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Date: November 21, 2019

To: Coastal Commissioners and Interested Persons

From: Karl Schwing, Deputy Director, San Diego Coast District
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Subject: **Coastal Development Permit Application No. 6-19-1233 and Notice of Impending Development No. NCC-NOID-0002-19 (Phase 1/Stage 4, Interstate 5 North Coast Corridor Project)** for Public Hearing and Commission Action at the December 11, 2019 Commission Meeting in Calabasas

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SYNOPSIS

Coastal Development Permit (CDP) Application No. 6-19-1233 and Notice of Impending Development (NOID) No. NCC-NOID-0002-19 were submitted by District 11 of the California Department of Transportation (Caltrans) on September 26, 2019, and were filed complete effective November 20, 2019. The Commission must take action on the NOID by December 20, 2019 unless Caltrans waives the required 30-day processing time.

The subject project is included in the development authorized by the certified North Coast Corridor Public Works Plan and Transportation and Resource Enhancement Program (NCC PWP/TREP), a comprehensive program of transportation, community, and resource enhancement projects within what is referred to as the North Coast Corridor (NCC), which extends from La Jolla to Oceanside along the North San Diego County coastline. Jointly prepared by Caltrans and the San Diego Association of Governments (SANDAG), the NCC PWP/TREP was approved by the Coastal Commission on August 13, 2014 (PWP-6-NCC-13-0203-1), and has been amended twice since then (PWP-6-NCC-16-0001-1 and PWP-6-NCC-16-0006-2). The standard for the Commission's review of the NOID is conformity with the NCC PWP/TREP. A portion of the project is located within Agua Hedionda Lagoon, which is within the Commission's retained jurisdiction, and therefore that aspect of the project requires a CDP. The standard of review for the CDP application is the Chapter 3 policies of the Coastal Act, while the NCC PWP/TREP may be used for guidance.

EXECUTIVE SUMMARY

Background

The NCC is approximately 27 miles long, up to six miles wide, and home to over 525,000 people **(Exhibit 1)**. Six cities lie entirely or partially within the NCC: San Diego, Del Mar, Solana Beach, Encinitas, Carlsbad, and Oceanside. The NCC includes open stretches of public beaches, six coastal lagoons, five creeks and rivers, open space, and coastal habitat areas. The NCC PWP/TREP is an integrated document for comprehensively planning, reviewing, and permitting the transportation, community, and resource enhancement projects within the NCC. The NCC PWP/TREP creates a framework for specific projects to be analyzed and implemented over the next 40 years under a coordinated plan. The goal of the planning process is to optimize the suite of improvements so that transportation goals are achieved in a manner that maintains and improves public access, while also maximizing protection and enhancement of the region's significant sensitive coastal resources.

The NCC PWP/TREP includes a Phasing Plan with an implementation schedule for a series of rail, highway, transit, bicycle, and pedestrian projects to improve and maintain mobility and access to coastal recreational resources in the NCC. The NCC PWP/TREP also includes a comprehensive restoration program designed to protect, restore, and enhance sensitive coastal resources within the corridor as one means of mitigating the resource impacts of the transportation and community enhancement projects. The framework of the Phasing Plan links various project types to ensure that transportation infrastructure improvements are constructed on a schedule that aligns with recreational improvements and regional restoration efforts. The Phasing Plan ensures that mitigation for project impacts is provided before the resources are impacted.

Project Description

Through the subject CDP application and NOID, Caltrans is requesting review of Phase 1/Stage 4 of the Interstate 5 (I-5) North Coast Corridor Project **(Exhibit 2)**. Stage 4 includes the addition of one new High Occupancy Vehicle (HOV) lane in each direction of I-5 from 0.3 miles north of Palomar Airport Road to 0.1 miles north of the Cassidy Street overcrossing (approximately four miles of the approximately 27-mile North Coast Corridor). From Palomar Airport Road to Cannon Road, a stretch of approximately 0.8 miles, construction of HOV lanes would require outside freeway widening with the associated realignment of on and off-ramps and the extension of drainage culverts and downdrains to accommodate the widening. The installation of drainage features from Agua Hedionda Lagoon southbound for approximately 1,000 feet would require additional widening.

The addition of HOV lanes in the freeway median would require the removal of the existing concrete barriers and the removal of the existing median vegetation. Once the widening is complete, new concrete barriers will be constructed on top of the newly constructed pavement, reestablishing a 4-foot median planting area. Two sections of the median, one being 0.7 miles long at Agua Hedionda Lagoon and the other, a 0.5-mile

long section at Buena Vista Lagoon, would have a single barrier without a planting area in order to preserve views of the lagoons. All lanes would be 11 feet wide except for the outside "truck lane" in each direction, which would be 12 feet wide. The outside freeway widening would require construction of graded slopes using a typical inclination of two horizontal to one vertical in cut and fill areas. No widening of any bridges would occur.

Thirty-eight drainage culverts and downdrains will be rehabilitated by cleaning, relining, replacing, or extending as necessary. Two of these culverts, located at the southern abutment of Agua Hedionda Lagoon Bridge on either side of the freeway, are partially located within the Commission's retained jurisdiction. Other drainage infrastructure improvements have been designed to capture stormwater runoff and pollutants from the existing and new highway pavement, including bio-infiltration swales as well as new polishing (to remove solid pollutants) and landscaping in the highway medians and shoulders.

Additional project features include extending an auxiliary lane in the southbound direction from Cannon Road to Palomar Airport Road. New signage and lighting are planned at key decision-making points along the highway. Antennas for autonomous vehicles will be added to existing freeway sensor equipment poles. A fill retaining wall will be constructed to reinforce the northbound shoulder between Palomar Airport Road and Cannon Road. Caltrans will construct three soundwalls at Tamarack Avenue northbound, Las Flores Drive northbound, and Las Flores Drive southbound to provide a reduction in noise levels affecting adjacent residential development. In coordination with the City of Carlsbad, Caltrans will also construct community enhancements that incorporate multi-modal facilities and artwork at the Chestnut Avenue freeway undercrossing.

This Phase 1/Stage 4 project is identified as part of the initial phase (2010-2020) improvements in the NCC PWP/TREP **(Exhibit 3)**. Construction for Stage 4 is scheduled to begin in early 2020, with completion by the end of 2021. As required by Senate Bill 468 (Kehoe, 2011) and the NCC PWP/TREP, Caltrans and SANDAG have coordinated construction activities within the I-5 and LOSSAN transportation corridors in order to minimize energy consumption and impacts to sensitive coastal resources. Coordinated construction activities for those projects will reduce construction-related temporal impacts to habitat areas within the corridor, and will allow for the shared use of staging and storage areas for multiple stages of the NCC project.

Project Benefits and Impacts

Project benefits within the coastal zone include improved air quality, water quality, multi-modal access, and safety. The HOV lanes throughout the project limits will connect to the HOV lanes being constructed through Phase 1/Stages 1-3 of the I-5 NCC Project. The new auxiliary lanes are designed to lessen bottlenecking on that segment of I-5. Caltrans has coordinated with the City of Carlsbad and local stakeholders to design bicycle and pedestrian facilities at the Chestnut Avenue undercrossing that will be constructed simultaneously with the highway improvements, improving multi-modal connectivity within the NCC. The rehabilitation of existing culverts and stormwater infrastructure

improvements will enhance water quality within three watersheds that currently experience pollution associated with the existing substandard highway drainage. Stormwater treatments include bio-infiltration swales and new polishing/landscaping that, in aggregate, increase the total area where stormwater runoff is treated within the drainages of each watershed to the targets set forth in the NCC PWP/TREP. The soundwalls will provide a reduction in highway traffic noise to the surrounding residential community without adversely affecting existing coastal views from the highway.

Coastal Act Section 30233(a) only permits the diking, filling, or dredging of wetlands where there is no feasible less environmentally damaging alternative, where feasible mitigation measures have been provided to minimize adverse environmental effects, and when it is limited to certain uses. Section 30240 prohibits significant disruption or degradation of the habitat values of ESHA and buffers. Through its approval of the NCC PWP/TREP, the Commission found that the proposed wetland fill associated with the highway project, by itself, would not be an allowable use, and that other elements of the project would significantly disrupt and/or degrade ESHA. However, the Commission found that the NCC PWP/TREP, as a whole, presented conflicts among Chapter 3 policies, and employed the conflict resolution provisions of Coastal Act Sections 30007.5 and 30200(b) to permit limited dredging and filling of wetlands, despite the inconsistency with Section 30233, and limited impacts to ESHA, despite the inconsistency with Section 30240.

The Commission's conflict resolution discussion for the NCC PWP/TREP is applicable to environmentally sensitive habitat area (ESHA) and wetland impacts associated with the Phase 1/Stage 4 Project, as it is a specific project analyzed within the NCC PWP/TREP. The NCC PWP/TREP anticipates and authorizes these impacts, and the Resource Enhancement and Mitigation Program (REMP) within the NCC PWP/TREP provides for compensatory mitigation to enhance and restore the biodiversity and habitat functions on a regional scale in advance of unavoidable project impacts. The REMP includes options for allocating funding from SANDAG for regionally significant mitigation opportunities, including the establishment, restoration, enhancement, preservation, and long-term management of coastal wetlands and adjacent riparian areas, transitional habitats, and upland areas. The approved program is intended to restore and enhance an integrated ecosystem that provides habitat for birds, fish, and benthic organisms, thereby compensating for the impacts of the NCC PWP/TREP transportation improvements, and enhancing ESHA and wetlands throughout the coastal zone in north San Diego County.

The subject project would result in approximately 0.15 acres of permanent impacts and 0.01 acres of temporary impacts to sensitive upland habitats (coastal sage scrub and southern maritime chaparral), as well as 0.01 acres of permanent impacts to mudflat wetland habitat. The NCC PWP/TREP anticipates these impacts and authorizes these improvements or, in the case of project components within the Commission's retained jurisdiction, finds them approvable notwithstanding these impacts. Pursuant to the REMP, Caltrans will mitigate the permanent upland impacts at the Dean mitigation site, the temporary upland impacts at the Batiquitos Bluffs mitigation site (at a 2:1 ratio), and

the wetland impacts at the Hallmark West mitigation site **(Exhibit 4)**. Caltrans has adequate mitigation credits available from these sites and has debited the necessary mitigation acreages for the subject project.

SUMMARY OF STAFF RECOMMENDATION

Staff is recommending that the Commission approve CDP No. 6-19-1233, as conditioned, and determine that NOID No. NCC-NOID-0002-19, as conditioned, is consistent with the NCC PWP/TREP. Special Conditions 1-2 would apply to both the CDP and the NOID, while Special Condition 3 would apply only to the NOID.

Special Condition 1 would require Caltrans to submit Final Project Plans prior to construction of the project, in substantial conformance with those submitted with the application. In order to enhance water quality, **Special Condition 2** would require Caltrans to submit a Final Expanded Format Stormwater Data Report (SWDR), Stormwater Treatment Exhibit, and Stormwater Pollution Prevention Plan. The SWDR and Stormwater Treatment Exhibit shall identify all infrastructure improvements designed to capture stormwater runoff and pollutants from the existing and new highway pavement, including bio-infiltration swales and new polishing/landscaping. The Final Stormwater Pollution Prevention Plan shall detail BMPs to be used to minimize water quality impacts during construction. **Special Condition 3** would require implementation of a Cooperative Maintenance Agreement with the City of Carlsbad for the proposed community enhancements within the City's jurisdiction at the Chestnut Avenue undercrossing (sidewalks, bike lanes, lighting, and artwork).

The standard of review for the subject NOID is whether the development is consistent with the certified NCC PWP/TREP, and whether conditions are required to bring the development into conformance with the PWP. With the required special conditions, the development is consistent with the policies, design/development strategies, and implementation measures in the NCC PWP/TREP. The standard of review for those portions of the Stage 4 improvements occurring in areas of the Commission's retained jurisdiction, consisting of the replacement of approximately 10 cubic yards of rock slope protection designed to minimize the erosion from two culverts draining into Agua Hedionda Lagoon, is the Chapter 3 policies of the Coastal Act, while the NCC PWP/TREP may be used for guidance. With the required special conditions, and as part of the larger program analyzed in the NCC PWP/TREP, those portions of the proposed project are also approvable.

The motions and resolutions to implement the staff recommendation begin on Page 10. The findings for approval of the CDP and determination of the NOID's consistency with the NCC PWP/TREP begin on Page 13.

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I. PROCEDRURAL ISSUES

PUBLIC WORKS PLAN BACKGROUND AND HISTORY

Section 30114 of the Coastal Act defines public works to include, among other things, the following:

> *(b) All public transportation facilities, including streets, roads, highways, public parking lots and structures, ports, harbors, airports, railroads, and mass transit facilities and stations, bridges, trolley wires, and other related facilities. (…)*
>
> *(c) All publicly financed recreational facilities, all projects of the State Coastal Conservancy, and any development by a special district.*

Section 30605 of the Coastal Act states, in part:

> *To promote greater efficiency for the planning of any public works (…) and as an alternative to project-by-project review, plans for public works (…) may be submitted to the commission for review in the same manner prescribed for the review of local coastal programs set forth in Chapter 6 (commencing with Section 30500).*

A Public Works Plan (PWP) is one of the alternatives available to the Commission and project proponents for Commission review of large or phased public works projects. Public Works Plans remain under the authority of the Commission irrespective of coastal permitting jurisdictional boundaries. A PWP is an alternative to project-by-project review for public works (which, in the case of the overarching plan of which the current proposal is a part, would require multiple coastal development permits, in multiple jurisdictions, if not processed through a PWP). PWPs must be sufficiently detailed regarding the size, kind, intensity, and location of development to allow the Commission to determine their consistency with the Chapter 3 policies of the Coastal Act (in areas that are pre-LCP certification) or the certified LCP (in post-LCP certification areas). Once the Commission approves a PWP, in general, no coastal development permit is required for a specific project described within it; rather, before commencing each specific project, the project proponent must submit notice in the form of a Notice of Impending Development (NOID), which requires the Commission to determine whether the submitted project is consistent with the standards of the PWP, or if conditions are necessary to make it consistent. The PWP at issue here (identified as the NCC PWP/TREP)[1] was approved by the Commission on August 13, 2014.

[1] As that name implies, this particular PWP is actually more than a Public Works Plan. The "TREP" portion of the name reflects the fact that the package as a whole (referred to within this note as "the PWP") includes components that were submitted to the Commission as a consistency certification (CC-0002-14), for review via the federal consistency process created by the Coastal Zone Management Act. In August of 2014, the Commission concurred with that consistency certification at the same time it certified the actual Public Works Plan. Finally, the PWP also includes project components that are within the Commission's

The policies and design/development strategies of the NCC PWP/TREP apply to all improvements proposed by the PWP, while the implementation measures are project-specific and apply to NCC PWP/TREP improvements that are subject to the NOID review process. As indicated in the footnote on the prior page, this particular PWP includes analyses of projects within the Commission's area of retained jurisdiction, which therefore remain subject to the normal CDP process, as well as some components that are to be reviewed through the federal consistency process rather than the NOID process. Although the PWP portion of the NCC PWP/TREP does not directly authorize aspects of the subject project that are within the areas of the Commission's retained jurisdiction, it does assess their benefits and impacts as part of the overall package, and the TREP portion of the NCC PWP/TREP, which implements the Commission's federal consistency review authority, covers those aspects of the project as well.

STANDARD OF REVIEW

Sections 30605 and 30606 of the Coastal Act and Title 14, Sections 13357(a)(5), 13358, and 13359 of the California Code of Regulations govern the Coastal Commission's review of subsequent development where there is a certified PWP. The standard of review for those portions of the proposed project that are specifically authorized by the PWP component of the NCC PWP/TREP, and for which a Notice of Impending Development has been submitted, is whether the development is consistent with the PWP. The notice is to be filed when all necessary supporting information has been received.

Pursuant to Section 13359 of Title 14 of the California Code of Regulations, within thirty working days of the filing of the NOID, the Executive Director shall report to the Commission the pendency of the development and make a recommendation regarding the consistency of the proposed development with the certified PWP. After public hearing, by a majority of its members present, the Commission shall determine whether the development is consistent with the certified PWP as submitted, or whether conditions are needed to bring the development into conformance with the PWP.

The standard of review for those portions of the specific project improvements occurring in areas of the Commission's retained jurisdiction, and for which a CDP application has been submitted, including within Agua Hedionda Lagoon, is the Chapter 3 policies of the Coastal Act.

LOCAL GOVERNMENT CONSULTATION

Throughout the development of the NCC PWP/TREP, Caltrans and SANDAG have engaged the local governments in the review process. Focused meetings were held with City staffs beginning in January 2011 and extending through the summer of 2012. In the

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area of retained jurisdiction, and which therefore remain subject to the normal coastal development permit process, rather than the NOID process typically associated with PWPs.

fall of 2013, Caltrans and SANDAG presented agendized briefings to the City Councils of San Diego, Encinitas, Carlsbad, and Oceanside in order to provide an update on the ongoing PWP document development and process. Staff from Caltrans, SANDAG, and the Commission have had ongoing coordination meetings with the corridor cities since the approval of the NCC PWP/TREP in August 2014 to discuss the preliminary NCC PWP/TREP projects. Most recently, Caltrans briefed the SANDAG Transportation Commission, which includes representatives from the City of Carlsbad and the City of Oceanside, on the status of the subject Stage 4 project in September 2019. Caltrans staff also discussed components of Stage 4 with staff and elected officials from the City of Carlsbad in October 2019.

STAKEHOLDER CONSULTATION

The Resource Enhancement and Mitigation Program (REMP) within the NCC PWP/TREP was developed through a collaborative process with representatives from various resource agencies including the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the California Department of Fish and Wildlife, the Regional Water Quality Control Board, NOAA National Marine Fisheries Service, the U.S. Environmental Protection Agency, and the California Coastal Conservancy. The development of the REMP was initiated by members of this group as early as 2010 in order to identify regionally significant restoration and enhancement opportunities within the NCC. Through the NCC PWP/TREP, this group has been formalized as the REMP Working Group and meets quarterly to track and guide progress through the planned implementation phases of the PWP. The Stage 4 Project that is the subject of this CDP/NOID was presented at the August 2019 REMP Working Group meeting. All comments and feedback received from the REMP Working Group have been addressed by Caltrans as a part of the subject submittal. Additional permits for the specific project are also required from the various resource agencies, and those reviews have already been concluded.

II. MOTIONS AND RESOLUTIONS

A. NOID NCC-NOID-0002-19: Approval with Conditions

MOTION I:

> ***I move that the Commission determine that the development described in Notice of Impending Development NCC-NOID-0002-19, as conditioned, is consistent with the certified North Coast Corridor Public Works Plan and Transportation and Resource Enhancement Program.***

Staff recommends a **YES** vote. Passage of this motion will result in a determination that the development described in the Notice of Impending Development NCC-NOID-0002-19, as conditioned, is consistent with the certified North Coast Corridor Public Works Plan and Transportation and Resource Enhancement Program, and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION I:

> *The Commission hereby determines that the development described in the Notice of Impending Development NCC-NOID-0002-19, as conditioned, is consistent with the certified North Coast Corridor Public Works Plan and Transportation and Resource Enhancement Program, for the reasons discussed in the findings herein.*

B. CDP No. 6-19-1233: Approval with Conditions

MOTION II:

> ***I move that the Commission approve Coastal Development Permit Application No. 6-19-1233 subject to the conditions set forth in the staff recommendation.***

Staff recommends a **YES** vote. Passage of this motion will result in conditional approval of the permit and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION II:

> *The Commission hereby approves coastal development permit 6-19-1233 and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.*

III. STANDARD CONDITIONS

The coastal development permit is granted subject to the following standard conditions:

1. **Notice of Receipt and Acknowledgment**. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. **Interpretation.** Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.

4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

IV. SPECIAL CONDITIONS

A. SPECIAL CONDITIONS FOR BOTH CDP 6-19-1233 & NOID NCC-NOID-0002-19

1. **Final Project Plans.** PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, Caltrans shall submit to the Executive Director for review and written approval, final project plans for the Phase 1/Stages 4 Project, including Final Construction Plans and a Final Construction Schedule including lane/ramp closures. Said plans shall be in substantial conformance with the preliminary plans submitted November 1, 2019.

   Caltrans shall undertake the development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans for the portions of the project covered by CDP 6-19-1233 shall occur without an amendment to this coastal development permit unless the Executive Director determines that no amendment to the coastal development permit is legally required; and no changes to the approved final plans for the portions of the project covered by NCC-NOID-0002-19 shall occur without a subsequent NOID unless the Executive Director determines that a subsequent NOID is not legally required.

2. **Final Expanded Format Stormwater Data Report, Stormwater Treatment Exhibit, and Stormwater Pollution Prevention Plan.** PRIOR TO COMMENCEMENT OF CONSTRUCTION, Caltrans shall submit to the Executive Director for review and written approval, the Final Expanded Format Stormwater Data Report (SWDR), Final Stormwater Treatment Exhibit (Exhibit), and Stormwater Pollution Prevention Plan (SWPPP). The expanded-format SWDR for Phase 1/Stage 4 and Stormwater Treatment Exhibit for the Encinas Creek, Agua Hedionda Lagoon, and Buena Vista Lagoon watersheds within the project limits shall identify all infrastructure improvements designed to capture stormwater runoff and pollutants from the existing and new highway pavement, including bio-infiltration swales and new polishing/landscaping. The project design reflected in the expanded-format SWDR and Exhibit shall include improvements that, in aggregate, increase the total area where stormwater runoff is treated within the drainages of each watershed to the targets set forth in NCC PWP/TREP Section 5.4 (Figure 5.4-1B: Water Quality Treatment Areas), consistent with the preliminary SWDR and Exhibit submitted October 8, 2019.

   The SWPPP shall include all housekeeping, source control, and treatment control BMPs that will be used during construction and will be updated as needed to reflect progression and phasing of the project. The SWPPP shall be supplemented to include dewatering requirements necessary for the construction of the project and an Aerially Deposited Lead (ADL) handling plan.

   Caltrans shall undertake the development in accordance with the approved final plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan for the portions of the project covered by CDP 6-19-1233 shall occur without an amendment to this coastal development permit unless the Executive Director determines that no amendment to the coastal development permit is legally required; and no changes to the approved final plan for the portions of the project covered by NCC-NOID-0002-19 shall occur without a subsequent NOID unless the Executive Director determines that a subsequent NOID is not legally required.

B. SPECIAL CONDITION FOR NOID NCC-NOID-0002-19

3. **Cooperative Maintenance Agreement.** PRIOR TO COMMENCEMENT OF CONSTRUCTION, Caltrans shall submit to the Executive Director for review and written approval, a Cooperative Maintenance Agreement with the City of Carlsbad for the proposed community enhancements within the City's jurisdiction at the Chestnut Avenue undercrossing (sidewalks, bike lanes, artwork, and lighting).

V. FINDINGS AND DECLARATIONS

A. PROJECT DESCRIPTION

The Interstate 5 (I-5) North Coast Corridor (NCC) Project includes improvements and maintenance of existing and future traffic operations on the I-5 highway from La Jolla Village Drive in San Diego to Harbor Drive in Oceanside/Camp Pendleton, extending approximately 27 miles **(Exhibit 1)**. In July 2011, Caltrans identified the "8+4 Buffer Alternative" as the Locally Preferred Alternative, which was further supported by its identification as the Least Environmentally Damaging Practicable Alternative during the environmental review process.[2] That alternative consists of two high occupancy vehicle (HOV)/Managed Lanes in each direction, separated by a buffer from the existing four general purpose lanes in each direction. Other components include auxiliary lanes, bridge replacements, overcrossing improvements, two new Direct Access Ramps, interchange improvements, six access points to the HOV lanes, park-and-ride facilities, gateway features, intelligent transportation system features, retaining walls, and soundwalls. The project will be implemented in three phases over a 40 year period.

Caltrans is currently requesting review of Phase 1/Stage 4 of the NCC PWP/TREP project. The Stage 4 project site spans approximately five miles of I-5, from 0.1 miles north of Palomar Airport Road in Carlsbad to 0.1 miles north of Oceanside Boulevard in Oceanside (PM 47.0-52.4)**(Exhibit 2)**. Stage 4 includes the addition of one new High Occupancy Vehicle (HOV) lane in each direction of I-5 from 0.3 miles north of Palomar Airport Road to 0.1 miles north of the Cassidy Street overcrossing in Oceanside **(Exhibit 5)**. From Palomar Airport Road to Cannon Road, a stretch of approximately 0.8 miles, construction of HOV lanes would require outside freeway widening with the associated realignment of on and off-ramps and the extension of drainage culverts and downdrains to accommodate the widening. The installation of drainage features from Agua Hedionda Lagoon southbound for approximately 1,000 feet would require additional widening.

The addition of HOV lanes in the freeway median would require the removal of the existing concrete barriers and the removal of the existing median vegetation. Once the widening is complete, new concrete barriers will be constructed on top of the newly constructed pavement, reestablishing a 4-foot median planting area. Two sections of the median, one being 0.7 miles long at Agua Hedionda Lagoon and the other, a 0.5-mile long section at Buena Vista Lagoon, would have a single barrier without a planting area to preserve views presented by the lagoons. All lanes will be 11feet wide except for the outside "truck lane" in each direction, which will be 12 feet wide. The outside freeway widening would require construction of graded slopes using a typical inclination of two horizontal to one vertical in cut and fill areas. No widening of any bridges would occur.

Additional project features include extending an auxiliary lane in the southbound direction from Cannon Road to Palomar Airport Road. New signage and lighting are planned at key decision-making points along the highway. A fill retaining wall will be

[2] Final Environmental Impact Report/Environmental Impact Statement (SCH No. 2004101076), November 2013.

constructed to reinforce the northbound shoulder between Palomar Airport Road and Cannon Road. Caltrans will construct three soundwalls at Tamarack Avenue northbound, Las Flores Drive northbound, and Las Flores Drive southbound to provide a reduction in noise-level for adjacent residential development. Thirty-eight drainage culverts and downdrains will be rehabilitated by cleaning, relining, replacing, or extending as necessary. Infrastructure improvements designed to capture stormwater runoff and pollutants from the existing and new highway pavement include bio-infiltration swales as well as new polishing (to remove solid pollutants) and landscaping in the highway medians and shoulders. In coordination with the City of Carlsbad, Caltrans will also construct community enhancements that incorporate multi-modal facilities and artwork at the Chestnut Avenue freeway undercrossing.

This Phase 1/Stage 4 project is identified as part of the initial phase (2010-2020) improvements in the NCC PWP/TREP **(Exhibit 3)**. Construction for Stage 4 is scheduled to begin in early 2020, with completion by the end of 2021. As required by Senate Bill 468 (Kehoe, 2011)[3] and the NCC PWP/TREP, Caltrans and SANDAG have coordinated construction activities within the I-5 and LOSSAN transportation corridors in order to minimize energy consumption and impacts to sensitive coastal resources. Coordinated construction activities for those projects will reduce construction related temporal impacts to habitat areas within the corridor, and will allow for the shared use of staging and storage areas for multiple stages of the NCC project.

Highway Improvements

HOV/Managed Lanes

The ultimate "8+4 Buffer Alternative" includes four HOV/Managed Lanes, two in each direction, and would separate the HOV/Managed Lanes from general purpose lanes with a 4-foot variable width buffer. The Stage 4 Project involves the construction of one HOV lane in each direction within the existing I-5 highway median from 0.3 miles north of Palomar Airport Road to 0.1 miles north of the Cassidy Street overcrossing (approximately four miles of the approximately 27 mile North Coast Corridor).

The addition of HOV lanes in the freeway median would require the removal of the existing concrete barriers and the removal of the existing median vegetation. Once the widening is complete, new concrete barriers will be constructed on top of the newly constructed pavement, reestablishing a 4-foot median planting area. Two sections of the median, one being 0.7 miles long at the Agua Hedionda Lagoon and the other, a 0.5-mile long section at Buena Vista Lagoon, would have a single barrier without a planting area to preserve views of the lagoons. All lanes will be 11 feet wide except the outside "truck lane" in each direction, which will be 12 feet wide.

Auxiliary Lanes

Auxiliary lanes are located on the outside edge of the highway and connect with on-ramps and off-ramps to allow for acceleration, deceleration, merging, truck climbing, and

[3] Codified at Streets and Highways Code, Sections 103 and 149.10.

purposes supplementary to through traffic. These lanes maximize capacity by reducing congestion caused by weaving and variable travel speeds. In the NCC, where access to local streets from I-5 (ramp volume) is high due to local trips using the highway, the distances between interchanges are short, and highway volumes are high, resulting in increased merging movements that can create greater levels of congestion. As such, one auxiliary lane will be constructed in the southbound direction from Cannon Road to Palomar Airport Road. This auxiliary lane will reduce congestion at primary freeway merging points and will aid in the continued movement of vehicles within the freeway corridor.

Utilities

Public utilities, such as gas, electric, television/cable, sewer, and water lines, that are located within the public right-of-way will be relocated or protected in place. The location of all utilities will be verified prior to subsurface investigation or construction. All utility relocations will be coordinated with the respective utility companies. Any new habitat impacts associated with utility relocation will be fully mitigated pursuant to the Restoration Enhancement and Mitigation Program (REMP).

Soundwalls

The project includes construction of three soundwalls to reduce highway traffic noise to the surrounding residential community without adversely affecting existing coastal views from the highway. None of the soundwalls are within existing lagoon viewsheds. All soundwalls are set back from the edge of highway and softened by a landscape buffer between the wall and highway barrier.

Soundwall 802 would be located within Caltrans right-of-way along the northbound side of I-5 just south of Tamarack Avenue in Carlsbad. The soundwall would be approximately 8 feet high and 545 feet long and provide a reduction in noise-level for multi-family residences. The soundwall will be constructed of solid masonry block, and visually enhanced using various block sizes and textures.

Soundwall 826 would be located within Caltrans right-of-way along the northbound side of I-5 just north of Las Flores Drive in Carlsbad. The soundwall would be approximately 10 feet high and 433 feet long and provide a reduction in noise-level for a single-family residence. The soundwall will be constructed of solid masonry block, and visually enhanced using various block sizes and textures.

Soundwall 827 would be located within private property along the southbound side of I-5, just north of Las Flores Drive in Carlsbad. The soundwall would be approximately 16 feet high and 584 feet long and provide a reduction in noise-level for a group of single-family and multi-family residences. The soundwall will have architectural detailing compatible with residential development, and will be constructed of Mesa Buff colored masonry block and transparent acrylic panels set within an aluminum store front system. The block pattern will be enhanced with blocks of different sizes and textures. The acrylic transparent panels include narrow vertical lines to deter bird strike without affecting access to light or views.

Retaining Walls and Reinforced Slopes

The Stage 4 project includes the construction of one retaining wall (933 feet long and 4 feet tall), which will reinforce the northbound I-5 outside shoulder above a concrete drainage ditch **(Exhibit 5)**. The retaining wall will not be visible from the roadway, and was designed in accordance with the required design/development strategies and implementation measures outlined in the PWP/TREP.

Additionally, the proposed community enhancements at the Chestnut Avenue undercrossing require the construction of new retaining walls to accommodate the widening, as shown in **Exhibit 6**. The widening would allow for new 5-foot bike lanes and 10-foot wide sidewalks on both sides of the local street. An 11-foot buffer (8 feet for parking and 3 feet for buffer) is proposed between the bike lane and sidewalk. Early pre-consultation has occurred with the City of Carlsbad to design the bicycle and pedestrian facilities to connect with proposed City sidewalks and bike facilities in these locations.

Outside highway shoulder widening will require construction of graded slopes in several segments. The graded slopes will have a typical inclination of two horizontal to one vertical in fill areas and one-and-a-half horizontal to one vertical in cut areas. Cut slopes will be stepped to create planting areas on the flat steps. Some fill slopes will be steeper than two-to-one to minimize impacts to existing mature landscaping and maximize right-of-way. Steeper fill slopes will be constructed as Geosynthetically Reinforced Embankments, in which multiple layers of soil and mesh made of engineered fabric are placed and compacted to create stable, reinforced slopes. All slopes will be stabilized by temporarily irrigated southern California native plantings.

Stormwater Treatment

Caltrans has designed infrastructure improvements designed to capture stormwater runoff and pollutants from the existing and new highway pavement, including bio-infiltration swales and new polishing/landscaping. To the extent feasible, and as envisioned in the PWP, stormwater will be treated to remove pollutants before draining to Encinas Creek, Agua Hedionda Lagoon, and Buena Vista Lagoon **(Exhibit 8)**.

Culvert and Down Drain Rehabilitation

The project would rehabilitate (extend, replace, reline, or clean) 38 existing culverts and downdrains. Materials used to rehabilitate the culverts include plastic pipe liners, steel pipe liners, concrete invert paving, polyvinyl chloride (PVC) and high density polyethylene (HDPE) slip liners and cured-in-place pipe (CIPP). The uses of material will be determined once the culverts have been assessed. These preventative measures are needed to extend the life of these systems in an effort to prevent flooding and other damage to the roadway.

Community Enhancements

In consultation with the City of Carlsbad, proposed community enhancements for Stage 4 include roadway widening of Chestnut Avenue where it passes under the I-5 Freeway, as shown in **Exhibit 6**. The widening would accommodate new 5-foot bike lanes and 10-foot wide sidewalks on both sides of the local streets. An 11-foot buffer (8 feet for parking and 3 feet for buffer) is proposed between the bike lane and sidewalk. New

retaining walls are required to accommodate the widening. Early pre-consultation has occurred with the City to design the bicycle and pedestrian facilities to connect with proposed City sidewalks and bike facilities in these locations. The City will enhance these pedestrian facilities with specialty paving, bollard lighting, and artwork.

Construction Staging Areas
Caltrans will use the future site of the Manchester Multi-Use Facility (approximately 420,000 sq. ft.) as the primary construction staging area for the subject project. Potential uses at this site include offices, material storage, batch plant, crushing/recycling, stockpiling, and processing of earthen materials. Staging and storage at this site was previously approved by the Commission for use through the completion of Phase 1/Stage 1 and the San Elijo Lagoon Restoration Project (CDP No. 6-15-2092, NOID No. NCC-NOID-0005-15). The construction schedule for Stage 4 will partially overlap with the construction schedule for those approved projects, which are expected to conclude in late 2020.

Once construction of the Phase 1/Stage 1 Project and the San Elijo Lagoon Restoration Project is complete, the Manchester Multi-Use Facility will be established as a park-and-ride lot and construction staging for the Stage 4 Project will move to auxiliary sites. Those auxiliary sites may also be used as stockpile areas during construction and include existing disturbed and re-landscaped Caltrans parcels surrounded by highway on-ramps and off-ramps (gores).

B. AIR QUALITY AND GREENHOUSE GAS EMISSIONS

Section 30253 of the Coastal Act states:

> *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. (…)*

In addition, Policy 5.1 of the NCC PWP/TREP states:

> *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*

Section 30253 of the Coastal Act requires that new development minimize energy consumption and vehicle miles traveled (VMT) and that new development is consistent with air quality requirements, including restrictions on greenhouse gas (GHG) emissions.

One of the key objectives of the I-5 NCC Project is to improve the efficiency of the corridor by encouraging alternatives to single occupancy vehicle travel. This requires a multimodal transportation approach. As such, Stage 4 includes the addition of HOV lanes to I-5 and other highway-capacity improvements. The HOV lanes will primarily accommodate and encourage carpools, vanpools, and future bus rapid transit – all of which are transportation modes that move more people and not necessarily more vehicles. These improvements will reduce congestion and traffic delays, providing free-flow travel, particularly in HOV lanes, which will reduce vehicle hours traveled (VHT) and associated emissions. By maximizing person throughput in the corridor while minimizing the level of energy use and emissions per person mile traveled, the subject CDP is consistent with Coastal Act Section 30253(d).

The project also includes construction of multi-modal transportation facilities on Chestnut Avenue where it passes under the I-5 freeway, as shown in **Exhibit 6**. In consultation with the City of Carlsbad, Caltrans proposes to widen Chestnut Avenue to accommodate new bike lanes and wider sidewalks on both sides of the street. An 11-foot buffer (8 feet for parking and 3 feet for buffer) is proposed between the bike lane and sidewalk. Early pre-consultation has occurred with the City to design the bicycle and pedestrian facilities to connect with proposed City sidewalks and bike facilities, thereby enhancing the multi-modal transportation network in this community.

Increased traffic congestion during project construction would result in air quality conditions that would exacerbate nonattainment status of the San Diego Air Basin. However, Caltrans will implement required construction-phase BMPs and mitigation measures to ensure project consistency with the requirements of the San Diego Air Pollution Control District and California Air Resources Board. In addition, Caltrans will adhere to policies, design/development strategies, and implementation measures in Section 5.1 of the NCC PWP/TREP (Energy Conservation and Emissions Reduction), as discussed below, to minimize energy consumption and VMT.

The project will not increase energy use or emissions beyond those evaluated in the NCC PWP/TREP and environmental documents as required by Design/Development Strategy (DDS) 1. Further, the project will adhere to DDS 2 to ensure grade changes in steep terrain areas are minimized in order to reduce the fuel consumed during vehicle transportation (e.g., gasoline and diesel fuel). DDS 3, DDS 4, DDS 7, and DDS 8 collectively require development and adherence to a Construction Energy Conservation Plan (ECP) that implements BMPs for controlling project-level emissions during construction. The ECP prepared for Stage 4 includes BMPs such as the use of low-sulfur fuel in all construction equipment, limitations on idling vehicles, and properly maintaining equipment. The ECP also includes best available control technologies such as the use of energy efficient construction equipment, minimizing amount of GHG-emitting construction materials, and recycling of construction debris. A Sustainability Plan, a Dust Control Plan, and a Traffic Management Plan have also been prepared to address energy conservation during construction.

The ECP complements the measures contained within the transportation demand management (TDM) measures in the Public Awareness Campaign for Stage 4, required

by DDS 6, to ensure energy conservation efforts are maximized. For example, a Public Outreach Plan has been developed and encourages carpooling and commuting during non-peak hours to minimize energy consumption during construction. Additionally, a toll-free hotline and website[4] has been established and will be updated regularly with construction updates, advisories, and notices. The hotline and website will provide tips to ease commutes during construction periods, and will be shared with elected officials and staff during briefings to ensure they have the ability to incorporate the number and web address in local resources and newsletters.

Energy use and emissions from construction activities would be addressed by adherence to Implementation Measure (IM) 5.1.1, requiring minimization of emissions from fugitive dust and particulate matter through compliance with Caltrans Standard Specification Section 14.9.03, or its future equivalent, relating to Dust Control, minimizing land disturbance and unnecessary vehicle and machinery activities, covering trucks when hauling dirt, using water trucks, and covering stockpiles.

In accordance with DDS 5 and SB 468, Caltrans and SANDAG have coordinated construction activities within the I-5 and LOSSAN transportation corridors in order to minimize energy consumption and impacts to sensitive coastal resources. Utilizing the Construction Manager General Contractor (CMGC) procurement method for Stage 4 improvements allows for the combination of various projects under one construction contract to foster greater collaboration and coordination between the major project components. Some benefits of this integration and described in the Construction Energy Conservation Plan include the project team is able to use excess materials produced in one area to satisfy deficiencies in other areas, coordinate schedules to reduce construction times, and consolidate debris recycling through shared equipment.

IM 5.1.2 encourages better management of the region's transportation resources in order to minimize congestion, improve reliability and safety, and enhance the overall productivity of the transportation system. Caltrans will achieve this through the placement of informational gathering systems such as closed-circuit television cameras and loop detectors, and electronic communications such as changeable message signs and ramp meters in appropriate locations that avoid impacts to significant coastal views. Technology to assist the traveling public and incident responders (Freeway Service Patrol) will further improve corridor efficiency and reduce congestion and idling, as required by IM 5.1.3.

Finally, IM 5.1.3 requires development and implementation of greening and resource conservation measures. Caltrans facilities will incorporate LED lighting or other energy-efficient lighting that has a long life span. The number of light fixtures on the highway will be minimized to limit light disturbance and reduce energy consumption further. Sustainable landscaping with native plants will be used. All irrigation systems will use reclaimed water and water-saving features like High Flow Detection to identify irrigation breaks and automatically turn off the water flow.

[4] http://www.keepsandiegomoving.com/North-Coast-Corridor/NCCHome.aspx

In conclusion, the Stage 4 specific project will avoid adverse impacts to air quality, as described above. Therefore, the Commission finds that the subject CDP is consistent with Section 30253 of the Coastal Act. In addition, by applying the policies, design/development strategies, and implementation measures included in Section 5.1.3 of the NCC PWP/TREP, the Commission finds that the subject NOID is consistent with the NCC PWP/TREP.

C. PUBLIC ACCESS AND RECREATION

Section 30210 of the Coastal Act states:

> *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.*

Section 30212(a) of the Coastal Act states:

> *Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except 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.*

Section 30212.5 of the Coastal Act states:

> *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.*

In addition, Policy 5.3.1 of the NCC PWP/TREP states:

> *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.*

As discussed in the NCC PWP/TREP, I-5 is the primary north/south highway in San Diego County that provides access to the coast and upland recreation areas, and a unique scenic, recreational traveling experience. As travel demand in the I-5 highway corridor continues to increase, so does the existing coastal access impediment of traffic congestion. Traffic congestion inhibits many potential carpool, vanpool, and bus transit

options, as these modes of travel currently are subject to the same traffic congestion that single occupancy vehicles experience on the I-5 highway.

The proposed project includes construction of one HOV lane in each direction of the highway from 0.3 miles north of Palomar Airport Road to 0.1 mile north of the Cassidy Street overcrossing, as shown in **Exhibit 5**. The HOV lane proposed for this segment of the NCC will connect with HOV lanes included in previous and future segments of the NCC PWP and is part of the greater PWP/TREP project improvements. The proposed HOV lanes will give priority to ride-sharing and public transit, reducing overall congestion, and protecting and facilitating public access. The corridor's large and varying user base of HOVs will be provided with a reliable transportation corridor. The HOV lanes would provide significantly more person-carrying capacity than the existing general-purpose lanes by promoting carpool, vanpool, and other transit alternatives. Furthermore, the HOV lanes will serve the large number of HOV recreational travelers who utilize I-5 on weekends to access coastal and inland recreation areas. The proposed Stage 4 project, in connection with other projects included in the PWP/TREP, will ensure maximum public access to and along coastal and inland resources is protected and enhanced, consistent with PWP/TREP Policy 5.3.1.

In accordance with DDS 1, the proposed project would not result in additional unidentified permanent or temporary impacts to coastal access and recreational resources beyond those previously assessed in the NCC PWP/TREP and project environmental documentation. Temporary impacts to public access and recreation from proposed highway improvements would occur during construction where construction traffic and staging areas disrupt travel patterns to the coast and inland recreation areas, particularly during the summer season when demand for coastal access is at its highest. These temporary impacts to public access and recreation would be localized, however, and would not disrupt corridor-wide resources at the same time.

Construction storage and staging for the project are proposed to occur at several locations. First, the future site of the Manchester Avenue Park-and-Ride facility was previously approved by the Commission for storage and staging for Phase 1/Stage 1 of the project. Since the proposed Stage 4 project schedule will overlap with the Stage 1 project, continued use of this site will reduce public access impacts by centralizing most of the necessary support work to a single location. The Commission also previously approved use of the Encinas Wastewater Facility as a materials storage site (CDP 6-15-2092/NCC-NOID-0005-15, and CDP 6-18-0204/NCC-NOID-0003-18), and Caltrans will continue to utilize that area for the proposed project. Caltrans will also utilize available areas adjacent to the highway for yard space and material stockpile, including areas adjacent to the Poinsettia Lane, Palomar Airport Road, and Oceanside Boulevard on and off-ramps.

To further minimize public access impacts, Demolition, Staging, Storage, Fueling, and Debris/Excess Graded Material Disposal Plans have been developed consistent with IM 5.3.2. These plans have been designed to ensure that public access and recreation areas are not adversely impacted by construction activities, and that the footprint of the proposed project activities is minimized. The Demolition Material Handling and Storage

Plan and the Debris Excess Graded Material Plan describe measures to plan and sequence construction work in a manner that has the least impact on public access, while maintaining public safety. A combination of fencing, cones, or flaggers will be posted at the necessary locations to control vehicle and pedestrian traffic as necessary for public and construction crew safety. No fencing or other barriers except as specifically authorized pursuant to the approved CDP/NOID will be placed in locations that would limit public access to pedestrian or bicycle trails or other public recreation areas. Construction debris will be collected as frequently as possible, stored in dumpsters, and hauled off-site on a regular basis, so as not to affect the public. Dumpsters will be placed away from pedestrian walkways or trails and will be properly maintained. All demolition work will be scheduled and performed in the most efficient manner, which will ultimately reduce the amount of time public access is impeded. All material will be processed and stored, away from the public, as quickly as possible.

In accordance with DDS 2, the improvements are generally consistent with phasing requirements identified in NCC PWP/TREP Chapter 6A for the initial phase (2010-2020), as identified in **Exhibit 3**. These requirements were designed to minimize impacts on public access due to construction, and to ensure a balanced approach to the transportation system improvements.

DDS 3 requires cooperative maintenance agreements for community enhancement projects. All facilities constructed in the Caltrans right-of-way will be maintained by Caltrans and all facilities constructed within local jurisdictions' right-of-way will be maintained by the local jurisdictions. **Special Condition 3** requires Caltrans to provide a cooperative maintenance agreement with the City of Carlsbad to ensure ongoing maintenance of the proposed Chestnut Avenue community enhancements located within the City's jurisdiction.

DDS 5 requires coordination efforts with the affected local jurisdiction be documented for project-specific designs, including development of public signage and education materials for temporary construction impacts and new public access improvements. Consistent with the Public Awareness Campaign, signage and education materials will identify access routes available during construction, as well as new public access improvements to be constructed. The webpage KeepSanDiegoMoving.com will include construction milestones, information about the road closure/openings, trail closure/openings, fact sheets, newsletters, maps, visual simulations, FAQs, PowerPoint presentations, and video information.

DDS 6 provides for incorporation of additional community enhancement projects if requested by the affected local jurisdiction. In consultation with the City of Carlsbad, proposed community enhancements for Stage 4 include roadway widening of Chestnut Avenue where it passes under the I-5 Freeway, as shown in **Exhibit 6**. The widening would accommodate new bike lanes and wider sidewalks on both sides of the street. An 11-foot buffer (8 feet for parking and 3 feet for buffer) is proposed between the bike lane and sidewalk. Early pre-consultation has occurred with the City of Carlsbad to design the bicycle and pedestrian facilities to connect with proposed City sidewalks and bike facilities. A similar community enhancement project is also being planned for the

interstate undercrossing at Carlsbad Village Drive, and will be included in a future stage of the PWP.

IM 5.3.1 requires a project-specific, final construction schedule identifying dates of construction and planned road/access closures. The project is scheduled to begin in fall 2019 and be completed by the end of 2021. A final construction schedule identifying dates of construction and planned road/access closures, including anticipated ramp closures is currently being developed and **Special Condition 1** requires it to be submitted prior to commencement of construction. To avoid adverse effects on traffic flow on I-5 and local arterials, no more than one lane in each direction of I-5 will be allowed to be closed during peak travel hours.

In conclusion, the Stage 4 Project will result in temporary impacts to public access and recreation during construction; however, the addition of HOV lanes to the subject stretch of Interstate 5, as well as the multi-modal community enhancements at the Chestnut Avenue undercrossing, will enhance the corridor's existing transportation system and thereby improve public access to and along the coast, as described above. By applying the policies, design/development strategies, and implementation measures included in Section 5.3.3 of the NCC PWP/TREP, as well as the required special conditions, the Commission finds that the subject NOID is consistent with Section 5.3.3 of the NCC PWP/TREP.

D. MARINE RESOURCES – WATER QUALITY AND WETLANDS

Section 30230 of the Coastal Act states:

> *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.*

Section 30231 of the Coastal Act states:

> *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.*

In addition, Policy 5.4.1 of the NCC PWP/TREP states:

> *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 of the NCC PWP/TREP states:

> *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 of the NCC PWP/TREP states:

> *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.*

Wetland Impacts

Stage 4 includes permanent impacts to approximately 0.01 acres of wetland habitat in Agua Hedionda Lagoon, within the Commission's retained jurisdiction. These impacts are associated with the replacement of two culvert systems that drain runoff from the southern abutment of Agua Hedionda Lagoon Bridge. Although the culvert systems are located on the upland slopes on either side of the freeway, replacing the culverts involves replacing a small quantity of rock slope protection (3 cubic yards for the northbound culvert, and 7.2 cubic yards for the southbound culvert) on the un-vegetated, mudflat shoreline directly below the culvert outflows in order to minimize erosion of the lagoon shoreline. Though these impacts are located within the Commission's retained jurisdiction, they are associated with culvert replacements previously anticipated and approved as part of the NCC PWP/TREP.

Coastal Act Section 30233(a) only permits the diking, filling, or dredging of wetlands where there is no feasible less environmentally damaging alternative, where feasible mitigation measures have been provided to minimize adverse environmental effects, and when it is limited to certain uses. Through its approval of the NCC PWP/TREP[5], the Commission found that the proposed wetland fill associated with the highway project, by itself, would not be an allowable use, and that the NCC PWP/TREP as a whole presented conflicts among Chapter 3 policies. Therefore, the Commission employed the conflict resolution provisions of Coastal Act Sections 30007.5 and 30200(b) to permit limited dredging and filling of wetlands, despite the inconsistency with Section 30233.

[5] https://documents.coastal.ca.gov/reports/2014/8/W17a-s-8-2014.pdf.

When the Commission identifies a conflict among Coastal Act policies, Section 30007.5 requires the Commission to resolve the conflict "in a manner which on balance is the most protective of significant coastal resources." The Commission's findings for PWP-6-NCC-13-0203-1 stated that approval of the NCC PWP/TREP would result in the fill of approximately 24 acres of wetlands despite not being one of the allowable uses identified in Section 30233. However, the Commission found that denial of the NCC PWP/TREP would have been inconsistent with mandates of other Coastal Act policies and would have resulted in significant adverse impacts to public access, biological resources, water quality, and air quality because it would have preserved the antiquated transportation system in San Diego County's North Coast Corridor. Thus, the Commission found a conflict among Coastal Act policies, but found that the project features associated with the NCC PWP/TREP, including the subject impacts within the Commission's retained jurisdiction, was the most protective of coastal resources for purposes of the conflict resolution provisions of Coastal Act Sections 30007.5 and 30200(b).

The proposed replacement of approximately 10 cubic yards of rock slope protection presents a minimal impact to Agua Hedionda Lagoon, and is designed to minimize the erosive effects of drainage on the lagoon shoreline. Nevertheless, DDS 6 and IM 5.4.10 require impacts to lagoon habitat to be fully mitigated pursuant to the REMP. The REMP provides for compensatory mitigation to enhance and restore the biodiversity and habitat functions on a regional scale in advance of unavoidable project impacts. The project-specific impact assessment of wetland habitats was prepared pursuant to the REMP for the Stage 4 improvements. The assessment determined that adequate advanced mitigation is available as required by the REMP. Specifically, the permanent impacts to 0.01 acres of wetland habitat on the southern edge of Agua Hedionda Lagoon will be mitigated at a 1:1 ratio by salt marsh reestablishment at the Hallmark West mitigation site. As required by DDS2, a Habitat Mitigation and Monitoring Plan (HMMP) was finalized for the Hallmark West site in November 2014, which specifies the design and implementation of mitigation measures, including tidal salt marsh habitat creation and revegetation, protection during construction, performance standards, maintenance criteria, and monitoring requirements. The REMP Working Group has reviewed and approved this final HMMP, as required by DDS 2. The Hallmark West mitigation site was constructed and planted according to the HMMP in late 2015 and early 2016, and has met its second, third, and fourth credit release criteria after the first two years of monitoring were complete. The REMP Group approved the third and fourth credit release for the wetland in February 2019. The 0.01 acres of mitigation credit has been debited from the available released credits for Hallmark West.

Water Quality

Coastal Act Section 30231 and Policy 5.4.3 of the NCC PWP/TREP require that biological productivity and the quality of coastal waters shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, and controlling runoff. DDS 1 requires the project to be sited and designed to protect and restore natural hydrologic features such as groundwater recharge areas, natural stream corridors, floodplains, and wetlands. DDS 3 requires a project-level analysis of potential water quality and marine habitat impacts of

improvements to ensure runoff management is incorporated early in site design planning that integrates 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. The project-level analysis required by DDS 3 includes field surveys of potential surface water impacts, identification of potentially substantial alteration of water-flow and drainage patterns and evaluation of designs and construction techniques to minimize sedimentation, analysis of additional impervious surface and potential mitigation, analysis of future requirements for load reductions of project generated contaminants, wetland delineations, and an analysis of future sea level rise scenarios.

In accordance with Coastal Act Section 30231 and Policy 5.4.3 of the NCC PWP/TREP, the subject project has been sited and designed to protect and restore the natural hydrologic features of the three watersheds within its drainage area and minimize the potential for adverse impacts to water quality. The technical studies required by DDS 3 have been partially prepared for Stage 4. In order to capture stormwater runoff and pollutants from the existing and new highway pavement, Caltrans has submitted a preliminary Stormwater Treatment Exhibit for the watersheds within the project limits: Encinas Creek, Agua Hedionda Lagoon, and Buena Vista Lagoon **(Exhibit 8)**. The preliminary Stormwater Treatment Exhibit identifies five bio-infiltration swales and 15 new polishing/landscaping areas (permeable surface).

Caltrans has committed to provide improvements that, in aggregate, increase the total area where stormwater runoff is treated within the drainages of each watershed to the targets set forth in NCC PWP/TREP Section 5.4 (Figure 5.4-1B: Water Quality Treatment Areas; **Exhibit 8**). The targets set forth in the NCC PWP/TREP are based on the ultimate widening project that Caltrans plans to carry out in a future phase of the I-5 NCC project. The targets are also based on preliminary designs Caltrans completed in 2014, which relied more heavily on massive retaining walls cut into slopes adjacent to the highway and large bioswales between the highway shoulders and the retaining walls. Because the subject project does not include the extra lanes, buffer, or shoulders associated with the ultimate widening envisioned by the NCC PWP/TREP, most of the retaining walls are not being constructed at this time and thus there is less space available for water quality treatment devices adjacent to the highway.

Caltrans' preliminary Stormwater Treatment Exhibit for the subject project generally exceeds the targets set forth in the NCC PWP/TREP. For the Encinas Creek watershed, the NCC PWP/TREP target is for new infrastructure to capture and treat 80% of the stormwater and pollutants that are discharged onto new pavement associated with the new highway lanes and shoulders; Caltrans' preliminary Exhibit identifies 83% treatment. For the Agua Hedionda Lagoon watershed, the NCC PWP/TREP target is 0% treatment of new pavement; Caltrans' preliminary Exhibit identifies 191% (this means all of the new pavement will be treated, plus some of the existing pavement that is currently untreated). For the Buena Vista Lagoon watershed, the NCC PWP/TREP target is for new infrastructure to capture and treat 98%, and the preliminary Exhibit identifies 178% treatment. To further maximize treatment in Stage 4, the bio-infiltration swales will also provide stormwater treatment for approximately 14.5 acres of privately developed car lots

adjacent to the freeway, though this treatment does not count toward the NCC PWP/TREP treatment targets. The NCC PWP/TREP targets reflect the anticipated water treatment calculations for the NCC PWP/TREP project as a whole, whereas the treatment percentages identified in the preliminary Exhibit are for Phase 1 only. Caltrans anticipates constructing further water quality treatment as part of future phases, which would need to meet or surpass the PWP requirements.

Special Condition 2 will permit Caltrans to finalize the required SWDR consistent with design/development strategies and implementation measures requiring improvements to minimize impacts to coastal waters through site design and planning and incorporation of BMPs designed to control the volume, velocity, and pollutant load of stormwater leaving the developed areas. In accordance with DDS 2 and DDS 3, which describe that all development shall be designed and managed to maintain or enhance on-site infiltration of runoff, the project has maximized infiltration opportunities through the use of soil augmentation. The quantification of those efforts for treatment BMPs and treatment through the natural environment through the use of the SWDR's infiltration tool will ensure that water quality treatment achieves the maximum feasible treated volume of stormwater runoff from the highway. In accordance with IM 5.4.11, Caltrans has coordinated with Commission staff to refine the project design to include additional stormwater treatment BMPs.

Pursuant to DDS 9, the final SWDR will address post-construction treatment BMPs as well as enhanced infiltration through adjacent natural environment opportunities in order to protect and restore coastal water quality. The SWDR will also fulfill the detailed requirements of IM 5.4.4, IM 5.4.8, and IM 5.4.13 through inclusion of treatment BMPs. Pursuant to IM 5.4.12, the SWDR contains source control BMPs and measures to ensure that vegetation will be utilized to provide water quality benefits through vegetative interception, pollutant uptake, transpiration, and erosion control per IM 5.4.16, including avoidance and minimization measures, preservation of existing vegetation, landscape protection areas, and treatment BMP strategies. Pursuant to DDS 10, DDS 12, and DDS 13, all available opportunities to treat impervious highway surfaces have been implemented, including newly created impervious areas and existing impervious surfaces.

DDS 11, DDS 21, and IM 5.4.14 require use of Low Impact Development (LID) strategies to minimize alteration of the site's natural hydrologic conditions and to 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. LID measures for the Stage 4 project include grading slopes to blend with natural terrain and decrease the need for dikes, promoting sheet flow to vegetated areas that can provide water quality benefits and promote infiltration, designing permanent drainage facilities that mimic the existing drainage pattern of the area, constructing permanent vegetated drainage ditches to decrease the velocity of discharge plus decreasing the volume of discharge by promoting infiltration and allowing for pollutant removal, and maintaining existing vegetated areas.

In accordance with IM 5.4.18, all post-construction treatment control BMPs and ancillary drainage features will be inspected annually and records of inspection and maintenance will be submitted annually to the Commission. In addition, per the current National Pollutant Discharge Elimination System (NPDES) Stormwater Permit, Caltrans will use a watershed-based database to track and inventory treatment BMPs and treatment BMP maintenance. A summary of the tracking system along with a report on maintenance activities for post construction BMPs shall be included in the annual report to the Commission. 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. Additionally, DDS 8 addresses the standard maintenance requirements for the vegetated stormwater basins, vegetated filter strips, vegetated swales, and other natural drainage features to be installed in order to maintain their intended function. This strategy explicitly states that these devices are not to be treated as wetlands for the purposes of the NCC PWP/TREP because their primary function is to protect water quality. Thus, no maintenance activities for the stormwater treatment BMPs will require operating in any existing wetland. Further, the bio-infiltration swales are designed with native grass sod, which does not require maintenance.

As required by **Special Condition 2**, a Stormwater Pollution Prevention Plan (SWPPP) will be prepared and submitted for review and written approval by the Executive Director prior to commencement of any construction activities. In accordance with DDS 4, the SWPPP and NPDES permits, other applicable jurisdictional requirements, and the provisions in the NCC PWP/TREP protecting water quality will be implemented. Pursuant to DDS 5, the SWPPP contains a spill prevention and emergency response plan. In accordance with DDS 20, the SWPPP will ensure debris will be contained and will not enter lagoons or other waterbodies.

Pursuant to 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-stormwater management, and waste management and materials pollution control. Plastic netting will be avoided. Additionally, the construction and staging plans ensure that the project will preserve 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 per IM 5.4.5. IM 5.4.9 requires fueling of construction equipment to occur in designated areas at a distance no less than 100 feet from the lagoon, river, or other waterbodies and associated plant communities to preclude adverse water quality impacts. In constrained circumstances (e.g., heavy/large equipment such as cranes) where the 100 ft. buffer is not feasible, additional BMPs will be implemented to maximize the protection of coastal waters during fueling.

In conclusion, Stage 4 consists primarily of improvements to existing transportation facilities located in previously developed and disturbed areas within Caltrans right-of-way; however, in order to expand the highway, rehabilitate culverts and drainages, and install associated drainage improvements, some impacts to wetlands are unavoidable. The

project components that impact wetlands would not, on their own, be approvable. However, these components are part of a larger NCC PWP/TREP project that the Commission has found, through conflict resolution, on balance, to be most protective of significant coastal resources. As a result, the Stage 4 project is consistent with the Coastal Act. Project plans and documents have been reviewed and approved by Coastal Commission staff water quality specialist Michael Sandecki. In addition, the specific project includes mitigation consistent with the REMP that will significantly enhance and restore wetland habitat resources throughout the NCC. The program provides for advanced mitigation opportunities that will allow for habitat establishment or significant restoration of degraded habitat prior to project implementation.

Therefore, the Commission finds that approval of the proposed CDP, as conditioned, is consistent with the water quality policies of the Coastal Act. In addition, by applying the policies, design/development strategies, and implementation measures included in Section 5.4.3 of the NCC PWP/TREP, the Commission finds that the subject NOID, as conditioned, is consistent with the NCC PWP/TREP.

E. ENVIRONMENTALLY SENSITIVE HABITAT AREAS

Section 30240 of the Coastal Act states:

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.*

Section 30107.5 of the Coastal Act states:

> *"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.*

Policy 5.5.1 of the NCC PWP/TREP states:

> *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.*

Coastal Act Section 30240 sets forth a strict limitation on the type of development and uses that are permitted to occur in environmentally sensitive habitat areas (ESHA), and requires that new development adjacent to ESHA be compatible with the continuance of the ESHA and be sited and designed to prevent impacts that would significantly degrade the ESHA. Similarly, 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.

Portions of the Stage 4 Project, including highway shoulder widening, slope grading and stabilization, culvert and downdrain rehabilitation, and stormwater treatment infrastructure will occur in areas containing ESHA, and these uses are not considered resource-dependent uses under the Coastal Act. These improvements within ESHA that are not exclusively resource-dependent uses are inconsistent with the limited uses permitted in EHSA pursuant to Coastal Act 30240. Thus, the proposed improvements can only be found consistent with the Coastal Act if they are part of a project that presents a conflict among Coastal Act policies and the application of the conflict-resolution provision of Coastal Act Section 30007.5 reveals that the project would, on balance, be the alternative that is most protective of significant coastal resources. In addition, it must be demonstrated that there are no feasible less-damaging alternatives and that feasible mitigation measures have been included to minimize significant adverse environmental impacts. As detailed in the findings above and in the Commission's original approval of the NCC PWP/TREP, this aspect of the project is, in fact, a small component of a much larger project for which the Commission has conducted a conflict-resolution analysis. In so doing, the Commission found that approval of the PWP, notwithstanding its inconsistencies with Coastal Act Section 30240, presented conflicts among Coastal Act policies and was, on balance, most protective of significant coastal resources for purposes of the conflict resolution provisions of Coastal Act Section 30007.5. The proposed project has incorporated all of the design/development strategies and implementation measures in the NCC PWP/TREP to minimize and mitigate adverse environmental impacts; and therefore, can rely upon the conflict resolution findings contained within the original review of the NCC PWP/TREP.

The majority of the proposed construction activities will be located within the developed interstate right of way. The only areas of the project that involve construction outside of the existing roadway are between Palomar Airport Road and the southern abutment of the Agua Hedionda Lagoon Bridge, and between Las Flores Drive and SR-78. These areas currently consist of developed, ornamental landscaping, or nonnative vegetation, including nonnative grassland and nonnative woodland (Eucalyptus, pepper tree, pine trees), and a concrete and earthen lined drainage ditch. Thus, no sensitive plant or wildlife species will be impacted by the roadway widening, and no wildlife corridors will be impacted.

Installation of bioswales and replacement of damaged culverts will result in some upland impacts to ESHA. In total, there will be permanent impacts to 0.01 acres of coastal sage scrub and 0.14 acres of disturbed coastal sage scrub on the slopes immediately south of

the Agua Hedionda Lagoon Bridge. In addition, 0.01 acres of disturbed coastal sage scrub will be temporarily impacted in this area. All upland ESHA impacts occur within the footprint of the I-5 NCC covered in the PWP and Final Environmental Document.

Where the proposed improvements would impact ESHA, the REMP approved as part of the NCC PWP/TREP provides for compensatory mitigation to enhance and restore the biodiversity and habitat functions on a regional scale within the NCC project area in advance of unavoidable project impacts. The REMP includes options for allocating funding from SANDAG for regionally significant mitigation opportunities, including the establishment, restoration, enhancement, preservation, and long-term management of coastal wetlands and adjacent riparian areas, other transitional habitats, and upland areas. While these mitigation efforts do not include traditional in-kind habitat replacement mitigation ratios, the approved program is intended to restore and enhance an integrated ecosystem that provides habitat for birds, fish, and benthic organisms, which would not only compensate for the loss of ESHA that would occur from the PWP improvements, but would provide for enhancement and expansion of ESHA throughout the North San Diego County coastal zone.

The NCC PWP/TREP further provides an Implementation Framework and Phasing Plan, which coordinates the timing of project components and will ensure that transportation projects do not outpace habitat restoration and enhancement mitigation projects in the corridor. Upland habitat mitigation parcels have been purchased to ensure no net loss of upland habitat and to support special-status plant and animal species. For the near-term phase, the following mitigation sites are identified in the NCC PWP/TREP: San Dieguito W19, Hallmark (East & West), Dean, Batiquitos Bluffs, Deer Canyon II, Laser, La Costa, the San Elijo Lagoon Restoration Project, and the Lagoon Management/Endowment/Regional Dredging Program.

For this project, mitigation proposed to offset the approximately 0.15 acres of permanent impacts to native upland vegetation will be debited from the Dean mitigation site. Permanent impacts will be mitigated at a 1:1 ratio with credits from this site. As required by DDS 2, a Habitat Mitigation and Monitoring Plan (HMMP) was finalized for the Dean site in April 2015, which specifies the design and implementation of biological resources mitigation measures, including habitat replacement and revegetation, protection during construction, performance standards, maintenance criteria, and monitoring requirements. The REMP Working Group has reviewed and approved this final HMMP, as required by DDS 2. The Dean mitigation site was constructed and planted according to the HMMP in late 2014 and early 2015, and has met its second, third, fourth, and fifth year goals. Sign-off on the site was requested in August 2019 for the release of additional mitigation credits. Even without the release of this additional credit phase, the Dean site has enough mitigation available currently to meet the needs of the proposed permanent upland impacts.

The project will also result in temporary impacts to 0.01 acres of upland ESHA (coastal sage scrub), which will be mitigated by the preservation of high-quality native habitat under threat of development. These long-term temporary impacts will be mitigated at a 2:1 ratio for a total of 0.02 acres of mitigation at the Batiquitos Bluffs site. Habitat

preservation credits are intended as mitigation only for long-term temporary impacts resulting from project impacts by ensuring long term preservation of upland sites in advance of any construction impacts. The draft Long Term Management Plan (LTMP) for Batiquitos Bluffs was circulated in November 2018, and Commission staff provided comments on the draft in December 2018. Caltrans is still waiting for comments from the U.S. Fish and Wildlife Service to finalize the LTMP. Per the REMP credit release schedule for preservation sites, 25 percent of the total is available after preparation of the draft LTMP. There are 39.9 acres of ESHA at Batiquitos Bluffs that are preserved, and with the preparation of the draft LTMP 9.98 acres of credit are available. A total of 3.5 acres are still available from the first release of credits, and 0.02 acres of mitigation credit has been debited from these available credits.

The NCC PWP/TREP includes design and development strategies and implementation measures to protect sensitive vegetation that may be impacted during project construction. In accordance with DDS 3, impact reduction measures for sensitive coastal upland and wetland habitats have been incorporated into the project, including construction monitoring. Additionally, DDS 4 requires mitigation measures to protect sensitive vegetation communities and rare plants, including preconstruction focused surveys, construction monitoring, relocation of plants, seed collection, plant propagation, and salvage of plant species to a suitable mitigation site. Further, and as required by DDS 4, focused preconstruction surveys have been conducted to assure that the locations of all sensitive plant species in the development footprint and the surrounding 100 foot buffer have been identified and will be mapped on construction drawings.

Additionally, the following measures will be implemented to avoid and minimize impacts to sensitive plant species during project construction and revegetation: all feasible efforts will be made to eradicate invasive plant species (IM 5.5.3 and DDS 5); seeds will be collected and plants will be salvaged for relocation to the extent practicable (IM 5.5.2 and DDS 4); all native habitats outside the construction limits will be temporarily fenced with orange snow fences during construction (IM 5.5.1); cut slopes will be revegetated with a California native plant palette consistent with the Design Guidelines for the I-5 North Coast Corridor; bio-infiltration swales and detention basins are designed with native grass sod, which does not require maintenance; landscaping plans include only species native to southern California such that the planted areas will be compatible with surrounding natural areas; seeding of native upland habitats will be completed sometime from October to February to ensure the seed has proper conditions for germination (IM 5.5.1); top soil from areas with coastal sage scrub, maritime succulent scrub, and maritime chaparral that do not have high weedy species will be stockpiled and used during the revegetation effort to aid in revegetating slopes with native habitats (IM 5.5.1); and all temporary impact areas will be revegetated with native species and restored to pre-existing conditions.

The NCC PWP/TREP also includes design/development strategies and implementation measures to protect sensitive wildlife species during project development. Focused surveys for Stage 4 identified no sensitive wildlife species in the project footprint**.** However, the following mitigation measures will be implemented to minimize impacts to wildlife species prior to and/or during construction, as required: vegetation clearing prior

to onset of construction impacts will be implemented to minimize the wildlife use of areas slated for construction; clearing and grubbing of native wetland, riparian and upland habitats will occur outside of the breeding season (February 15 to September 15); all native or sensitive habitats outside and adjacent to the permanent and temporary construction limits will be temporarily fenced during construction with orange plastic snow fence or stakes and flagging with no disturbance allowed in these areas (DDS 6); lighting used at night for construction will be shielded away from ESHA; dust generated by project operations will be controlled with BMPs; and a qualified biologist will be made available for both the preconstruction and construction phases to review grading plans, address protection of sensitive biological resources, monitor ongoing work, and maintain communications with the resident engineer, to ensure that issues relating to biological resources are appropriately and lawfully managed (IM 5.5.8).

The introduction of one additional light pole in close proximity to Buena Vista Lagoon, as shown in **Exhibit 7**, has the potential to adversely impact biological resources. Artificial lighting at night could alter or disrupt feeding, roosting, breeding, foraging, migrating, and nesting of wildlife and special-status species. Additional pole lights would also increase the risk of predation by raptors that use pole lights as perches to hunt for wildlife in the lagoon, including special-status species. In order to offset these impacts, Caltrans has proposed project features to limit unnecessary light within the Buena Vista Lagoon viewshed. Currently unshielded light fixtures will be upgraded to shielded LED lights to minimize spillover impacts to biological resources in conformance with NCC PWP/TREP policies, and LED lights will be limited to a correlated color temperature of 3,000 Kelvin to avoid impacts. The existing northbound two-post truss structure with four illuminated sign panels will be replaced with a two-post tubular structure with three reflective sign panels and no illumination. Bird spikes will be added to the structure, pole lighting, and sign panels to discourage predatory birds within the lagoon habitat. Moreover, the existing southbound sign structure/pole light will be removed from the southern bridge rail and replaced with a tubular sign structure and standard pole light located 20 feet south of the bridge rail.

At Agua Hedionda Lagoon, no freeway lighting is proposed within the lagoon viewshed. The project will remove an illuminated median sign from the center of the lagoon viewshed, and will replace it with an exit sign in the right shoulder approximately 0.5 miles to the south. This new, smaller sign will not be illuminated and will be outside of the Agua Hedionda Lagoon viewshed, resulting in a net decrease of lighting within the lagoon viewshed.

In conclusion, the Stage 4 Project consists primarily of improvements to existing transportation facilities located in previously developed and disturbed areas within Caltrans right-of-way; however, in order to expand the highway and install associated drainage improvements, some impacts to ESHAs are unavoidable. These project components that impact ESHAs would not, on their own, be approvable. However, these components are part of a larger project that the Commission has found, through conflict resolution, on balance, to be most protective of significant coastal resources. As a result, the NCC PWP/TREP includes these components and the project as a whole is consistent with the Coastal Act. In addition, the specific project includes mitigation consistent with

the REMP that will significantly enhance and restore upland habitat resources throughout the NCC. The program provides for advanced mitigation opportunities that will allow for habitat establishment or significant restoration of degraded habitat prior to project implementation. Caltrans has also secured all necessary permits and approvals from other relevant state and federal resource agencies, including the U.S. Army Corps of Engineers, the California Regional Water Quality Control Board, U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and National Marine Fisheries Service.

Therefore, the Commission finds that approval of the proposed CDP, as conditioned, is consistent with Coastal Act Section 30240. In addition, by applying the policies, design/development strategies, and implementation measures included in Section 5.5.3 of the NCC PWP/TREP, the Commission finds that the subject NOID, as conditioned, is consistent with the NCC PWP/TREP.

F. VISUAL RESOURCES

Section 30251 of the Coastal Act states:

> *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.*

In addition, Policy 5.7.1 of the NCC PWP/TREP states:

> *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.*

Design/Development Strategy 5 in Section 5.7.3.3 of the NCC PWP/TREP states:

> *Night lighting should be the minimum required for operations and safety and should be excluded from viewsheds containing scenic resources, including at lagoon crossings, wherever feasible. All lights should be hooded and directed to the area where the lighting is required to minimize excess shedding of waste light. New and replacement facility lighting should use updated, energy efficient*

lighting that is better directed to avoid/minimize visual impacts and nighttime glare.

Coastal Act Section 30251 provides for the protection of scenic and visual resources within the Coastal Zone. Additionally, NCC PWP/TREP Policy 5.7.1 provides that development of NCC transportation facilities 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 also 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.

Coastal visual resources within the project area that could be affected by Stage 4 include public views of natural coastal features such as the Pacific Ocean, Agua Hedionda Lagoon, Buena Vista Lagoon, and the surrounding natural coastal topography and open space character. Although a majority of the project will be located within existing rights-of-way directly adjacent and contiguous to existing facilities, improvements that could potentially impact views include construction of new and extended paved surfaces from widening for HOV lanes, new signage, changeable message signs, signals, fencing, traffic monitoring equipment, autonomous vehicle antennas, lighting, retaining walls, soundwalls, grading, and vegetation removal **(Exhibit 5)**. However, the project has been sited and designed in accordance with the required design/development strategies and implementation measures in order to avoid and minimize impacts to visual resources to the maximum extent feasible.

In accordance with DDS 1, the project has been sited and designed such that impacts of grading, operational activities, and direct light on public views outside of the transportation facilities have been limited to the maximum extent feasible. The design solutions that have been incorporated into the project, per DDS 5, include minimization of grading, landform alteration, and vegetation removal; landscape treatments comprised of native trees, shrubs, and groundcover along the edge of the right-of-way to provide partial screening and to visually integrate the right-of-way into surrounding areas; addressing potential night-lighting impacts by limiting, shielding and directing lights to only focused areas that are required for operations and safety; and revegetating areas disturbed by grading activities.

Soundwalls and Retaining Walls

Soundwalls are one of the project components considered to have the potential for the greatest impact on the character of the corridor, as identified in the NCC PWP/TREP. The proposed project will construct new soundwalls at three locations: along northbound I-5 just south of Tamarack Avenue in Carlsbad (8 feet high and 545 feet long), along northbound I-5 just north of Las Flores Drive in Carlsbad (10 feet high and 433 feet long), and along southbound I-5 just north of Las Flores Drive in Carlsbad (16 feet high and 584 feet long). All three soundwalls will provide a reduction in noise-level for single-family and multi-family residences adjacent to the highway right of way. The two soundwalls along northbound I-5 will be located within Caltrans right-of-way, while the soundwall along southbound I-5 will be located on private property. At some locations,

existing landscaped buffers between the highway and adjacent land uses will be reduced in size or removed and replaced in order to construct a soundwall.

There are no existing coastal views available in the locations of the proposed soundwalls, so they would have no visual resource impacts. Nevertheless, the project incorporates design concepts from the I-5 NCC Project Design Guidelines to preserve the natural and community visual characteristics of the corridor. As required by IM 5.7.1, all soundwalls are set back from the edge of highway and softened by a landscape buffer between the wall and highway barrier. Soundwalls within Caltrans right-of-way are solid masonry block. Soundwalls on private property have architectural detailing compatible with the residential development. Walls are constructed of bluff colored masonry block and transparent acrylic panels. All soundwalls will be enhanced with blocks of different sizes and textures.

The Stage 4 project includes the construction of one retaining wall (933 feet long and 4 feet tall), which will reinforce the northbound I-5 outside shoulder above a concrete drainage ditch **(Exhibit 5)**. The retaining wall will not be visible from the roadway, and therefore will not affect the visual experience of highway travelers. Nevertheless, the proposed wall was designed in accordance with the required design/development strategies and implementation measures outlined in the NCC PWP/TREP.

In accordance with DDS 5, areas that are disturbed by grading associated with the construction of new soundwalls and retaining walls will be seeded and/or planted to blend with the surrounding vegetated areas. Landscaping plans include only species native to Southern California such that the planted areas will be compatible with surrounding natural areas. Landscaping will include native drought-tolerant trees, shrubs, groundcover, and hydroseeding. Native vegetation will be placed in appropriate locations and densities consistent with adjacent natural settings. Further, as required by IM 5.7.1 and the I-5 NCC Project Design Guidelines, the following highway landscape design features have been integrated into the project to avoid and minimize visual resource impacts: native landscaping is planned in all areas adjacent to native habitat; highway planters will be installed within the highway facility wherever there is available width; oleanders currently planted in the median for visual screening purposes will be replaced with native desert broom; bioswales will be planted with native grasses; and no trees or tall shrubs will be planted that could disrupt scenic views to the lagoons.

Proposed drainage features such as culverts and bioswales also propose minor visual impacts to the landscape aesthetic. As required by IM 5.7.1, the following drainage and water quality design features have been integrated into Stage 4 to minimize visual impacts: bioswales are designed to appear as natural landscape features; and concrete drainages, ditches, aprons, and headwalls are located, designed and colored to be unobtrusive in appearance.

Lighting
The project would include new lighting and would provide an opportunity to replace existing facility lighting with updated energy-efficient lighting which is better directed to minimize visual and biological impacts. Specifically, the project will include only night

lighting that is the minimum required for operations and safety, as required by DDS 5 and as depicted on NCC PWP/TREP Figures 5.7-1E through 5.7-1G.

The number of light fixtures overall for the project have been minimized to limit light disturbance and reduce energy consumption. The use of pole lighting on the highway is the minimum needed for operation and safety. Median lighting consisting of single-mast or dual-mast arm light poles is proposed at the HOV ingress/egress area. Median lighting is required in the HOV weaving section to meet safety lighting requirements. In addition, the Stage 4 HOV lane is designed to be continuous access (open to entering and exiting traffic). Because the HOV lane is open to traffic movement throughout most of the project segment, there will be fewer points of concentrated ingress and egress, thereby reducing the need for median lighting in continuous access zones. Instead, median lighting will be concentrated at the beginning and end of the continuous access HOV lanes.

The I-5 North Coast Corridor projects will use a new type of technology for freeway lighting (LED Roadway III type with house side shielded lighting) to reduce visual impacts. All lights shall be shielded and directed downward to the target area to minimize spill-over. Fixtures will use precise light beam angles and linear spread lenses to control the distribution of light while avoiding glare and light trespass into the sky.

All highway fixtures and traffic signals will use light emitting diode (LED) lights with extended fixture lifespan. All lights will have low correlated color temperatures to minimize biological impacts in adjacent natural areas. The project proposes 3,000 Kelvin LED lighting at a slightly higher wattage instead of the traditional 4,000 Kelvin freeway lighting to meet environmental concerns while providing sufficient illumination. This type of lighting is consistent with what the Commission has previously approved for prior stages of the NCC. As part of the performing metric update, Caltrans will continue to study and to retrofit corridor lighting with any future technology that can reduce visual and environmental impacts.

Signage lighting is also the minimum required for operations and safety. Currently, all existing overhead sign panels are illuminated. To reduce night lighting impacts, proposed exit signage will avoid illumination by using reflective lettering rather than lighting fixtures. HOV signs will be illuminated to meet safety requirements, but have been design to minimize visual impacts and eliminate light spillover **(Exhibit 7)**. HOV signage will include one central LED light instead of two lights, to focus the light spread on the sign panel only. The fixture has been redesigned with side shielding and tilted toward the sign. The color temperature has also been reduced from 6,000 to 4,500 Kelvin for this new fixture. These innovative design features were previously developed and approved by the Commission for previous stages of Phase 1.

Typical lighting standards (e.g., type, height, dimension, intensity, and location, as applicable), identified in Appendix B of the NCC PWP/TREP, are proposed. Per IM 5.7.1 and the I-5 NCC Project Design Guidelines, the following lighting design features have been integrated into project design to minimize visual impacts: freeway lighting will have a galvanized finish to be a visually unobtrusive color and be consistent with existing

lighting in the corridor; advance warning flashing beacons at ramp meters are outside of the viewshed containing scenic resources; all project lighting is shielded and directed downward to the target area to minimize spill-over and avoid or minimize visual impacts and nighttime glare; all new and replacement lighting uses updated, better directed, low temperature, energy efficient LED fixtures; and electrical and signal equipment at ramp termini will be placed in visually unobtrusive locations.

Under Policy 7.1 and DDS 5.7.3.3, special consideration is given to lighting within lagoon viewsheds. The Stage 4 project proposes various changes to the existing freeway lighting within the Buena Vista Lagoon and Agua Hedionda Lagoon viewsheds. Within the Buena Vista Lagoon viewshed, it is not feasible to exclude lighting from the viewshed at the Las Flores Drive off-ramp and the SR-78 connector ramps and meet minimum requirements for operations and safety (see NCC PWP/TREP Figure 5.7-1F). Currently, the freeway consists of four through lanes and an auxiliary lane from Las Flores Drive to the eastbound SR-78 connector ramp. The project will construct a single HOV lane and reconfigure the auxiliary lane to begin 800 feet south of the Las Flores on-ramp and reconfigure the ramp to merge into the auxiliary lane. The SR-78 connector ramp will be reconfigured to trap two lanes. Reconfiguring the auxiliary lane better utilizes the existing freeway capacity and is consistent with the configuration shown in the final environmental document. In the existing configuration, drivers entering from the Las Flores on-ramp wanting to stay on I-5 northbound must cross one lane. The new configuration will require two lane changes within 920 feet. The proposed pole light is a necessary safety requirement to increase visibility in a key decision area for drivers. As a result, one new pole light is required along northbound I-5 near the Las Flores on-ramp to illuminate the ramp in the new merging area **(Exhibit 7)**. As discussed above, Caltrans will mitigate this impact through lighting modifications designed to limit unnecessary light within the Buena Vista Lagoon viewshed.

At Agua Hedionda Lagoon, no freeway lighting or overhead signs are proposed within the lagoon viewshed. The project will remove an illuminated median sign from the center of the lagoon viewshed, and will install an exit sign at the right shoulder about 0.5 miles south of the median sign. This new, smaller sign will not be illuminated and will be outside of the Agua Hedionda Lagoon viewshed, resulting in a net decrease of lighting within the lagoon viewshed. Additionally, a traffic monitoring equipment pole along the northbound shoulder in the Agua Hedionda Lagoon viewshed will be removed, further reducing existing impacts to the lagoon viewshed.

Overall, Caltrans has worked collaboratively to minimize the number of lights needed, while still meeting safety requirements, and highway lighting has been sited and designed to limit direct light on public views outside of the transportation facilities to the maximum extent feasible. The need, location, and spacing of each pole light has been evaluated with consideration for both safety requirements and the NCC PWP/TREP requirement to avoid light trespass outside of the highway footprint, and builds upon coordination between Caltrans staff and Commission staff during previous project stages. Thus, lighting for the Stage 4 project will not result in significant impacts to visual resources.

Signage
The project would include new signage and would provide an opportunity to replace existing signage with updated project features to minimize visual impacts. The project will install new and replacement advisory signs to identify exit direction and interchange sequence. Sign panels and lettering will have enhanced reflectivity and will be the smallest size that meets safety requirements. New HOV signs will be installed on sign structures or bridge mounted. Overhead sign structures are sited and designed to minimize impacts to public views outside of the transportation facilities to the maximum extent feasible. Overhead sign structures will have a galvanized finish to be a visually unobtrusive color and be consistent with existing signage and lighting in the corridor. The project will replace existing truss sign structures with less obtrusive tubular post sign structures with new sign panels. To minimize the quantity of structures, Caltrans has eliminated unnecessary signs, consolidated signs on sign structures, and mounted signs on bridges where doing so minimizes visual impacts. In addition, typical signage standards (e.g., type, height, dimension, and location, as applicable), identified in Appendix B of the NCC PWP/TREP, will be utilized.

Two existing double-post truss sign structures that span the entire northbound freeway will be removed and replaced. One structure that spans the I-5/SR-78 interchange and is within the Buena Vista Lagoon viewshed will be replaced with a new two-post tubular sign structure, which will result in a more streamlined appearance. Additionally, the number of sign panels on the structure will be reduced from four to three panels. With these changes, the new sign structure will be 97 feet wide, replacing the 115-foot wide structure currently in place. The other existing double-post truss sign structure is located south of the Jefferson Street overcrossing and is outside of the Buena Vista Lagoon viewshed. This structure will be removed, and the two sign panels will be located on the bridge instead.

Finally, one changeable message sign (CMS) is proposed north of Tamarack Avenue on a single-post cantilever truss structure. This is the only proposed signage with movable, self-illuminated features, and it is located outside of any scenic resource areas. NCC PWP/TREP Section 4.2.8 limits the installation of new Changeable Message Signs (massive digital signs that display traffic information and public service announcements) to a total of five signs within the entire North Coast Corridor (La Jolla to Oceanside). Currently there are five CMS signs in operation in the North Coast Corridor. Caltrans also proposed to remove an existing bridge-mounted CMS at Tamarack Avenue. No future installation of Changeable Message Signs within the project limits shall occur without a subsequent NOID.

In conclusion, the Stage 4 Project proposed by the subject CDP/NOID is visually compatible with the existing character of the corridor. Therefore, by applying the policies, design/ development strategies, and implementation measures included in Section 5.7.3 of the NCC PWP/TREP, the Commission finds that the subject NOID is consistent with the NCC PWP/TREP.

G. COASTAL HAZARDS

Section 30232 of the Coastal Act states:

> *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.*

Section 30253 of the Coastal Act states:

> *New development shall do all of the following:*
>
> *(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.*
>
> *(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.*
>
> *(e) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.*

In addition, Policy 5.8.1 of the PWP states:

> *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 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.*

Implementation Measure 5.8.13 of the PWP states:

> *NOID or Coastal Development Permit submittals for armoring that extends into the optimized channel width shall include the following information and materials:*
>
> *- A mitigation and monitoring program to be implemented after construction to ensure the rock slope protection is not exposed.*

- The monitoring program shall require, at a minimum, annual monitoring, as well as additional monitoring one month after any 20-year or greater storm event.

- Mitigation for permanent impacts shall be required as further described in the REMP.

Coastal Act Section 30232 requires projects to be planned and developed to protect against the spillage of crude oil, gas, petroleum products, or hazardous substances. Coastal Act Section 30253 addresses the need to ensure long-term stability and structural integrity, minimize risk, and avoid landform-altering devices. Additionally, NCC 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 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 area where the Stage 4 Project is planned is subject to ground shaking events and potential instability due to sediment characteristics in the project area; however, the project has been designed to avoid and minimize potential impacts associated with geologic hazards, unstable soils, seismicity, and topography. Pursuant to DDS 1, requirements of Caltrans' Standard Specifications have been applied to ensure that all slopes will be geotechnically stable. All slopes and foundations have been coordinated with Caltrans Office of Geotechnical Design South and designed for global stability consistent with the Caltrans Seismic Design Criteria.

There is a low potential for structural damage as a result of liquefaction in the project area because the majority of the project is located atop dense sedimentary formation within the previously developed right-of-way. Further, appropriate technical personnel will be present during project construction to observe cuts, foundation subgrade, and embankment subgrade to assure that all design-level provisions are implemented, as specified in Excavation Safety Plans, per DDS 3. If unexpected subsurface conditions are encountered during construction, a geotechnical specialist would be notified to make recommendations to the project engineer.

Drainage and Flooding
The project site is located on I-5 spanning 0.1 miles north of Palomar Airport Road in Carlsbad to 0.1 mile north of Oceanside Boulevard in Oceanside. The project site will cross Agua Hedionda Lagoon and Buena Vista Lagoon. Agua Hedionda Lagoon is located in the Agua Hedionda and Macario Creek watershed in the City of Carlsbad, and is about 286 acres in size. Buena Vista Lagoon is located in the cities of Carlsbad and Oceanside and is approximately 203 acres in size. Buena Vista Lagoon is a part of the Carlsbad watershed and drains into Buena Vista Creek. The project area is also adjacent to Encinas Creek in the City of Carlsbad.

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. As development within the floodplain is unavoidable given the project objective of expanding the highway and constructing associated multi-modal transportation facilities, the footprint of development has been minimized. Risks associated with drainage and flooding have been minimized through the design of the NCC PWP/TREP improvements, as required by DDS 5 and DDS 7.

The project has been designed to avoid and minimize impacts to the floodplain by: utilizing slope rounding, slope sculpting, and variable gradients to approximate the appearance of natural topography. This will decrease the need for dikes and promote sheet flow to vegetated areas that can provide water quality benefits and promote infiltration. Staging and storage areas are planned in developed/disturbed locations to minimize the project footprint. Other than extending existing culverts, project improvements will not alter significant drainage patterns. Project improvements will not create an impediment to the flow of floodwaters.

Sea Level Rise

Sea level rise has occurred on a local and global scale over the past century and projections indicate that the rate may accelerate in the future. Potential effects of sea level rise include increased shoreline erosion and scour, increased nearshore wave energy, flooding, and reduced beach area, all of which can affect the long-term stability of infrastructure. In 2018, the California Ocean Protection Council released the latest sea level rise guidance – with projected ranges in sea level rise of 0.5-1.1 feet between 2000 and 2030, 0.9-2.8 ft. between 2000 and 2050, and 2.6-10.2 ft. between 2000 and 2100.[6] This state guidance and the Coastal Commission's 2018 Sea Level Rise Policy Guidance document recommend a site-specific analysis to determine the appropriate sea level rise for design considerations.

Since several of the NCC PWP/TREP improvements are located directly adjacent to the marine environment, DDS 10 requires potential impacts of local sea level rise to be considered in the design and/or refurbishment of all corridor infrastructure. DDS 10 also requires NOID submittals for transportation, bike and pedestrian improvements that may be subject to internal shoreline/bank erosion, tidal inundation and flooding, 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 75-year design life of the structure. The San Diego Region Coastal Sea Level Rise Analysis, dated September 2013, was prepared for the NCC PWP/TREP.

The subject project does not include replacement of the Agua Hedionda Lagoon Bridge or the Buena Vista Lagoon Bridge, and Caltrans states that the elevation of the existing

[6] These ranges represent the median to extreme risk aversion (H++) projections under high emissions scenarios for the La Jolla tide gauge, the tide gauge located closest to the project site. California Ocean Protection Council (2018). *State of California Sea-Level Rise Guidance: 2018 Update*, Appendix 3, Table 31. http://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_Exhibit-A_OPC_SLR_Guidance-rd3.pdf

bridge decks are high enough to avoid impacts associated with sea level rise. None of the other project components are expected to be impacted by sea level rise during their design life.

Hazardous Materials

In accordance with DDS 9, all soils that will be disturbed during construction of Stage 4 have been evaluated. A Site Investigation Report was prepared for lead contamination in June 2001 and a Limited Phase II Environmental Assessment was prepared in November 2005. A Summary of Hazardous Waste Review for Widening of Route 5 was prepared in 2014 and sampling for agricultural chemicals was conducted in January 2004. Further, since there are known chemical constituents present in soil and groundwater in the corridor, soil excavation activities will be performed under the guidelines of a Soil Management Plan and Health and Safety Plan, pursuant to IM 5.8.3.

An Aerially Deposited Lead (ADL) Study Report prepared on behalf of Caltrans in August 2019 found that ADL associated with vehicle emissions has entered the soil in some segments of highway median. As identified in the NCC PWP/TREP, IM 5.8.4 states that Caltrans must follow the Department of Toxic Substances Control (DTSC) lead variance for excavation of ADL soil. However, since the NCC PWP/TREP was certified in 2014, the DTSC transitioned from a lead variance to a new agreement with Caltrans to better manage ADL-contaminated soil that is disturbed during highway improvement projects. The *Soil Management Agreement for Aerially Deposited Lead-Contaminated Soils* between DTSC and Caltrans became effective as of July 1, 2016.[7] All requirements outlined in this Agreement shall be followed for handling, transportation, disposal, etc. for ADL-contaminated soil.

IM 5.8.5 requires soils located in the immediate vicinity of service stations in the corridor to 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 contaminants be discovered. The 2019 ADL Study Report found that the total petroleum hydrocarbons (TPH) analysis of the soil near the service stations within the project segment did not show impacts to the soil as it relates to TPH as gasoline. All soil excavation will be performed under a site-specific Soil Management Plan and handling or disposal of contaminated groundwater will comply with NPDES permit requirements.

In accordance with IM 5.8.8, Hazardous Materials Contingency Plans will be developed to manage potential hazardous waste issues. In addition, via IM 5.8.9, a safety and health work practices plan has been developed that addresses the safe handling and disposal of wood treated with creosote, including disposal at a composite-lined solid-waste landfill facility permitted to accept such wastes. In accordance with IM 5.8.10, surveys for lead-based paint and asbestos-containing materials have been conducted. No lead-based paint was observed on any bridge or overpass structures.

[7] California Dept. of Toxic Substances Control (2016). *Soil Management Agreement for Aerially Deposited Lead-Contaminated Soils*. https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/11/DTSC-Caltrans-ADL-Agreement-Signed-w-Exhibits-Final-6-30-16.pdf

A Site Management Program/Contingency Plan will be prepared, in accordance with IM 5.8.11, prior to construction/demolition of improvements to address known and potential hazardous material issues near each lagoon. Construction staging plans have been prepared with designated areas to accommodate equipment and vehicles fueling and are located a minimum of 100 feet away from waterbodies over paved or impervious surfaces. A minimum 100 foot fueling setback from waterbodies will be provided except 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, the maximum setback possible will be provided given the site constraints and additional BMPs shall be implemented. This proposed project will not include any in-water fueling. Equipment and vehicles will 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 will 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.

In order to prevent construction-related impacts to water quality and soil contamination, **Special Condition 2** requires Caltrans to submit a Final Stormwater Pollution Prevention Plan (SWPPP). The SWPPP shall include all housekeeping, source control, and treatment control BMPs that will be used during construction and will be updated as needed to reflect progression and phasing of the project. The SWPPP shall be supplemented to include dewatering requirements necessary for the construction of the project and an Aerially Deposited Lead (ADL) handling plan.

Assumption of Risk
Although NCC PWP/TREP policies, design/development strategies, and implementation measures applied to the Stage 4 improvements are anticipated to withstand the predictable hazards associated with development in the corridor, it is not possible to remove all risk associated with the uncertainties of natural hazards. For this reason, even though Caltrans has minimized risks by engineering the project to avoid, mitigate, and withstand the natural hazards posed by seismic events, tsunamis, liquefaction, storms, floods, erosion, and toxic contaminants, a degree of risk from natural hazards would remain and could not be fully mitigated. To protect the Commission and its employees from liability for the hazards posed by the subject structures and project features designed and managed by Caltrans, Caltrans acknowledges and accepts these risks pursuant to IM 5.8.12.

In conclusion, the Stage 4 Project will avoid and minimize coastal hazards, as described above. Therefore, the Commission finds that the subject CDP is consistent with Section 30232 of the Coastal Act. In addition, by applying the policies, design/development strategies, and implementation measures included in Section 5.8.3 of the NCC PWP/TREP, the Commission finds that the subject NOID is consistent with the NCC PWP/TREP.

H. ARCHAEOLOGICAL AND PALEONTOLOGICAL RESOURCES

Policy 5.6.1 of the PWP states:

> *New highway development, rail station and pedestrian crossings, and associated community and resource enhancement improvements shall strive to protect and minimize impacts to archaeological and paleontological resources. Where new development may potentially adversely impact archaeological or paleontological resources, appropriate mitigation measures, including the measures identified below, shall be required and implemented.*

Section 30116 of the Coastal Act defines archaeological sites that are referenced in the California Coastline and Recreation Plan or as designated by the State Historic Preservation Officer (SHPO) as sensitive coastal resources. Stage 4 will avoid all direct and indirect impacts to previously identified archaeological resources in the project vicinity. Policies, design/development strategies, and implementation measures included in the NCC PWP/TREP will protect cultural resources from any unanticipated adverse impacts during construction. In accordance with DDS 3, Caltrans has consulted with the SHPO and appropriate Native American tribes, and determined this project will not adversely affect significant archaeology sites within the Area of Potential Effect (APE). IM 5.6.3 requires compliance with State Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98 should unanticipated human remains be discovered during construction. The ESA Action Plan includes measures to ensure work ceases in any area or nearby area, that appropriate contacts are made, including coordination with the Native American Most Likely Descendants, and that ongoing monitoring is provided during the respectful treatment and disposition of the remains.

Design/development strategies and implementation measures included within the NCC PWP/TREP require avoidance, and where avoidance is infeasible, require appropriate mitigation measures where new development may potentially impact paleontological resources. A Paleontological Resource Assessment was prepared for the entire I-5 corridor, which includes the subject project limits, by the San Diego Natural History Museum (dated June 2009), as required by DDS 6. Based on this assessment, there are no known paleontological resources that may be affected by the Stage 4 project improvements. Nevertheless, given that other NCC project stages are located in or near areas of potentially high and moderate significance, a paleontological mitigation plan was prepared for the NCC project in accordance with IM 5.6.4. The mitigation plan provides specific directions to the contractor in the event that any paleontological resources are uncovered during construction.

In conclusion, by applying the policies, design/development strategies, and implementation measures included in Section 5.6.3 of the NCC PWP/TREP, Caltrans will avoid potential adverse impacts to archaeological and paleontological resources. Therefore, the Commission finds that the subject NOID is consistent with the NCC PWP/TREP.

I. CALIFORNIA ENVIRONMENTAL QUALITY ACT

Pursuant to Public Resources Code Section 21067 and Sections 15050 and 15051 of Title 14 of the California Code of Regulations, Caltrans is the lead agency for purposes of the California Environmental Quality Act (CEQA), as it is the public agency with principal responsibility for carrying out the I-5 related improvements and the larger NCC PWP/TREP. As the lead agency under CEQA, Caltrans certified a Final Environmental Impact Report/Environmental Impact Statement (SCH No. 2004101076) addressing the subject plan in November 2013.

Section 13096 of the Commission's Code of Regulations requires Commission approval of Coastal Development Permits to be supported by a finding showing the permit, as conditioned, to be consistent with any applicable requirements of the CEQA. This requirement also applies to the Commission's review of NOIDs, based on Section 13550(d) of the Commission's Code of Regulations. Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

As discussed previously, the proposed project has been conditioned in order to be found consistent with the Chapter 3 policies of the Coastal Act, and the NOID has been conditioned in order to be found consistent with the certified NCC PWP/TREP. Mitigation measures, including conditions addressing water quality and public access, will avoid or minimize all adverse environmental impacts. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment. Therefore, the Commission finds that the proposed project is the least environmentally-damaging feasible alternative and can be found consistent with the requirements of the Coastal Act to conform to CEQA.

APPENDIX A – SUBSTANTIVE FILE DOCUMENTS

- PWP No. PWP-6-NCC-13-0203-1
- PWP Amendment No. PWP-6-NCC-16-0001-1
- PWP Amendment No. PWP-6-NCC-16-0001-2
- CDP No. 6-15-2092
- NOID No. NCC-NOID-0005-15
- CDP No. 6-18-0204
- NOID No. NCC-NOID-0003-18