avoid injury to fish or marine mammals from high levels of underwater sound. The plan shall take into consideration both peak and cumulative exposure to sound. The plan shall include provisions for stopping pile driving if Caltrans dual criteria for injury to fish are exceeded (206 dB peak or 187 dB accumulated sound exposure level).
- During in-water bridge construction activities at all lagoons, bubble curtains, cofferdams or other methods to minimize acoustical impacts to aquatic and avian species would be implemented. If feasible, a hydraulic driver shall be used to further reduce noise levels. These measures would be developed in conjunction with the resource agencies when the project design and construction methodology is further developed.
- A qualified biologist would be made available for both the preconstruction and construction phases to review grading plans, address protection of sensitive biological resources, and monitor ongoing work. In cooperation with the biologist, an acoustic specialist will monitor pile driving noise levels. The biologist should be familiar with the habitats, plants, and wildlife of the project area, and maintain communications with the resident engineer and acoustic specialist, to ensure that issues relating to biological resources are appropriately and lawfully managed.
- Detention basins would be placed in many of the loop ramps, and bioswales would be placed on many of the slopes to treat runoff from the freeway.
- Lighting used at night for construction would be shielded away from ESHAs.
- Dust generated by proposed operations would be controlled with BMPs.

Any modifications to these mitigation measures shall only be considered after consultation and approval from the appropriate resource agency (e.g., USFWS for birds, NMFS for fish and marine mammals) and/or the REMP working group.

Implementation Measure 5.5.9: Where Buffers/setbacks for ESHAs delineated at the time of PWP/TREP certification shall be maintained, unless reduced ESHA buffers/setbacks are authorized pursuant to the NOID and/or Public Works Plan Amendment procedures contained in Chapter 6A. For any new ESHAs identified and delineated pursuant to Design/Development Strategy 9, development shall be sited and designed to minimize ESHAs impacts, appropriate buffers/setbacks provided based on a site-specific biological evaluation confirming the buffers/setbacks are adequate to avoid or minimize significant adverse impacts to ESHA.

Implementation Measure 5.5.10: NOID or Coastal Development Permit submittals for native upland habitat establishment, restoration and/or enhancement plans proposed in accordance with the REMP detailed in Chapter 6B shall include the following information and materials:

- Clearly stated objectives and goals for the habitat establishment, restoration and/or enhancement plans.

- Baseline data regarding the biological, physical, and chemical criteria for the establishment, restoration and/or enhancement site.
- Documentation demonstrating that the proposed establishment, restoration, or enhancement project will continue to function over the long term.
- Technical detail in the project design including, at a minimum, an engineered grading plan and water control structures, methods for conserving or stockpiling topsoil, a planting program including removal of exotic species, a list of all species to be planted, sources of seeds or plants, timing of planting, plant locations and elevations on the mitigation site base map, and maintenance techniques.
- Documentation of performance standards, which provide a mechanism for making adjustments to the establishment, restoration or enhancement site when it is determined through monitoring that the enhancement or restoration techniques are not successful.
- Description of management and maintenance requirements, and provisions for remediation should the need arise.
- An implementation plan that demonstrates there is sufficient scientific expertise, supervision, and financial resources to carry out the proposed activities.
- A monitoring program to be implemented for 5 to 10 years after completion of the habitat establishment, restoration or enhancement project with appropriate provisions to ensure the project has successfully met the stated goals and long-term objectives, such as a permanent restrictive covenant to be recorded over the mitigation area.

Policy Consistency Summary Analysis

Coastal Act Section 30240 allows only resource-dependent uses in ESHAs and requires new development adjacent to ESHA to be compatible with the continuance of the ESHA and to be sited and designed to prevent impacts that would significantly degrade the ESHA. Similarly, **PWP/TREP Policy 5.5.1** requires development of NCC transportation facility and community enhancement projects to be sited and designed to ensure that ESHAs are protected against any significant disruption of habitat values and to prevent impacts that would significantly degrade those areas, and requires development to be compatible with the continuance of those habitat areas.

The proposed Coastal Rail Trail (CRT) project has been sited and designed to avoid all impacts to ESHA. The proposed project would occur within the existing developed paved area of Coast Highway 101. As part of the 44-mile Coastal Rail Trail (CRT) regional bikeway system, the project consists of the construction of approximately 1.3 miles of Class I bicycle facility along the west side of Coast Highway 101 for both pedestrians and bicyclists that will be approximately 14 to 16 feet in width and separated from existing parking by concrete median of approximately 3 feet in width. In addition to the Class I shared-use path, the roadway would be restriped with continuous buffered bike lanes, providing wide bike lanes in both directions. The proposed project would not result in any impacts to ESHA, as all of the work would occur within the previously developed and paved roadway. The Phase I Environmental Assessment was prepared by Advanced GeoEnvironmental, Inc. on August 27, 2015 and update report, prepared on November 3, 2016, evaluated environmental conditions and no habitat was found to be located within the proposed alignment because it is an existing developed paved roadway.

All efforts will be made to eradicate any invasive plant species (**IM 5.5.3 and DDS 5**) within the construction limits and any native habitats located outside the construction limits would be temporarily fenced during construction (**IM 5.5.1**). Construction of the new bike and pedestrian coastal rail trail segment will not require the removal of non-native ground cover and shrubs. All impacted and graded, or exposed surfaces and cut slopes will be treated with erosion control (bonded fiber with no seed) after construction is completed. Permanent landscaping with a California native plant palette in accordance with **IM 5.5.1** will be provided.

Additionally, in accordance with **IM 5.5.4**, to minimize impacts to nesting migratory bird species, all non-native shrubs and trees within the construction limits, if any, shall be removed outside of the breeding season (between September 16 and February 14) to the extent feasible. If any non-native shrubs and trees will be removed between February 15 and September 16, then a qualified biologist will survey the vegetation to be removed for the presence of active nests. If active nests are identified, vegetation removal shall be delayed and an appropriate buffer established by the qualified biologist, until the chicks have fledged or the nest has failed. Additionally, lighting used at night for construction, if any, will be shielded away from any natural areas near the project site in compliance with **IM 5.5.6**.

In conclusion, the proposed project consists of construction of a segment of the Coastal Rail Trail within the existing paved developed area of Coast Highway 101. The project would not result in any impacts to ESHA or any special-status species habitats. Further, as described above, the project is consistent with Coastal Act Section 30240 all of the required PWP/TREP policies, design and development strategies, and implementation measures that will serve to avoid or minimize, and mitigate potential impacts to ESHAs and special-status species.

Policy Consistency Analysis – 5.7 Visual Resources

The Coastal Act contains policies that require development to be sited and designed to protect scenic resources and to be visually compatible with the character of the area.

Coastal Act Section 30251

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

The following policy, design and development strategies (DDS), and implementation measures (IM) are required to ensure that improvements are sited and designed to protect public views to significant coastal resources:

Policy 5.7.1: Development of NCC transportation facility and community enhancement projects shall be sited and designed in a manner that protects, to the maximum extent feasible, public views to significant coastal resources, including views of the ocean and coastline, coastal lagoons and river valleys, and significant open space areas. New development shall be sited and designed to be compatible with existing development and surrounding areas such that the impacts of grading, operational activities and direct lighting on public views outside of the transportation facilities and community enhancement improvements are limited to the maximum extent feasible.

DDS 1: Development of transportation facility projects shall be sited and designed such that the impacts of grading, operational activities and direct light on public views outside of the transportation facilities are limited to the maximum extent feasible.

DDS 2: Project-level analysis for potential visual resource impacts of transportation improvements shall confirm that proposed improvements will minimize substantial impacts to coastal visual resources including public view corridors, community, and environmental aesthetics. Should project-level analysis find that previously unidentified, substantial permanent or temporary impacts to visual resources will result from proposed improvements, additional avoidance and mitigation measures to ensure project consistency with applicable Coastal Act visual resource policies shall be identified during future, project-specific federal consistency review.

DDS 3: NOID and/or project-specific federal consistency review submittals for individual highway, rail, transit, and community enhancement projects shall identify all potential visual resource impacts of project implementation, as addressed by Policy 5.7.1, and detail the type and location of visual mitigation elements included in the project. NOID submittals for highway projects shall include architectural and landscape mitigation requirements, as provided in Implementation Measure 5.7.1, as applicable, which avoid and/or minimize potential coastal visual resource impacts. NOID submittals including community enhancement projects shall include the cooperative maintenance agreement with the affected city.

DDS 4: Appropriate types of fencing shall be considered in the development of the final project designs and shall include use of see-through bridge rails and visually permeable fencing, where appropriate, including consideration of noise impacts on wildlife, and low-profile safety barriers between pedestrian and transportation uses, where necessary and feasible.

DDS 5: Design solutions shall be considered in the development of the final project designs to integrate transportation infrastructure into existing landscapes and enhance project appearance to minimize visual impacts. Where feasible, design solutions may include, but not be limited to:

- Grading shall be designed to minimize landform alteration and removal of significant vegetation. Grading and ground disturbance shall be the minimum necessary to construct proposed improvements.
- The design of proposed replacement bridges across the lagoons shall be carefully evaluated for its mitigation potential for visual impacts, by providing reduced support structures as compared to the existing bridges.
- Where at-grade or depressed route segments pass through or along the edge of residential areas or heavily traveled roadways, landscape treatments such as trees, shrubs, and groundcover could be installed along the edge of the right-of-way to provide partial screening and to visually integrate the right-of-way into the surrounding context provided that the subject landscaping does not block existing public coastal views.
- Night lighting shall be the minimum required for operations and safety and shall be excluded from viewsheds containing scenic resources, including at lagoon crossings, wherever feasible. All lights shall be shielded and directed downward to the target area to minimize spill-over. All lights shall be of appropriate Kelvin temperatures that will minimize biological impacts in adjacent natural areas. New and replacement facility lighting shall use updated, energy efficient lighting that is better directed to avoid or minimize visual impacts and nighttime glare.
- Areas that are disturbed by cut, fill or grading shall be seeded or planted, such that these areas will blend with the surrounding vegetated areas. Landscaping plans shall include only species native to Southern California such that the proposed planted areas will be compatible with surrounding natural and manmade areas. Native vegetation shall be placed in appropriate locations and densities consistent with adjacent natural settings. Appropriate native species shall also be used adjacent to developed and landscaped areas; however, steep areas of cut in rock may not be able to support plants.
- Review of local urban design plans and policies shall be conducted to take into account local design objectives. The analyses shall provide a basis for considering specific design measures that would modify the impacts of the project in ways that would make the project design more consistent with local urban design goals.

Implementation Measure 5.7.1: Visual resource mitigation elements for highway and community enhancement project impacts shall incorporate the following visual design features, as appropriate, for specific project features to ensure substantial visual resource impacts from project construction are avoided or minimized to the extent possible. NOID submittals shall detail the type and location of visual mitigation elements included in the project design in accordance with the approved *I-5 NCC Project Design Guidelines* (Appendix C of the PWP/TREP) and the information contained therein as a compilation of allowable design templates and landscaping for associated improvements including, but not limited to bridges, interchanges, retaining walls, etc., and shall include, as appropriate:

- **Sound Barriers**
 - Soundwall setbacks, landscape buffers and/or planting pockets
 - Soundwall articulated layout/varied profile

- Transparent soundwalls on private property
- Translucent soundwall panels on Caltrans property
- Architectural detailing
- **Retaining Walls**
 - Retaining wall setbacks, landscape buffers and/or planting pockets
 - Terrain-contoured retaining walls in cut sections
 - Terraced retaining walls
 - Mid-Slope retaining walls in cut sections
 - Top-of-Slope retaining walls in fill sections
 - Viaduct retaining walls
 - Enhanced safety railings
 - Architectural surface treatment
 - Low Profile and See-Through Safety Barriers
- **Overcrossings, Bridges, Undercrossings and Direct Access Ramps**
 - Terrain-contoured walls with landscaped buffers and/or architectural treatment, where appropriate and feasible.
 - Enhanced slope paving (color, texture, materials, etc.)
 - See-through bridge rails, where appropriate including consideration of noise impacts on wildlife.
 - Enhanced sidewalks (patterns, color, textures, etc.).
 - Low profile safety barriers between pedestrian and vehicular traffic, where necessary and feasible.
 - Enhanced pedestrian lighting, fencing, railing, container trees, and other urban amenities, designed consistent with local design guidelines, where feasible and where the responsible local agency has requested them and agreed to maintain them in perpetuity.
- **Highway Interchanges**
 - Street trees, pedestrian lighting, landscaped parkways, enhanced sidewalk paving where feasible and where the responsible local agency has requested them and agreed to maintain them in perpetuity.
 - Urban design features such as benches, bollards, directional signage, and trash receptacles where feasible and where the responsible local agency has requested them and agreed to maintain them in perpetuity.
 - Bicycle facilities designed consistent with the San Diego Regional Bike Plan, applicable local standards, and local jurisdiction circulation element goals, wherever possible.

- Enhanced interchange landscaping and entry features where feasible and where the responsible local agency has agreed to maintain them in perpetuity. Entry features shall be included as transitional visual elements into local communities where appropriate.
- **Highway Landscape – Corridor landscaping designed consistent with the corridor and with the character of adjacent community landscape.** At community gateway locations that are currently characterized by ornamental landscaping, highway landscaping with enhanced, native non-invasive, drought-tolerant trees, shrubs, and groundcover shall be installed. Throughout the remainder of the corridor, landscaping with native non-invasive drought-tolerant trees and shrubs shall be planted.
 - Native landscaping provided in all areas adjacent to native habitat, designed in consultation with the district biologist, and irrigated utilizing reclaimed water wherever possible.
 - Highway planters for replacement planting within the highway facility at the edge of shoulder, between concrete median and separator barriers, or between barriers and walls wherever the available width allows.
 - Median oleander preservation, replacement planting and maintenance. A median oleander replacement pilot project would be assessed concurrent with initial Express Lane construction to determine feasibility of use of native non-invasive trees and/or shrubs for maintenance and visual screening purposes.
 - Manufactured slopes designed to support planting and irrigation (including grading techniques such as slope rounding, slope sculpting, and variable gradients to approximate the appearance of natural topography).
 - The specific design of gateway features including height, size and color will be determined in consultation with the local agency and Coastal Commission during the design phase and pre-consultation meetings. Gateway features shall be of low scale and visually unobtrusive while communicating the local character of the gateway.
- **Local Frontage Roads –** In locations where highway widening brings traffic in close proximity to parallel local streets such as Ida Avenue in Solana Beach, Villa Cardiff Drive, Devonshire Drive, Orpheus Avenue, and Piraeus Street in Encinitas, Avenida Encinas in Carlsbad, and Brooks Street, Garfield Street, and Buena Street in Oceanside, landscape buffers shall be created between the highway and street, which may include elements such as street trees and shrubs, sidewalks, and solid screen walls with vines for access and graffiti control. Including some buffers may require local street widths to be adjusted. Implementing this measure is contingent on local agency approval and commitment to irrigate and maintain the landscape buffer in perpetuity. Landscaping plans shall include only species native to Southern California such that the proposed planted areas will be compatible with surrounding natural and manmade areas. The use of non-native plants, or plants not native to southern California (vines and street trees) would require concurrence with the Coastal Commission.
- **Lighting, Signage, and Miscellaneous Highway Appurtenances –** Typical lighting and signage standards (e.g., type, height, dimension, intensity and location, as applicable) are identified in Appendix B. Throughout the corridor, the following measures shall be applied and identified in project-specific NOID submittals:
 - Lighting and signage pedestals placed at pilasters or incorporated in other architectural features, where possible. Any metal poles shall be galvanized.
 - Concrete lighting and signage pedestals designed such that vertical barrier transitions are not required.
 - Overhead sign structures shall be a visually unobtrusive color.

- Signage with movable elements or self-illuminated features such as changeable message signs and freeway lighting shall be excluded from viewsheds containing scenic resources, including at lagoon crossings, wherever feasible.
- Bridge signage designed to be visually integrated with bridge architecture. Where the sign panel is attached to the bridge, the framing and back of the sign shall be an unobtrusive color or similar to the bridge color.
- Electrical and signal equipment at ramp termini placed in visually unobtrusive locations.
- Enhanced median barriers (color, texture, etc.).
- Enhanced gore paving (color, materials, etc.).
- Access control fencing placed in visually unobtrusive locations of interchanges and bridges where possible. It is recommended that the fencing be of special design and consist of enhanced materials where appropriate and maintained by the responsible local agency in perpetuity.
- Future technologies related to lighting, signage, and miscellaneous highway appurtenances (e.g., ITS and CCTV elements) shall be co-located wherever feasible, and shall be reviewed and incorporated within future project-specific NOID submittals.
- **Drainage and Water Quality Facilities**
 - Landscape screening of detention basins, where feasible.
 - Detention basins and bioswales designed to appear as natural landscape features such as dry streambeds or riparian pools.
 - Subterranean drainage or planted geo-reinforced drainage surfaces alternatives to concrete drainages adjacent to residential areas, where appropriate and feasible.
 - Concrete drainages, ditches and aprons located, designed, and colored to be unobtrusive in appearance.
 - Rock slope protection consisting of aesthetically pleasing whole material of various sizes.
 - Standpipes and other vertical appurtenances placed in unobtrusive locations, wherever feasible, and painted or stained an unobtrusive color.
 - Plantable soft-surface or segmented hard-surface alternatives to concrete ditches and rock slope protection in all project areas visible to the public, where feasible.
 - Pervious concrete used for interceptor ditches, inlet aprons, gutters, maintenance access roads, maintenance vehicle pullouts, and parking lots, where feasible.
 - Maintenance access drives for drainage and water quality facilities located in unobtrusive areas away from local streets and consisting of inert materials or herbaceous groundcover that is visually compatible with the surrounding landscape.

Implementation Measure 5.7.2: Affected local jurisdictions shall be provided the opportunity to participate in the review of final design plans for project-specific improvements located within their jurisdiction as part of future NOID submittals in accordance with the process and procedures specified in Chapter 6A of the PWP/TREP.

Implementation Measure 5.7.3: Early pre-consultation with the Coastal Commission, and affected local jurisdictions upon request, shall occur at the earliest feasible time when an adequate level of design detail is available (generally at 30% Design) to provide for adequate review and comment periods to identify and incorporate appropriate visual mitigation elements identified in Implementation Measure 5.7.1 and pursuant to the adopted *I-5 NCC Project Design Guidelines* (Appendix C of the PWP/TREP). Design of freeway project features shall be done in consultation with affected local agencies with the understanding that Caltrans policy and procedures regarding issues such as safety, operations, maintenance and cost will prevail.

Policy Consistency Analysis

Coastal Act Section 30251 provides for the protection of scenic and visual resources within the Coastal Zone. Additionally, PWP/TREP Policy 5.7.1 provides that development of NCC transportation projects and community enhancements shall be sited and designed to protect public views to significant coastal resources to the maximum extent feasible, including views of the ocean and coastline, coastal lagoons, and significant open space areas. Policy 5.7.1 requires new development to be sited and designed to be compatible with existing development and surrounding areas such that the impacts of grading, operational activities, and direct lighting on public views are limited to the maximum extent feasible. The proposed project has been designed in compliance with PWP/TREP design/development strategies and implementation measures to be visually compatible with the character of the corridor.

Visual resources within the project include public views of natural coastal landforms adjacent to Highway 101, including the Pacific Ocean and surrounding natural coastal topography. The proposed west side CRT alignment will provide enhanced access to the expansive ocean views along the majority of its length. The proposed project would occur within a previously improved and developed area within Coast Highway 101. As part of the 44-mile Coastal Rail Trail (CRT) regional bikeway system, the project consists of the construction of an approximately 1.3 miles of Class I bicycle facility along the west side of Coast Highway 101 for both pedestrians and bicyclists which will be of approximately 14 to 16 feet in width and separated from existing parking by concrete median of approximately 3 feet in width. In addition to the Class I shared-use path, the roadway would be restriped with continuous buffered bike lanes, providing wide bike lanes in both directions. The project will include three overhead safety light as well as visually permeable safety fence segments to prevent falls from the bluffs. Such fencing will be approximately 42-inches in height and will be constructed of wooden or galvanized steel posts with a Natina coating and similarly coated galvanized steel cables. The locations of the proposed fence sections correspond to those areas identified as having the steepest drop offs and presenting the greatest public safety hazards. The fence sections comprise about 1,200 feet of the 2,000 foot portion of the project adjacent to the steep bluffs north of the San Elijo State Beach North Day Use Parking Area. The proposed fencing is consistent with the character of the area and will not block or impede into any existing ocean views or scenic vistas. Please see visual simulations in Figures 5.7-1 and 5.7-2. The simulations show the project's preservation of existing scenic views.



Figure 5.7-1. Northbound view from bike lane.



Figure 5.7-2. Southbound view from path.

DDS 5 requires that night lighting shall be the minimum required for operations and safety, requires lighting to be excluded from viewsheds containing scenic resources, wherever feasible, requires lights to be shielded and directed downward to the target area to minimize spill-over, and requires lights to be of appropriate Kelvin temperatures that will minimize biological impacts, and requires replacement lighting to be energy efficient in order to minimize visual impacts and nighttime glare. The proposed lighting design includes three new, LED, overhead light fixtures, for the purpose of safety, at the following locations: Swamis Beach Park driveway, San Elijo State Beach North Day Use Area driveway, and the main San Elijo State Beach Campground driveway, where they intersect with the Class I path and Highway 101. The proposed lighting is consistent with the amended Appendix B Lighting Table and Lighting Standards within the NCC PWP. The proposed light fixtures will be downcast and shielded in a manner such that no direct light or glare leaves the project area, except as needed to provide illumination for the purpose of public safety as it pertains to areas of potential traffic conflict among people using the project facilities and motor vehicle traffic. The proposed lighting fixtures are not located within existing scenic ocean viewsheds.

The proposed landscaping plan consists of native, drought tolerant, species that will enhance the visual character of the project corridor and create a natural visual break between paved segments of the CRT. Two different native plant palettes will be used: a Diegan coastal sage scrub mix, consisting of native flowers and perennial bushes, as well as a parkway mix that includes drought tolerant natives. The proposed landscaping has been designed to be consistent with **DDS 5** to ensure that visual resources are protected and enhanced.

Project components including fencing, landscaping, signage, and lighting have been sited and designed in accordance with the required design/development strategies and implementation measures and will avoid and minimize visual impacts to the maximum extent feasible while enhancing community character. Design solutions that have been incorporated into the project, per **DDS 5**, include minimization of grading, landform alteration, and vegetation removal; landscape treatments, as well as updated shielded and directed lighting required for the safety of trail users. All project features have been designed to comply with applicable provisions of the approved I-5 NCC Project Design Guidelines design guidelines per **IM 5.7.1**.

The proposed project components, including the landscaping, signage, lighting and bike and pedestrian path design will improve the visual character of the existing project area and will function to highlight and enhance and improve access to existing ocean and coastal views. Overall, the proposed new bicycle and pedestrian facility has been designed to enhance community character and minimize impacts through integration of design features in accordance with **IM 5.7.1 and DDS 5**, including native landscaping, minimized landform alteration, and minimal, downcast and shielded night lighting.

IM 5.7.2 further requires affected local jurisdictions to be provided the opportunity to participate in the review of final design plans for project-specific improvements located within their jurisdiction. Early pre-consultation has occurred and is ongoing with the City of Encinitas in order to design the project.

SANDAG evaluated several alternative alignments for the proposed CRT segment, including an alignment partially within the railroad corridor on the east side of the tracks and within portions of San Elijo Avenue/Vulcan Avenue (east side or eastern alignment), and a west side alignment within the City's right-of-way (west side or proposed alignment) along Highway 101. SANDAG is moving forward with the proposed alignment after conducting a multi-year public process with substantial input on the alternatives from community residents, stakeholders, City staff, and City elected officials. The public process culminated in the Encinitas City Council formally endorsing the west side alignment for this section of the CRT. SANDAG has identified environmental and physical constraints associated with the east-side alignment, and is proposing the west side alignment that meets NCC PWP/TREP siting requirements allowing a location within 150 ft. from the LOSSAN right-of-way per NCC PWP/TREP Section 4.4.1.

The east side alignment alternative requires 2,000 cubic yards of cut and 1,500 cubic yards of fill, which would alter the existing natural topography and landscape of the rail corridor along San Elijo Avenue and Vulcan Avenue and would change the visual and community character of the area due to the east side alignment's replacement of existing informal trails and unimproved railroad property with a paved trail with a more formal appearance. This loss of the natural visual character associated with the east side alignment remains a significant concern of the community, and one for which numerous public comments against the project were made, and raises consistency issues with the visual resource and community character policies of the Coastal Act and NCC PWP/TREP.

The west side alignment uses approximately 400 cubic yards of fill which is distributed along the campground frontage in the 600 southernmost feet of the project area, where portions of the path are closer to the campground and the path is slightly higher than the existing path. In addition to it requiring significantly less alteration to landforms, the west side alignment would provide extensive enhancements to coastal access without the environmental and physical constraints of the east side alignment (related to water quality, landform alteration, and visual resources), and further, would not result in the impacts caused by removal of existing formal and informal parking spaces or the regularly utilized informal access pathways located on the east side alignment. As such, the west side alignment will ensure that existing coastal ocean views and vistas and community character are maintained throughout this scenic corridor.

In conclusion, the proposed project has been designed in compliance with PWP/TREP design/development strategies and implementation measures to be visually compatible with the character of the corridor. Therefore, the project is consistent with PWP/TREP Policy 5.7.1 and Sections 30251 and 30253(b) of the Coastal Act.

Policy Consistency Analysis – 5.8 Site Stability and Management

The Coastal Act contains numerous policies that address the need to ensure long-term stability and structural integrity, minimize risk, and avoid landform-altering devices.

Coastal Act Section 30253 (in part)

New development shall:

- (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.
- (b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

Coastal Act Section 30235

Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.

Coastal Act Section 30232

Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

Coastal Act Section 30236

Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.

Caltrans and SANDAG are also implementing the following policy, design and development strategies (DDS), and implementation measures (IM) to ensure that improvements are designed, implemented, and maintained to provide for maximum site stability and minimization of hazards:

Policy 5.8.1: All highway, rail, bicycle and pedestrian projects, and community and resource enhancement improvements shall be designed and implemented to minimize risks to life and property in areas of high geologic, flood, and fire hazard, and to minimize risk associated with potential hazardous materials release or spillage. Site-specific project design shall be based on the results of detailed (design-level) engineering geologic and geotechnical studies.

DDS 1: The requirements of the most current Standard Specifications for Caltrans and/or LOSSAN shall be applied to all proposed improvements to ensure that geotechnically stable slopes are planned and created. Seismic design for the structures shall be based on Seismic Design Criteria.

DDS 2: The potential for structural damage and resulting traffic hazard as a result of liquefaction shall be mitigated through site-specific methods such as ground modification methods (soil densification) to prevent liquefaction, or structural design (e.g., deep foundations) to accommodate/ resist the liquefiable zones.

DDS 3: The appropriate technical personnel shall be present during project construction of all improvements to observe cuts, foundation subgrade, and embankment subgrade to assure that all design-level provisions are enforced consistent with Caltrans Standard Plans and Specifications and SANDAG requirements. If unanticipated subsurface conditions are encountered, a geotechnical representative shall be notified to make additional recommendations to the resident engineer, who in turn, would direct the contractor to comply with Caltrans Standard Plans and Specifications and SANDAG requirements. Instrumentation for measuring settlement or slope distress, and periodic surveying for ground movement shall be included during construction in areas where the potential for ground movement or failure exists.

DDS 4: Project implementation shall include Storm Water Pollution Prevention Plans (SWPPP) and NPDES permit requirements. An SWPPP shall be developed and implemented during construction to reduce pollutants in storm water discharges and the potential for erosion and sedimentation. The SWPPP would include Best Management Practices (BMPs) to minimize potential short-term increases in sediment transport caused by construction, including erosion control requirements, stormwater management, and channel dewatering for all stream and lake/lagoon crossings. These may include measures to provide permeable surfaces where feasible and to retain and treat stormwater on-site using catch basins and treatment (filtering) wetlands, especially in areas around existing stations if the areal extent of surface parking is expanded or at new stations where new parking surface is constructed. Measures to manage the overall amount and quality of stormwater runoff to regional systems would be detailed as part of the SWPPP.

DDS 5: Where there is no practicable alternative to avoid construction in the floodplain, the footprint of facilities within the floodplain shall be minimized to the extent feasible (e.g., by use of aerial structures or tunnels), and floodplains impacted by construction shall be restored.

DDS 6: Shoreline armoring (internal to the lagoon) shall only be allowed to protect existing, legal structures, or where necessary to protect replacement structures across waterbodies, that are proven to be in danger from erosion, and where proposed to improve fish and wildlife habitat only if (a) less-environmentally damaging alternatives to armoring are not feasible (including relocation of endangered structures); and (b) the armoring has been sited, designed, and accompanied by feasible measures to proportionately mitigate any unavoidable negative coastal resource impacts (on views, sand supply, public access, etc.). The limitations of this measure shall not apply to minor runoff control/dissipater features where located and designed to convey and discharge runoff to waterways in a non-erosive manner.

DDS 7: As part of the future project-level analysis, all opportunities to minimize flooding risk and potential harm to or within the floodplain shall be assessed and incorporated into project design as applicable.

DDS 8: Analysis of how proposed improvements would contribute to total additional impervious surface and the subsequent potential additional impacts on surface runoff shall be conducted. This analysis shall also identify potential mitigation measures to minimize runoff and thereby reduce erosion, including on-site bioswales and retention facilities.

DDS 9: All soils proposed for disturbance for improvements shall be investigated for contamination and Phase I Environmental Site Assessments shall be prepared when necessary. When indicated by project-level Phase I Environmental Site Assessments, a Phase II Environmental Site Assessments (e.g., hydrogeologic investigation) shall be prepared to identify specific mitigation measures. The Phase II Environmental Site Assessments shall be prepared

in conformance with the ASTM Standards Related to the Phase II Environmental Site Assessment Process (E1903-01). Phase II Environmental Site Assessments mitigations shall be implemented as appropriate.

DDS 10: The potential impact of local sea level rise associated with global climate change shall be considered in the design and/or refurbishment of all corridor infrastructure. NOID, federal consistency review and coastal development permit submittals for proposed transportation, bike and pedestrian improvements that may be subject to internal shoreline/bank erosion, tidal inundation and flooding, shall include an analysis of improvement location and design in relation to projected future changes in sea level rise to ensure new development is located and designed to eliminate or minimize, to the maximum extent feasible, hazards associated with anticipated sea level rise over the expected design life of the structure (75 years).

DDS 11: The full range of projected sea level rise scenarios utilizing the best available science shall be considered during project-specific alternative design analysis. An analysis of future impacts of erosion related to sea level rise shall be conducted in areas where facilities would be expected to be exposed to storm surge and wave run up during their design life, or where applicable. Where feasible, projects shall be designed to accommodate the highest sea level rise projections at 2100, or beyond 2100 if the anticipated design life of the structure extends beyond this date, consistent with the following planning, design, and risk assessment criteria:

-Design

- a. Incorporate consideration of the risks posed by sea level rise into all decisions regarding project elements potentially affected by sea level rise; for the purposes of planning, consider a range of sea level rise scenarios for the years 2050 (2 feet) and 2100 (5.5 feet) in order to assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea level rise. Extrapolation of sea level rise projections beyond 2100 may eventually be necessary for bridges planned for replacement in future phases of the PWP/TREP to address their design lives.
- b. Use the ranges provided by the agreed upon best available science, which as of the 2014 date of adoption of the PWP/TREP, is from the NRC.
- c. For highway bridges the design life is 75 years.
- d. For rail bridges the design life is 100 years.
- e. The timeframe identified for a structure is important for sea level rise assessments and will affect the approach for assessing impacts. Up to the horizon year of 2050, there is better agreement among the various climate models for the amount of sea level rise that is likely to occur. After mid-century, projections of sea level rise become more uncertain, because the modeling results diverge and the sea level rise projections vary depending on multiple factors including the rates of glacial volume loss and reductions in greenhouse gas emissions. Therefore, for projects with timeframes beyond 2050, it is especially important to consider adaptive capacity, impacts, and risk tolerance to guide decisions of whether to use low, medium, or high sea level rise projections.
- f. Assess potential impacts and vulnerability over a range of sea level rise projections, including analysis of the highest sea level rise values presented in the NRC document, or as presented by the best available science existing at the time of the project combined with site-specific alternatives analysis.
- g. Based on the results of the alternatives analysis, the preliminary design shall:
 - 1) Accommodate the maximum sea level rise projection of 5.5 feet by 2100 if feasible; or

2) Be designed with adaptation strategies for a sea level rise rate that is as high as can be accommodated; where feasible; if the maximum project cannot be accommodated, adaptive strategies shall allow bridge structures and approaches to be raised in the future should the sea level rise projections occur; or

3) Be designed according to site-specific analysis of local conditions and needs, environmental impacts, and risks involved with closing bridges for very short time periods on an infrequent basis; should facilities be at risk during certain frequency events, the facilities shall be designed to ensure functionality once the event is over.

h. Design parameter decisions shall consider and balance expenditure of public funds and environmental constraints, level of risk and potential consequences. Risk assessment shall consider life expectancy of facility, construction timeframe, availability of alternative routes, and potential level of delay, evacuations/emergencies, and importance as interstate facility (see Caltrans guidelines).

i. Typically rail or highway bridges will be constructed on piles. Consequently, bridge columns will not be subject to flood or tsunami scour and therefore slope protection around the columns will not be required. Abutments however may require slope protection to address flood or tsunami scour. The specifics of the slope protection design shall be site-specific and subject to projected scour velocities and final bridge design.

-Site Specific Design Sea Level Rise Analysis- As the PWP/TREP will be implemented over a 40-year period, for those bridges in the later phases of the PWP/TREP Phasing Plan (beyond Phase 1) the effect of sea level rise shall be reassessed based on updated information from the NRC, or the best agreed upon available science, at the time of the project-specific NOID, Federal Consistency Certification, or Coastal Development Permit, and shall include the following:

a. Establish a range of future regional/local relative mean sea level change projections that is consistent with the latest scientific information on regional/local sea level, and land subsidence and uplift. This can be done by either updating the San Diego Region Coastal Sea Level Rise Analysis Report (Appendix D) to the current scientific estimates, or following the steps listed below:

1) Review the latest scientific literature on global/regional mean sea level rise to identify the most relevant scientific information for the project area.

2) Review the latest governmental guidance related to global/regional mean sea level rise from federal, state, and local agencies with regulatory responsibilities for the project.

3) Establish a range of future global/regional mean sea level rise projections that is consistent with the most relevant scientific information and governmental agency guidance from Steps "a" and "b" above, respectively.

4) Review the latest scientific literature on regional/local land subsidence and uplift to better assess how land elevations relative to sea level elevations may change over the life of the project.

b. For bridges and embankments located far enough from the ocean such that ocean waves do not directly impact structures, the high water level to be used for design is controlled by the fluvial process. The high water level can be established by conducting fluvial hydraulic modeling using design storm events (e.g., 50-year and 100-year flows) at the upstream boundary and a high water level at the downstream boundary (e.g., Mean Higher High Water or the 50-year ocean water level, or following design guidelines by Caltrans or railroad agencies), which would be either the ocean or lagoon. This step shall be repeated across the range of future regional/local, relative mean sea level change projections established under Step "a" above. This

could be done by analyzing only the design condition if the only issue of concern for design is the design water level or it could entail analyzing the highest and lowest condition to bracket the full range of potential water levels that the project may experience in the future under higher mean sea level conditions. Intermediate conditions may be analyzed if such information would be useful for conducting optimization analyses for such issues as potential environmental impacts and economic considerations (e.g., Step “d” below).

c. For bridges and embankments located close enough to the ocean such that ocean waves may directly impact structures, the high water level to be used for design may need to be based on both fluvial or coastal processes. These structures are subject to both coastal and fluvial storm impacts and, therefore, the project design needs to consider both fluvial and coastal processes. The bridge design shall use the higher of design water levels determined in these two independent processes.

1) The Fluvial Process: Use procedures described in Step “b” above to determine the design water level under the fluvial process.

2) The Coastal Process: The high design water level shall include contributions from astronomical tide, barometric pressure, wave crest elevation, wave set-up, El Niño Southern Oscillation, and Pacific Decadal Oscillation. Depending on the situation, wave run-up on the structure (e.g., embankment) may also need to be considered in establishing the extreme high ocean water level. This step shall be repeated across the range of future regional/local, relative mean sea level change projections established under Step “a” above. This shall be done by analyzing only the design conditions if the only issue of concern for design is the design water level, or it could entail analyzing the highest and lowest condition to bracket the full range of potential water levels that the project may experience in the future under higher mean sea level conditions. Intermediate conditions may be analyzed if such information would be useful for conducting optimization analyses for such issues as potential environmental impacts and economic considerations (e.g., cost-benefit analysis).

d. Conduct analyses to evaluate trade-offs related to bridge and embankment design. This would include consideration of environmental impacts (e.g., visual and habitat impacts), constructability, construction and maintenance costs, and economic (e.g., cost-benefit) considerations. In addition, a risk assessment shall be performed to determine the consequences of failing to address sea level rise adequately for a particular project and the potential impacts to public health and safety, public investments, and the environment. For example, the risk assessment could evaluate the consequences to fully accommodate the combined “worst possible case” scenario of the highest sea level rise condition in combination with a 100-year river or stream flood event. The actual duration of freeboard exceedance at bridges during such an event is likely to be very short, and the analysis shall compare water levels with criteria other than bridge soffits, such as the ballast for the railroad and travel lanes for I-5 to determine actual effects to transportation operations. At this step, facility designs shall consider whether to 1) design a structure such that it is above the highest future projected water level; 2) design a structure such that it is above a lower future projected water level but allows for adaptive strategies to address higher future projected water levels; or 3) establish a design water surface elevation for use based on an acceptable risk assessment.

Implementation Measure 5.8.1: Grading and roadway work shall be performed in accordance with Caltrans Standard Plans and Specifications. Drainage for proposed improvements shall be constructed in accordance with the Caltrans Highway Design Manual and SANDAG requirements. Where groundwater is present, subsurface drainage devices shall be installed where necessary.

Implementation Measure 5.8.2: Project affected areas within 100 feet of the blufftop edge shall be protected and enhanced through removal of non-natives and invasives and revegetation with native bluff species, where feasible.

Implementation Measure 5.8.3: Caltrans Environmental Engineering and SANDAG shall be kept informed of parcel takes and changes in scope or design as further hazardous waste investigation may be necessary on individual parcels if acquired/ utilized. Since there are known chemical constituents present in soil and groundwater within the corridor, soil excavation activities shall be performed under the guidelines of a site-specific Soil Management Plan and Health and Safety Plan.

Implementation Measure 5.8.4: The Department of Toxic Substances Control (DTSC) lead variance shall be followed for ADL soil excavated in the proposed improvement area. Soil excavated as a whole along the shoulders may be reused as clean material with regard to ADL, unless soil adjacent to the shoulder is segregated from the whole. The DTSC lead variance shall apply for segregated soil from the shoulder. Otherwise, the disposal of ADL soil to a Class I landfill shall be required. Handling or disposal of contaminated groundwater shall comply with NPDES permit requirements.

Implementation Measure 5.8.5: Soils located in the immediate vicinity of service stations in the corridor shall be tested for petroleum hydrocarbons, volatile organic compounds, or semi-volatile organic compounds in order to evaluate the proper handling and/or disposal methods should such contaminants be discovered. Soil excavation activities shall be performed under the guidelines of a site-specific Soil Management Plan and Health and Safety Plan and handling or disposal of contaminated groundwater shall comply with NPDES permit requirements.

Implementation Measure 5.8.6: Improvements and construction activities in the vicinity of the landfills shall be avoided to the extent feasible. If parcels are acquired at historic landfill locations and/or if landfill deposits are encountered, soil excavation activities shall be performed under the guidelines of a site-specific Soil Management Plan and Health and Safety Plan and excavated soil shall be subject to further characterization to evaluate potential risk and proper disposal method consistent with Caltrans Standard Plans and Specifications.

Implementation Measure 5.8.7: If soil from locations containing farmland and nurseries is exported or consider for re-use on-site, further characterization for pesticide/herbicides shall be conducted to evaluate potential risks and proper disposal method.

Implementation Measure 5.8.8: Hazardous Materials Contingency Plans to address chemical spills along the NCC alignment shall be written into the construction contract to deal with hazardous waste issues consistent with Caltrans Standard Plans and Specifications and SANDAG requirements.

Implementation Measure 5.8.9: Where wood guardrail posts, signposts, and/or railroad ties are to be removed/demolished during construction, a safety and health work practices plan shall be submitted to the resident engineer prior to removal. As necessary, wood shall be handled and disposed in accordance with the Caltrans' treated wood nonstandard special provision, including disposal at a composite-lined solid-waste landfill facility permitted to accept such wastes.

Implementation Measure 5.8.10: Prior to demolition of any buildings or existing structures such as bridges for project construction, a survey for lead-based paint and asbestos-containing materials shall be prepared. Should lead-based paint and asbestos-containing materials be discovered, a safety and health work practices plan shall be submitted to the resident engineer prior to removal. All lead-based paint and asbestos-containing materials shall be handled and disposed in accordance with applicable Caltrans/SANDAG policies.

Implementation Measure 5.8.11: A Site Management Program/Contingency Plan shall be prepared prior to construction/demolition of improvements to address known and potential hazardous material issues. All highway, rail station and pedestrian crossings, and community and resource enhancement improvement projects shall prepare and

implement construction staging plans with designated areas to accommodate equipment and vehicles fueling a minimum of 100 feet away from waterbodies over paved or impervious surfaces, and any fuel or petroleum products used for project equipment and vehicles shall be stored a minimum of 100 feet from waterbodies and within the staging area paved or impervious surfaces. A minimum 100 foot fueling setback from waterbodies shall be provided except where i) in-water construction activities for lagoon bridge replacement is required and it would be impractical to transport large equipment to an upland location for each refueling, and ii) where site constraints (such as ESHA or existing infrastructure) adjacent to waterbodies do not allow for a setback of 100 ft. Where a minimum 100 ft. setback from waterbodies for fueling is infeasible, as listed in herein, the maximum setback possible shall be provided given the site constraints and additional BMPs shall be implemented. Additionally, for any in-water fueling, fueling shall take place in a location that has been dewatered and all refueling activities shall be monitored by appropriate personnel identified by the contractor. Equipment and vehicles shall be inspected daily for fuel or fluid leaks, and leaking equipment or vehicles shall be repaired or replaced immediately. If any leaks are detected or impacts to water quality occur, the plan shall specify notification requirements and an emergency protocol for spill containment and clean up. The contractor shall have available at each staging area adequate spill containment equipment (e.g., absorbent materials, containment booms, etc.) to respond to potential fuel or oil spills or leaks from project-related vehicles and equipment.

Implementation Measure 5.8.12: SANDAG and Caltrans acknowledge and agree: (i) that the site of the proposed project may be subject to hazards from seismic events, tsunamis, liquefaction, storms, floods, erosion, and toxic contaminants; (ii) to assume the risks to employees and assigns of Caltrans/SANDAG, including contractors and subcontractors and their officers, agents, and employees, and to the public utilizing the proposed project during and after construction, and to the property that is the subject of this permit of injury and/or damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense against such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

Policy Consistency Summary Analysis

Coastal Act Section 30253 addresses the need to ensure long-term stability and structural integrity, minimize risk, and avoid landform-altering devices. Coastal Act Section 30235 requires approval of shoreline protective devices only in certain, limited cases, including when required to protect existing structures or public beach beaches in danger from erosion, and only when designed to avoid or mitigate adverse impacts on local shoreline sand supply. Additionally, PWP/TREP **Policy 5.8.1** requires all highway, rail, bicycle and pedestrian projects, and community and resource enhancement improvements to be designed and implemented to minimize risks to life and property in areas of high geologic, flood, and fire hazard, and to minimize risk associated with potential hazardous materials release or spillage. **Policy 5.8.1** also requires, under certain circumstances, site-specific project design to be based on the results of detailed, design-level engineering geologic and geotechnical studies.

Geology, Soils, Seismicity, and Topography

The sea cliffs and coastal bluffs seaward of the project area are comprised of two different ages of geologic formations which possess different strengths and erosional characteristics. The lower bluffs are comprised of relatively competent Eocene sedimentary formations (Delmar Formation) which form

vertical sea cliffs. Pleistocene terrace deposits make up the middle and upper bluff areas and tend to form moderate to steep slopes depending upon the ongoing erosion process. The bluffs in this area have historically been stabilized with slope protection including constructing of a fill slope embankment, placement of heavy stone riprap, installation of culverts and underdrains, and landscape seeding establishment. The proposed project components will not involve any modifications to the bluff face and will occur in a geologically stable landward portion of the coastal bluff terrace (i.e., within the existing developed paved area of Coast Highway 101). Consistent with **DDS 6**, no surface flows will be directed over the bluff face and all drainage will be conveyed and discharged to waterways in a non-erosive manner.

In accordance with PWP/TREP **Policy 5.8.1**, the proposed project has been designed to avoid and minimize potential impacts associated with geologic hazards, unstable soils, seismicity, and topography. The project proposes only minor landform alterations. The project site is located on top of a coastal bluff terrace and is not subject to liquefaction hazards from ground shaking events or other geologic risks. As the project site is not in an area of high geologic, flood, and fire hazard risk detailed, design-level engineering geologic and geotechnical studies were not necessary in accordance with **Policy 5.8.1**. Additionally, since there is no risk for liquefaction at the project locations the potential for structural damage as a result of liquefaction does not necessitate mitigation as required by **DDS 2**. Because the project does not involve any of the structures or landform alterations envisioned by **DDS 3** (cuts, foundation subgrade, and embankment subgrade), it is not necessary for technical personnel to be present during project construction for observation. If unexpected subsurface conditions are encountered during construction, a geotechnical specialist would be alerted to make recommendations to the Project Engineer(s) and contractor. In accordance with **DDS 4**, site and soil stability is further addressed through implementation of the conceptual Storm Water Pollution Prevention Plan (SWPPP). A SWPPP will be implemented during construction in order to reduce pollutants in storm water discharges and to reduce the potential for erosion and sedimentation.

Drainage and Flooding

The proposed project has been sited and designed to minimize runoff and thereby reduce erosion in accordance with **DDS 8**. The project site is not located within an identified floodplain and, as such, did not necessitate siting or design to minimize flooding risk and potential harm project consistent with **DDS 7**. Drainage work includes installation of modifications and upgrades to existing curbs, gutters, and drainage inlets and cleaning of existing culverts by removing mud and trash inside the culverts. A Water Quality Assessment Report (WQAR) was prepared for the proposed project which incorporates the PWP/TREP design and development strategies (DDS) and implementation measures (IM) to minimize impacts to coastal waters. A Hydrology Study for the project includes existing and proposed conditions has been prepared and is located in Appendix A of the WQAR. The proposed project includes drainage improvements to minimize erosion potential. A draft conceptual Storm Water Pollution Prevention Plan (SWPPP) has been prepared addressing construction BMPs.

Design/development strategies require an assessment of floodplain hydrology and evaluation of potential impacts of specific designs on water surface elevation, flood conveyance, and potential risk.

However, the project area is not located within a floodplain and as such only general hydrologic conditions and drainage patterns need to be assessed for the proposed project. It is located within the existing developed paved area of Coast Highway 101. General topography for the project site is relatively flat with minor sloped areas. Highway 101 has a gentle slope that increases from Chesterfield Drive to the Santa Fe Drive pedestrian crossing. Currently the street is crowned to allow water to sheet flow to either side and water that flows to the east enters a drainage channel that outlets into the San Elijo Lagoon outlet while water that flows to the west enters the San Elijo State Beach camp ground or grated inlets that eventually discharge towards the Pacific Ocean. Generally, the existing drainage patterns and flow paths will not be altered as a result of the proposed project; however, the proposed project includes improving several of the existing drainage facilities in order to promote positive drainage conditions.

These improvements include the construction of curb and gutters, cross gutters, storm drain inlets, and adjusting existing catch basin inlets to grade. In order to reduce erosion, and resulting runoff turbidity, as well as reduce flows entering the San Elijo State Beach camp ground the majority of the roadway flows will be collected in gutters, curb inlets and catch basins and discharged into existing piped storm drain systems. The bike path paved area will continue to drain towards landscaped areas surrounding the campground, however the curb and gutter along the bike path will collect runoff from the street for that area south of the campground entrance and discharge it to an existing piped storm drain system which flows easterly toward an existing concrete lined channel. The proposed project has been sited and designed to effectively carry the runoff associated with large storm events to an outlet point and prevent any severe ponding and flooding from occurring. Additionally, based on the 100 year storm analysis included in the Hydrologic Analysis prepared for the project (Appendix A of the WQAR), this project will not increase the storm water discharge after the construction of the project. The proposed project also will not meaningfully change any drainage patterns or quantities since the project does not increase impervious area and runoff is still discharged into existing storm drain systems or nearby landscaping. A memo has been prepared responding to Coastal Commission staff comments in regard to water quality and the project.

Sea Level Rise

Sea level rise has occurred on a local and global scale over the past century, and projections indicate that the rate of sea level rise will accelerate in the future. Potential effects of sea level rise include increased shoreline erosion and scour, increased near shore wave energy, flooding, and reduced beach area, all of which can affect the long-term stability of the proposed infrastructure. In March 2013, the State of California's California Climate Action Team and Ocean Protection Council established the latest sea level rise guidance - with ranges in sea level rise of 0.13-0.98 feet between 2000 and 2030, 0.39-2 feet between 2000 and 2050, and 1.38-5.48 feet between 2000 and 2100 are projected. This state guidance also recommends a site-specific risk analysis to determine the appropriate sea level rise for design considerations.

To assist in planning and designing each of the NCC lagoon bridge crossings in consideration of sea level rise, Caltrans and SANDAG prepared the San Diego Region Coastal Sea Level Rise Analysis, dated

September 2013. In accordance with **DDS 10**, this study provides an assessment of potential drainage, tidal inundation, and flooding impacts to transportation infrastructure within the NCC that are potentially subject to sea level rise. The proposed project site is a developed roadway corridor on top of an elevated coastal bluff terrace and impacts from sea level rise are not anticipated.

Hazardous Materials

To minimize risks due to hazardous materials (soils, chemical spills, construction debris/waste) from project activities and construction, the project has incorporated measures to comply with the required design/development strategies and implementation measures, as follows:

Contaminated Soil or Groundwater

DDS 9 requires all soils proposed for disturbance for improvements to be investigated for contamination and requires Phase I Environmental Site Assessments to be prepared when necessary. A Phase I Environmental Assessment was prepared on August 27, 2015 by Advanced GeoEnvironmental, Inc. to determine if the soil or groundwater along the planned bikeway route has been negatively impacted by the use, storage, or release of hazardous materials as required by **DDS. 9**. On November 3, 2016 Advanced GeoEnvironmental, Inc. confirmed that the western alignment lies within the area included as part of their Phase I Environmental Assessment that the findings in the August 27, 2015 Phase I are valid for the currently proposed west side alignment of the CRT.

The Phase 1 Assessment found that no indicated Phase II Environmental Site Assessment was required to be prepared to identify specific mitigation measures to be implemented. The Phase I assessment concluded that two piles of NCTD rail ballast, consisting of soil mixed in with crushed rock, are present on the proposed trail near the intersection of San Elijo Avenue and Montgomery Avenue, however, the piles appear to be absent of any staining or indications of hazardous materials. Additionally, no underground storage tanks (USTs) for storage of petroleum products and/or hazardous substances are located on the subject property. While two 20,000 gallon gasoline USTs are present on the convenience site located at on the southeast corner of Chesterfield Drive and San Elijo Avenue, this is located approximately 300 feet southeast of the subject site and no soils in that location are proposed for disturbance. If potentially contaminated soils are uncovered during construction that were not previously identified, the soils will be sampled and tested to ensure proper handling and public safety measures are implemented and the appropriate local, State, and federal agencies will be notified.

Aerially Deposited Lead (ADL) soils, which can be present along older roadways as a result of aerially deposited lead (ADL) from the historical use of leaded gasoline, are not anticipated to be encountered with the proposed project limits (i.e., an existing developed paved roadway). Therefore, a Lead Compliance Plan is not required for workers performing construction activities. Likewise, since there are no known chemical constituents present in soil and groundwater within the project area, and no soil excavation activities are occurring, construction activities will not need to be performed under the guidelines of a site-specific Soil Management Plan and Health and Safety Plan and, as such, the project will comply with **IM 5.8.3, IM 5.8.4 and IM 5.8.5**.

Assumption of Risk

Although PWP/TREP policies, strategies, and implementation measures have been applied to the proposed project, which are anticipated to withstand any potential hazards associated with development in the project area, it is not possible to remove all risk associated with the uncertainties of natural hazards. For these reasons, even though SANDAG has minimized predictable risks by engineering the proposed project to avoid, mitigate, and/or withstand the impacts described above, a degree of risk from natural hazards would remain and could not be fully mitigated. To protect the Coastal Commission and its employees from liability for the hazards posed by the subject structures and project features designed and managed by SANDAG, SANDAG acknowledge and accept these risks pursuant to **IM 5.8.12**.

In conclusion, the proposed project would avoid and minimize coastal hazards, as described above. In compliance with Coastal Act Sections 30253, 30235, 30232, and 30236 and in accordance with the policies, design/development strategies, and implementation measures included in Section 5.8 of the NCC PWP/TREP.