

**CALIFORNIA COASTAL COMMISSION**

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# Th14a

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## STAFF REPORT: REGULAR CALENDAR

**Application No.:** 5-21-0722

**Applicant:** City of Newport Beach

**Agents:** City of Newport Beach (Attn: Robert Stein and John Kappeler), Burns & McDonnell (Attn: David Pohl)

**Location:** San Diego Creek extending between Jamboree Road and southbound California State Route 73, Newport Beach, Orange County

**Project Description:** Installation of a floating trash interceptor system in and adjacent to San Diego Creek, including a 150-ft. wide boom system, a rake system and 5.5-ft. wide, 53-ft. long conveyor belt, a 14-ft. tall, 707 sq. ft. floating trash wheel, a 183 sq. ft. gangway, two 8 cy. dumpsters mounted on a 910 sq. ft. fixed-rail system, a 3,906 sq. ft. concrete dumpster transfer area, a 2,855 sq. ft. permeable service road with bioretention cells, and 21 new pipe piles (six landside and 15 aquatic). The project will mitigate 0.366 acres of impacts to riparian habitat with restoration of 1.098 acres of native riparian habitat on the northern and southern creek banks; and mitigate benthic creek impacts with the removal of 15 derelict wooden piles. 191 cy. of cut and 577 cy. of fill is proposed.

**Staff Recommendation:** Approval with conditions.

## SUMMARY OF STAFF RECOMMENDATION

The project site is an approximately five-acre area in and adjacent to San Diego Creek, extending between Jamboree Road and southbound State Route (SR) 73 in the City of Newport Beach. The site is located 800 ft. upstream of the Upper Newport Bay State Ecological Reserve (Ecological Reserve) and four miles upstream of the mouth of Newport Bay and the Pacific Ocean. The project area is designated as Open Space by the Coastal Land Use Plan (LUP), a component of the Newport Beach certified Local Coastal Program (LCP).

San Diego Creek is an approximately 16-mile long waterway that introduces hundreds of tons of trash from surrounding urban development into downstream waterways each year. The applicant—the City of Newport Beach—has received a \$1.68 million grant from the Ocean Protection Council (OPC) to address the major source of anthropogenic pollution. With this grant, the applicant proposes construction of a floating trash interceptor system installed in the waterway and on the adjacent northern bank.

The proposed aquatic components include a boom system spanning the full 150-ft. creek width; a 17-ft. tall water wheel located atop a 707 sq. ft. floating barge platform; a 5.5-ft. wide, 53-ft. long conveyor belt and rake system; a 910 sq. ft. fixed-rail system (which will extend 53-ft. into the creek and 38-ft. across the northern bank); and a 61-ft. long, 183 sq. ft. gangway for maintenance access to the water wheel. The overwater features will require 15 steel piles installed in the creek, resulting in 37 sq. ft. of new creek fill. To mitigate soft-bottom habitat impacts, the applicant proposes removal of 15 existing derelict piles from the creek, resulting in the removal of approximately 38 sq. ft. of fill.

The proposed landside components include two 8 cy. dumpsters mounted on a rail car atop the fixed-rail system; a 3,906 sq. ft. concrete dumpster collection area; and a 24-ft. long, 2,855 sq. ft. road with permeable pavement and bioretention cells to catch runoff. The landside features will require 191 cy. of cut, 577 cy. of fill, and five piles installed on the northern bank. The proposed work will impact approximately 0.366 acres of existing riparian habitat designated by the Commission's environmental program manager as environmentally sensitive habitat area (ESHA). To mitigate ESHA impacts, the applicant proposes restoration of 1.098 acres of native riparian habitat on the northern and southern banks for a 3:1 mitigation ratio. The restored habitat will be monitored for compliance with performance criteria for at least five years.

The proposed system will remove floating debris from the waterway by using the natural current to guide trash along the booms and into the trash wheel mouth, where the solar and hydraulic energy-powered rake system and conveyor belt will convey trash into dumpsters mounted on the fixed-rail system. The railcar will convey the dumpsters away from the creek and into the dumpster collection facility, where garbage trucks will periodically empty the dumpsters via the permeable access road. (This technology has proven effective by a similar trash interceptor system currently installed in Baltimore,

Maryland.)<sup>1</sup> The applicant intends to track the volume and contents of collected debris to inform future waste prevention measures, but has not provided a plan for how this data collection will occur. The applicant anticipates a 20- to 25-year development lifespan and proposes removal of all features summarized above at the end of its functional life.

The proposed development and habitat restoration must occur within the creek and serves the purpose of improving wildlife habitat. As such, it is an allowable use of open coastal waters and ESHA under Chapter 3 policies of the Coastal Act regarding marine resource protection. The applicant submitted four alternatives to the project (no project, temporary measures, a boom system, or a full-capture system) and demonstrated that the proposed floating trash interceptor system is the least environmentally damaging alternative that will accomplish the goal of removing debris that flows through the creek into the Ecological Reserve and the bay during storm events. The proposed ESHA mitigation is consistent with past Commission precedent and the certified LUP in providing a 3:1 mitigation ratio; additionally, the proposed mitigation for fill of soft-bottom habitat will be mitigated with removal of a greater amount of existing fill.

While the applicant has coordinated with local resource agencies prior to submittal of the subject application, the project still requires permits from the California Department of Fish and Wildlife (CDFW) and Regional Water Quality Control Board (RWQCB), and may require a permit from the U.S. Army Corps of Engineers (USACE). **Special Condition 1** requires the applicant to comply with all local resource agency requirements and submit any project revisions to the Executive Director for determination whether a coastal development permit (CDP) amendment is required. Because the project site is owned by the Irvine Company and managed by the Orange County Flood Control District, **Special Condition 2** requires the applicant to submit evidence of their legal ability comply with all conditions of the subject permit.

The riparian and coastal sage scrub habitat has the potential to provide nesting and foraging resources for sensitive species including the Least Bell's Vireo, the coastal California gnatcatcher, raptors and other species. In order to protect the sensitive species in the project area, **Special Conditions 3 and 4** require the applicant provide a biological monitor during construction to protect sensitive species and to abide by a construction schedule to avoid impacting habitat during nesting season. **Special Condition 5** requires the applicant to adhere to the proposed habitat restoration, mitigation, and monitoring plan.

The applicant submitted an eelgrass and Caulerpa survey for the project site, conducted on April 27, 2018, which did not identify any eelgrass within the project site. Eelgrass surveys completed between August through October are valid until the resumption of active growth (i.e., March 1) and the subject eelgrass survey is no longer valid for project construction. **Special Conditions 6 and 7** thus require the applicant to conduct

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<sup>1</sup> Ref. <https://www.mrtrashwheel.com/>

new eelgrass and Caulerpa surveys prior to the beginning construction and submit these surveys to the Executive Director.

The City could further reduce the volume of trash entering San Diego Creek and downstream coastal waters by restricting the provision of single-use plastic and expanded polystyrene (Styrofoam) products in Newport Beach (such as plastic balloons, bags, and plastic/Styrofoam foodware). Curtailing waste production is more effective than attempting to collect these products from coastal waterways. Commission staff have discussed the importance of such proactive measures with the City and issued a comment letter requesting that the City Council pass these pollution restrictions prior to the date of the subject hearing, but the Commission has not received a written commitment from the City. The applicant indicates that the proposed project is part of a comprehensive trash reduction campaign that will ideally include point-source curtailment in addition to downstream collection.

While the proposed project should not function as the only source of pollution prevention, it would still be a valuable method of removing trash from the creek and preventing it from entering the Ecological Reserve. **Special Condition 8** requires the applicant to submit a Performance Monitoring Program for Executive Director review and approval which requires the applicant to submit annual monitoring reports evaluating the efficacy of the floating trash interceptor system, as well as additional measures the City may take to curtail trash pollution.

Commission water quality staff have reviewed the subject application and determined that the proposed use of bioretention cells and pervious pavement will provide adequate drainage onsite; however, Commission water quality staff recommend additional construction best management practices (BMPs) be incorporated into the applicant's proposed BMPs to avoid plastic and contaminated runoff pollution. **Special Conditions 9 and 10** require the applicant to submit a construction staging plan for review and approval of the Executive Director prior to issuance of the subject CDP and adhere to all BMPs recommended by Commission water quality staff. The proposed design, as conditioned, will minimize the effect of construction activities on the marine environment and improve water quality through trash collection.

The project geotechnical consultant has confirmed that the proposed design minimizes risks associated with liquefaction, flooding, and erosion hazards. The project has been designed with an adequate number of piles and safety features to withstand up to 100-year storm event conditions (excluding the two dumpsters, which will be removed from the site three days prior to any predicted storm event to avoid damage, and the boom system that is designed to wash onto the south bank upon detachment in up to a 25-year storm.) To ensure the applicant acknowledges the risks inherent to the project location, **Special Condition 11** requires the applicant to assume all risks of the development and acknowledge that future removal may be determined necessary if at any point the development poses a risk to public safety.

The project site is surrounded by major roadways and urban development, with views of the project site available solely from public trails on the southern creek bank. The

proposed floating trash interceptor will not block views of riparian habitat and includes a canopy with solar panels to reduce the amount of mechanical articulation visible. The project will also improve visually degraded resources with the removal of 15 derelict piles, restoration of 1.098 acres of native riparian habitat, and an estimated up to 80% reduction in the volume of trash entering downstream coastal waters. The project minimizes impacts to shoreline views and enhances visual resources onsite.

The project site is located in an area that may contain sensitive cultural and/or archaeological resources. One Native American Tribal chairman has requested a tribal representative be present to monitor all proposed excavation and ensure respectful treatment of any discovered cultural deposits. Thus, to ensure any potential impacts to cultural resources are avoided, **Special Condition 12** requires the applicant to submit a Cultural Resource Treatment and Monitoring Plan for Executive Director approval which requires monitoring of all grading activities on site by both a qualified archeologist and Native American monitor(s).

While the Commission certified the City's LCP in 2017, the project site is located on public trust lands within the Commission's retained permit jurisdiction. Therefore, the standard of review is the Chapter 3 policies of the Coastal Act with the certified LCP providing guidance. Staff recommends **APPROVAL** of the proposed project with **twelve (12) special conditions** requiring: **1)** local resource agency approval; **2)** proof of legal ability to comply with conditions; **3)** biological monitoring; **4)** pre-construction nesting surveys; **5)** implement habitat mitigation and monitoring plan; **6)** pre- and post-construction eelgrass surveys; **7)** Caulerpa survey; **8)** Performance Monitoring Program; **9)** Construction Staging Plan; **10)** construction BMPs; **11)** assumption of risk; and **12)** Cultural Resource Treatment and Monitoring Plan.

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### **Exhibits**

[Exhibit 1 – Vicinity Map](#)

[Exhibit 2 – Project Plans](#)

[Exhibit 3 – Habitat Mitigation and Monitoring Plan Figures](#)

[Exhibit 4 – Site Photos](#)

## I. MOTION AND RESOLUTION

**Motion:** I move that the Commission **approve** Coastal Development Permit Application No. 5-21-0722 pursuant to the staff recommendation.

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

**Resolution:** The Commission hereby approves Coastal Development Permit Application No. 5-21-0722 and adopts the findings set forth below on grounds that the development, as conditioned, will be in conformity with the Chapter 3 policies 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 will substantially lessen any significant adverse impacts of the development on the environment.

## II. 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 applicant 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 or 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 applicant to bind all future owners and possessors of the subject property to the terms and conditions.

### III. SPECIAL CONDITIONS

1. **Other Agency Approvals.** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the permittee shall provide to the Executive Director copies of any/all permits issued by the Regional Water Quality Control Board, California Department of Fish and Wildlife, United States Army Corps of Engineers, and Environmental Protection Agency, or letter(s) of permission, or evidence that no permit or permission is required. The permittee shall inform the Executive Director of any changes to the project required by these resource agencies. Such changes shall not be incorporated into the project until the permittee obtains a Commission amendment to this coastal development permit, unless the Executive Director issues a written determination that no amendment is legally required.
2. **Proof of Legal Ability to Comply with Conditions.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall demonstrate its legal ability or authority to comply with all of the terms and conditions of this coastal development permit by submitting, for the Executive Director's review and approval, information indicating approval from the record title property owner(s) that (a) authorizes the applicant to proceed with the approved development and (b) permits the applicant to comply with the terms and conditions of this coastal development permit.
3. **Biological Monitor.** By acceptance of this permit, the permittee agrees that an appropriately trained biologist shall monitor the proposed development for disturbance to sensitive species or habitat area. At minimum, monitoring shall occur once a week during any week in which construction occurs. Daily monitoring shall occur during development which could significantly impact biological resources such as dredging or construction that could result in disturbances to the raptors or sensitive species in the area. Based on field observations, the biologist shall advise the permittee regarding methods to minimize or avoid significant impacts, which could occur upon sensitive species or habitat areas. The permittee shall not undertake any activity that would disturb habitat area unless specifically authorized and mitigated under this coastal development permit or unless an amendment to this coastal development permit for such disturbance has been obtained from the Coastal Commission.
4. **Implement Habitat Monitoring and Maintenance Plan as Proposed.** The permittee shall carry out the approved Habitat Mitigation and Monitoring Plan (HMMP) prepared for the City of Newport Beach by Tidal Influence as revised on May 11, 2022. The permittee shall undertake development in accordance with the approved HMMP. Any proposed changes to the approved plan shall be reported to the Executive Director. No changes to the approved plans shall occur without a new CDP or a Commission-approved amendment to this CDP unless the Executive Director determines that no amendment is legally required.
5. **Construction Timing and Sensitive Bird Species Surveys.** For any construction activities occurring between February 15 and September 1, including grading, re-



vegetation, and installation of irrigation, the permittee shall retain the services of a qualified biologist or environmental resources specialist (hereinafter, "environmental resources specialist") to conduct nesting bird surveys in order to determine the presence of songbird and raptor and owl species including but not limited to the coastal California gnatcatcher (*Polioptila californica californica*). The environmental resources specialist shall also monitor project operations. At least 30 calendar days prior to commencement of any project operations, the permittee shall submit the name and qualifications of the environmental resource specialist, for the review and approval of the Executive Director. The permittee shall ensure that all project construction operations shall be carried out consistent with the following:

- A. A qualified environmental resources specialist with experience in conducting nesting bird surveys shall conduct the surveys 30 calendar days prior to construction activities within the project area and a buffer area up to 500 feet of the project area. A follow-up survey must be conducted three calendar days prior to the initiation of construction, and nest surveys must continue on a monthly basis throughout the nesting season or until the project is completed, whichever comes first.
- B. If an active nest of any songbird is found within 300 feet of the project, or an active nest for any raptor species is found within 500 feet of the project, the permittee shall retain the services of an environmental resources specialist with experience conducting bird and noise surveys, to monitor bird behavior and construction noise levels. The nest shall not be removed or disturbed. The environmental resources specialist shall be present at all relevant construction meetings and during all significant construction activities (those with potential noise impacts) to ensure that nesting birds are not disturbed by construction related noise. The environmental resources specialist shall monitor birds and noise every day at the beginning of the project and during all periods of significant construction activities. Construction activities may occur only if construction noise levels are at or below a peak of 65 dB at the nest(s) site(s). If construction noise exceeds a peak level of 65 dB at the nest(s) site(s), sound mitigation measures such as sound shields, blankets around smaller equipment, mixing concrete batches off-site, use of mufflers, and minimizing the use of back-up alarms shall be employed. If these sound mitigation measures do not reduce noise levels, construction shall cease and shall not recommence until either new sound mitigation can be employed or the birds have fledged.
- C. If an active nest of a federally or state-listed threatened or endangered species or bird species of special concern is found within 300 feet of the project, or an active nest for any species of raptor is found within 500 feet of the project, the permittee shall notify the appropriate State and Federal Agencies within 24 hours, and appropriate action specific to each incident will be developed. The permittee will notify the California Coastal Commission by e-mail within 24 hours and consult with the Commission regarding determinations of State and Federal agencies.

- D. The environmental resource specialist shall be present during all construction activities during the bird nesting/breeding season if an active nest is identified, until the birds have fledged.
- E. The permittee shall cease work should any breach in compliance with this condition occur, or if any unforeseen sensitive habitat issues arise. The permittee shall immediately notify the Executive Director if activities outside the scope of the subject CDP occur. If significant impacts or damage occur to sensitive habitats or to wildlife species, the permittee shall be required to submit a revised or supplemental program to adequately mitigate such impacts.

**6. Eelgrass Survey(s).**

- A. **Pre-Construction Eelgrass Survey.** A valid pre-construction eelgrass (*Zostera marina*) survey shall be completed during the period of active growth of eelgrass (typically March through October). The pre-construction survey shall be completed prior to the beginning of construction and shall be valid until the next period of active growth. The survey shall be prepared in full compliance with the "California Eelgrass Mitigation Policy" dated October 2014 (except as modified by this special condition) adopted by the National Marine Fisheries Service and shall be prepared in consultation with the California Department of Fish and Wildlife. The applicant shall submit the eelgrass survey for the review and approval of the Executive Director within five (5) business days of completion of each eelgrass survey and in any event no later than fifteen (15) business days prior to commencement of any development. If the eelgrass survey identifies any eelgrass within the project area which would be impacted by the proposed project, the applicant shall undertake mitigation pursuant to the Final Eelgrass Mitigation and Monitoring Plan approved by the Executive Director.
- B. **Post-Construction Eelgrass Survey** If any eelgrass is identified in the project area or the 10 meter buffer area by the pre-construction survey required by Subsection A of this condition, within 30 days of completion of construction, or within the first 30 days of the next active growth period following completion of construction that occurs outside of the active growth period, the applicant shall survey the project site and the 10 meter buffer area to determine if any eelgrass was adversely impacted. The survey shall be prepared in full compliance with the CEMP adopted by the NMFS (except as modified by this special condition), and in consultation with the CDFW. If side-scan sonar methods are to be used, evidence of a valid permit from CSLC must also be provided prior to the commencement of each survey period. The applicant shall submit the postconstruction eelgrass survey for the review and approval of the Executive Director within thirty (30) days after completion of the survey. If any additional eelgrass has been adversely impacted beyond the area of impacted identified in the pre-construction eelgrass survey, the applicant shall replace the impacted eelgrass at a minimum final 1.38:1 ratio on-site (mitigation: impact), or at another location, in accordance with the CEMP. Any exceptions to the required 1.38:1 minimum final mitigation ratio found within the CEMP shall not apply. Based on

past performance of eelgrass mitigation efforts, in order to achieve this minimum, the appropriate regional initial planting ratio provided in the CEMP should be used. Implementation of mitigation to ensure success in achieving the minimum final mitigation ratio (1.38:1) shall require an amendment to this permit or a new coastal development permit unless the Executive Director provides a written determination that no amendment or new permit is required.

## **7. Pre-construction Caulerpa sp. Survey(s).**

- A. Not earlier than 90 days nor later than 30 days prior to commencement or recommencement of any development authorized under this coastal development permit (the "project"), the applicant shall undertake a survey of the project area and a buffer area at least 10 meters beyond the project area to determine the presence of the invasive alga *Caulerpa* sp. The survey shall include a visual examination of the substrate.
- B. The survey protocol shall be prepared in consultation with the Regional Water Quality Control Board, the California Department of Fish and Wildlife, and the National Marine Fisheries Service.
- C. Within five (5) business days of completion of the survey, the applicant shall submit the survey:
  1. for the review and approval of the Executive Director; and
  2. to the Surveillance Subcommittee of the Southern California Caulerpa Action Team (SCCAT). The SCCAT Surveillance Subcommittee may be contacted through California Department of Fish & Wildlife (858/467-4218) National Marine Fisheries Service (562/980-4043).
- D. If *Caulerpa* species is found within the project or buffer areas, the applicant shall not proceed with the project until 1) the applicant provides evidence to the Executive Director, subject to concurrence by the Executive Director, that all *Caulerpa* sp. discovered within the project and buffer area has been eliminated in a manner that complies with all applicable governmental approval requirements, including but not limited to those of the California Coastal Act, or 2) the applicant has revised the project to avoid any contact with *Caulerpa* species. No revisions to the project shall occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

- 8. Performance Monitoring Program.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit for review and written approval of the Executive Director a Performance Monitoring Program to document the functionality of the subject development. The performance monitoring plan shall at a minimum include the following:

- A. Provisions for assessing the volume and contents of debris collected by the trash wheel interceptor system each month;
- B. Provisions for ongoing maintenance and repair of the trash wheel interceptor system and indication of how often these activities will occur;
- C. Provisions for submission of annual reports on January 1<sup>st</sup> of each subsequent year following the date of permit approval for the full duration of the new development's lifespan. Each report shall include:
  - 1. A figure estimating the volume of debris collected by the trash interceptor system each month and the total annual volume;
  - 2. A figure estimating the general composition of debris collected by the trash interceptor system each month and the most common category of debris observed in the subject year;
  - 3. A description of all maintenance events (excluding sweeping) and damage that occurred in the subject year; and
  - 4. A summary of new state, regional, and local requirements regarding single-use plastic and expanded polystyrene (Styrofoam) curtailment and additional methods of curtailment the City could use to meet these requirements.

The permittee shall monitor and manage the subject development in accordance with the approved Performance Monitoring Program, including any revisions to the monitoring program requested by or approved by the Commission or its staff. Any proposed changes to the approved Performance Monitoring Program shall be reported to the Executive Director. No changes to the approved Performance Monitoring Program shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

**9. Final Construction Staging Plans.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the review and written approval of the Executive Director, two full-size sets of construction staging plans in substantial conformance with the "Construction Memorandum" dated June 14, 2021 including, at minimum:

- A. A site plan depicting the following components:
  - 1. The limits of the construction staging area(s), consistent with the easement shown in Figure 2;
  - 2. The location of all temporary construction roads graded for vehicle access;
  - 3. The location of any temporary construction fencing and/or trailer structures;

4. The location of the construction corridor(s) used to provide access between Jamboree Road and the construction site.

B. A narrative plan sheet demonstrating the following:

1. All temporary construction roads, excluding the proposed permanent access road and dumpster transfer area, will be removed upon completion of construction;
2. Construction shall not obstruct public access to San Diego Creek trails or the Upper Newport Bay Ecological Reserve;
3. No portion of the southern creek bank shall be used for staging or storage of construction equipment and/or vehicles.

**10. Construction Best Management Practices.**

A. The permittee shall comply with the following construction-related requirements and shall do so in a manner that complies with all relevant local, state and federal laws applicable to each requirement:

1. No construction materials, debris, or waste shall be placed or stored where it may be subject to wave, wind, rain, or tidal erosion and dispersion;
2. Any and all debris resulting from construction activities shall be removed from the project site within 24 hours of completion of the project;
3. Construction debris and sediment shall be removed from construction areas each day that construction occurs to prevent the accumulation of sediment and other debris which may be discharged into coastal waters;
4. Erosion control/sedimentation Best Management Practices (BMPs) shall be used to control dust and sedimentation impacts to coastal waters during construction. BMPs shall include but are not limited to the placement of sand bags around drainage inlets to prevent runoff/sediment transport into coastal waters; and
5. All construction materials, excluding lumber, shall be covered and enclosed on all sides, and stored as far from a storm drain inlet and any receiving waters as possible.

B. Best Management Practices (BMPs) designed to prevent spillage and/or runoff of construction-related materials, sediment, or contaminants associated with construction activity shall be implemented prior to the onset of such activity. Selected BMPs shall be maintained in a functional condition throughout the duration of the project. Such measures shall be used during construction:

1. The permittee shall ensure the proper handling, storage, and application of construction materials. These measures shall include a designated fueling and vehicle maintenance area with appropriate berms and protection to prevent any spillage of gasoline or related petroleum products or contact with runoff. It shall be located as far away from any receiving waters and storm drain inlets as possible;
2. The permittee shall develop and implement spill prevention and control measures;
3. The permittee shall maintain and wash equipment and machinery in confined areas specifically designed to control runoff. Thinners or solvents shall not be discharged into sanitary or storm sewer systems. Washout from concrete trucks shall be disposed of at a location not subject to runoff and more than 50 feet away from a storm drain, open ditch or surface water;
4. The permittee shall provide adequate disposal facilities for solid waste, including excess concrete, produced during construction;
5. The use of temporary erosion and sediment control products (such as fiber rolls, erosion control blankets, mulch control netting, and silt fences) that incorporate plastic netting shall be prohibited, to minimize wildlife entanglement and plastic debris pollution. Only 100% biodegradable (not photodegradable) natural fiber netting shall be allowed;
6. The permittee shall not spray landscaping chemicals in or within 25 feet of any drainage swale, and will minimize the use of landscaping chemicals within the project to the extent feasible;
7. The permittee shall implement Integrated Pest Management (IPM) for the project to the extent feasible, to minimize the use of landscaping chemicals and to prevent the degradation of coastal water quality;
8. All temporary erosion and sediment control products used in construction shall contain either no netting or loose-weave natural fiber netting and be promptly removed when no longer required. No plastic or metal netting, including photodegradable plastic netting, shall be allowed onsite;
9. Containment products, including, but not limited to, tarps or debris booms, shall be used to capture and prevent the discharge of construction pollutants into the adjacent waterway;
10. The vibratory hammer method shall be used for pile installation; if this is deemed infeasible, the permittee shall use the impact hammer method of pile installation; and
11. All construction equipment shall use vegetable oil-based hydraulic fluids and/or biodiesel.

**11. Assumption of Risk, Waiver of Liability and Indemnity.** By acceptance of this permit, the permittee acknowledges and agrees (i) that the site may be subject to hazards from storms, sea level rise, fluvial or tidal induced erosion, earthquakes, and other hazards; (ii) to assume the risks to the permittee and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards; (v) that sea level rise could render it difficult or impossible to provide services to the site (e.g., maintenance of roadways, utilities, sewage or water systems), thereby constraining allowed uses of the site or rendering it uninhabitable; and (vi) that the development may be required to be removed or relocated and the site restored if it becomes unsafe or if removal is required pursuant to the Coastal Act.

**12. Cultural Resource Treatment and Monitoring Plan.** PRIOR TO THE ISSUANCE OF THE PERMIT, the applicant shall provide an Archaeological Monitoring and Cultural Resource Treatment plan that complies with the following:

A. Incorporate the following into the archaeological monitoring plan:

1. Archaeological monitor(s) qualified by the California Office of Historic Preservation (OHP) standards, and a minimum of one (1) Native American monitor from each tribal entity with documented ancestral ties to the area appointed consistent with the standards of the Native American Heritage Commission (NAHC), and the Native American most likely descendent (MLD) when State Law mandates identification of a MLD, shall monitor all project grading, excavation work, site preparation or landscaping activities associated with the approved development. Prior to the commencement and/or re-commencement of any monitoring, the permittee shall notify each archaeological and Native American monitor of the requirements and procedures, and shall provide a copy of this special condition, any archaeological monitoring or research plans, past archaeological reports, and any other plans required pursuant to this condition and which have been approved by the Executive Director, to each monitor;
2. The permittee shall provide sufficient archaeological and Native American monitors to assure that all project grading and any other subsurface activity that has any potential to uncover or otherwise disturb cultural deposits is monitored at all times;
3. The Native American Monitor(s) shall be required until sterile soils have been reached; and

4. The monitoring and treatment plan must be developed in coordination with the affected Native American Tribes.
- B. If an area of tribal cultural deposits is discovered during the course of the project:
1. All construction and subsurface activities that have the potential to uncover or otherwise disturb tribal cultural deposits in the area of the discovery shall cease within 50 feet of the deposit immediately; The monitor(s) or MLDs may make recommendations during the course of the project when a cultural area has been impacted. The monitor's access to the site of discovery shall not be contingent upon permission from the landowner, or their authorized representative. The monitor will be authorized to halt or redirect excavation activities to another area as an assessment is made;
  2. The permittee shall report all discovered resources as soon as possible, by phone or by email to the Executive Director;
  3. The professional archaeological monitor on-site must contact all affected groups of the Native American Tribe(s) that are not present for on-site monitoring and notify them of the discovery in order to determine the results of (iv) and (v) below;
  4. Significance testing may be carried out only if acceptable to the affected Native American Tribe(s), in accordance with the attached "Cultural Resources Significance Testing Plan Procedures" ([Appendix B](#)) and in consultation with the Tribe. The Executive Director shall, in writing, determine the adequacy of the Significance Testing Plan and if it can be implemented without further Commission action, provide written authorization to proceed. The Significance Testing Plan results, if applicable, along with the project archaeologist's recommendation as to whether the discovery should be considered significant, and the comments of the Native American monitors and MLD when State Law mandates the identification of a MLD, shall be submitted to the Executive Director for a determination. If the Executive Director determines that the discovery is significant, development shall not recommence and the permittee shall submit to the Executive Director a Supplementary Archaeological Plan consistent with Appendix B;
  5. The treatment method or mitigation measure for the discovery shall be prepared in consultation with the Native American monitor(s), and the MLD when State Law mandates the identification of an MLD. The permittee shall inform the Executive Director of the treatment method in writing. In-situ preservation is the preferred treatment and can be achieved through such methods such as, but not limited to, project redesign, capping, and deeding the cultural resource areas in open space. The range of treatment and mitigation measures considered shall not be constrained by the approved



development plan. Should excavation and recovery be acceptable to the affected Native American Tribe(s), the landowner and applicant will be responsible for all costs related to the proper storage and reburial of remains excavated on their property to include all burial materials. The applicant and landowner will be financially responsible for providing reburial plots that are acceptable to the MLD; and

6. Any and all information about the location of any tribal, cultural, or sacred site shall be kept confidential and shall not be disclosed to the general public.
- C. If the Executive Director determines that the discovery is significant or that the treatment method preferred by the affected Native American tribe is in conflict with the approved development plan, the permittee shall seek an amendment from the Commission to determine how to respond to the discovery and to protect both those and any further cultural deposits that are encountered. Development within at least 50 feet of the discovery shall not recommence until an amendment is approved, and then only in compliance with the provisions of such amendment.

## IV. FINDINGS AND DECLARATIONS

### A. Project Description and Location

The project site is an approximately five-acre area in and adjacent to San Diego Creek, with the majority of the work occurring along the northern bank of the creek extending between Jamboree Road and the southbound SR 73 in the City of Newport Beach, Orange County ([Exhibit 1](#)). The subject site is located approximately 800 feet upstream of the Ecological Reserve, a designated Marine Protected Area, and four miles upstream of the mouth of Newport Bay at the Pacific Ocean. The upland area of the project site is owned by the Irvine Company, but an easement has been granted to Orange County Flood Control District for flood control management purposes. (**Special Condition 2** thus requires the applicant to submit evidence of project approval from all ownership interests.) The project area is designated as Open Space by the Coastal LUP, a component of the Newport Beach certified LCP.

San Diego Creek is an approximately 16-mile long waterway meandering from Lake Forest (inland of Laguna Beach) through Irvine and terminating in the Ecological Reserve.<sup>2</sup> As the largest tributary in Newport Beach, it is a major source of freshwater

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<sup>2</sup> Ref.

[https://www.waterboards.ca.gov/rwqcb8/water\\_issues/programs/planning/SD\\_Creek/San\\_Diego\\_Creek\\_Causal\\_Assessment\\_Final\\_Report\\_2019-10-12.pdf](https://www.waterboards.ca.gov/rwqcb8/water_issues/programs/planning/SD_Creek/San_Diego_Creek_Causal_Assessment_Final_Report_2019-10-12.pdf)

flow into Newport Bay.<sup>3</sup> It is also the source of a large volume of anthropogenic debris: the City indicates hundreds of tons of trash matted with dead vegetation can clog the creek during heavy rainfall events. The pollution is caused by wind-blown trash, litter, and illegal dumping within the dense urban areas surrounding the creek – not only around the project area, but emanating from 16 miles of upstream inland cities.

The City of Newport Beach indicates several previous actions taken to minimize trash flows into Newport Bay and the Pacific Ocean from sources within the City. In the past twenty years, the City has installed at least 600 catch basin screens (i.e. perforated panels installed over storm drains), 40 Continuous Deflective Separation Units (i.e. chambers installed in storm drains to separate pollutants from runoff), seven ‘trash skimmers’ in Newport Bay (i.e. large water filters), and one debris boom installed in the Ecological Reserve (i.e. floating buoys spanning a waterway to catch debris).<sup>4</sup> These methods can be effective, but often present their own set of adverse environmental impacts and have a short functional life (described in further detail in the ‘Biological Resources’ subsection below.)

In 2016, the City began designing the project in coordination with CDFW and the Newport Bay Conservancy. On September 25, 2018, the City Council approved Resolution No. 2018-67 adopting a Final Mitigated Negative Declaration for the proposed project. On October 25, 2018, OPC approved a \$1.68 million Proposition 1 grant issued to the City for planning and implementation of the “Newport Bay Water Wheel” project.<sup>5</sup> The project is intended to produce an up to 80% reduction in the current volume of trash entering the Ecological Reserve each year and the technology has proven effective at a similar trash interceptor system currently installed Baltimore, Maryland.<sup>6</sup>

The proposed trash interceptor system consists of overwater and landside components ([Exhibit 2](#)). Two floating booms—a 50-ft. north boom and a 210-ft. long south boom—will span the full 150-ft. creek width in a curved U-shape, anchored by four 16-in. and 24-in. diameter steel piles installed in the creek bottom. The booms will always float at least five feet above the creek bottom, as the applicant indicates the creek has not run dry in recorded history. The natural current will push debris along the booms and toward the mouth of a 14-ft. tall, 707 sq. ft. water wheel located atop a floating barge platform and moored by an additional 24-in. diameter steel pile. Local maintenance staff will be able to access the floating barge via a 61-ft. long, 183 sq. ft. gangway which does not require any additional piles. The water wheel will be designed to produce both hydraulic

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<sup>3</sup> Ref. [https://opc.ca.gov/webmaster/ftp/pdf/agenda\\_items/20181025/Item8b-Water-Trash-Wheel-Prop-1-FINAL.pdf](https://opc.ca.gov/webmaster/ftp/pdf/agenda_items/20181025/Item8b-Water-Trash-Wheel-Prop-1-FINAL.pdf)

<sup>4</sup> Ref. [Catch Basins](#); [Continuous Deflective Separation Units](#); [Trash Skimmer](#); [Debris Boom](#)

<sup>5</sup> Ref. <https://www.opc.ca.gov/2018/10/opc-approves-grant-for-newport-bay-water-wheel-project/>

<sup>6</sup> Ref. <https://www.mrtrashwheel.com/>

energy from the current and solar energy from a canopy of solar panels. This renewable energy will power the set of rakes scraping trash onto a partially submerged, 5.5-ft. wide, 53-ft. long conveyor belt. The conveyor belt will share these energy sources and include ladder structures to keep trash from falling backward on its way up from the creek; the solar-panel canopy will also prevent wind mobilization. The trash will fall into one of two eight cy. dumpsters positioned at the end of the conveyor belt.

The dumpsters will be mounted on a railcar able to traverse the 910 sq. ft. fixed-rail system, extending 53-ft. out of the creek and 38 ft. across the northern bank. The 53-ft. long overwater portion will be supported by ten 18-in. diameter steel piles; the 38-ft. landside portion will be supported by six 18-in. diameter steel piles. The railcar will convey the dumpsters away from the creek and into a 3,906 sq. ft. dumpster collection area paved with concrete. To prevent trespassing, chain link fencing will be installed around the dumpster collection area. Garbage trucks will access the area via a 24-ft. long, 2,855 sq. ft. permeable paved road leading from the transfer facility to another existing road. The new access road will include curbs and Filterra bioretention cells (i.e. subsurface filters that treat stormwater runoff) to limit polluted runoff into the creek. The new dumpster transfer facility will include an 18-ft. deep Jensen bioretention cell to treat any runoff from the impermeable concrete before channeling the runoff through an approximately six-ft. long, 36 sq. ft. outfall path lined with rip-rap. The rip-rap will prevent erosion of the creek bank and be installed landside of the creek. Overall, the project will require 15 creek piles, six landside piles, 191 cy. of cut, and 577 cy. of fill.

The applicant anticipates a 20 to 25-year development lifespan and intends to remove all project components, including the paved areas, at the end of the project's functional life. The applicant intends to monitor the volume and contents of collected debris to inform future waste prevention measures, but has not provided a plan for how this data collection will occur. The proposed work will directly impact 0.366 acres of existing riparian habitat in the project area, including 0.172 acres of poison hemlock, 0.084 acres of quailbush scrub, and 0.11 acres of California brittlebush scrub ([Exhibit 3](#)). The Commission environmental program manager, Dr. Jonna Engel, has determined the 0.366 impacted acres of habitat constitute ESHA. Following discussion with Commission staff, the applicant submitted a revised Habitat Mitigation and Monitoring Plan (HMMP) dated May 5, 2022, which proposes restoration of 1.098 acres of native riparian habitat on the northern and southern banks to provide a 3:1 mitigation ratio. To mitigate impacts to soft-bottom habitat from the 21 proposed new piles, the applicant also proposes removal of 15 derelict piles currently in the creek from an unknown previous development. This will result in 37 sq. ft. of proposed new fill and 38 sq. ft. of eliminated existing fill in open coastal waters.

The City of Newport Beach LCP was effectively certified on January 13, 2017 and the standard of review for development within the City's permit jurisdiction is the City's certified LCP. However, the project area is located on public trust lands within the Commission's retained permit jurisdiction. Therefore, the Chapter 3 policies of the Coastal Act constitute the standard of review for this project, with the City's certified LCP used as guidance.

## **B. Biological Resources**

Section 30107.5 of the Coastal Act defines “ESHA” as:

“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.

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.

Section 30233(a) of the Coastal Act states, in relevant part:

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

(6) Restoration purposes. ...

Section 30236 of the Coastal Act states:

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

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.

The City's certified LUP contains the following polices, in relevant part:

**Policy 4.1.1 Environmentally Sensitive Habitats**

14. Require mitigation in the form of habitat creation or substantial restoration for allowable impacts to ESHA and other sensitive resources that cannot be avoided through the implementation of siting and design alternatives. ...

15. Apply the following mitigation ratios for allowable impacts to upland vegetation: 2:1 for coastal sage scrub; 3:1 for coastal sage scrub that is occupied by California gnatcatchers or significant populations of other rare species. ...

16. For allowable impacts to ESHA and other sensitive resources, require monitoring of mitigation measures for a period of sufficient time to determine if mitigation objectives and performance standards are being met. ...Unless it is determined by the City that a differing mitigation monitoring schedule is appropriate, it is generally anticipated that monitoring shall occur for a period of not less than five years.

**Policy 4.1.3 Environmental Study Areas**

Study Area No. 5: San Diego Creek

1. Utilize the following mitigation measures to reduce the potential for adverse impacts to ESA natural habitats from sources including, but not limited to, those identified in Table 4.1.1: ...

C. Prohibit the planting of non-native plant species and require the removal of non-natives in conjunction with landscaping or revegetation projects in natural habitat areas.

D. Participate in programs to control sedimentation into and within Upper Newport Bay. ...

Q. Continue to require Caulerpa protocol surveys as a condition of City approval for projects in Newport Bay and immediately notify the SCCAT when found.

Sections 30230 and 30231 of the Coastal Act requires that marine resources, including biological productivity, be maintained, enhanced, and, where feasible, restored. Section 30233(a) requires that any project involving fill of open coastal waters constitute a specifically allowed use, be the least environmentally damaging alternative feasible, and adequately mitigate any unavoidable, adverse environmental impacts. Section 30236 also limits the substantial alteration of rivers and streams to specific types of projects and Section 30240 limits ESHA impacts to only resource-dependent uses.

### **Site Characterization**

The project area must conform with the above requirements because it includes development within a stream and ESHA. Certified LUP Policy 4.1.3 designates the San Diego Creek as an Environmental Study Area (ESA), or a natural habitat area with regulations to protect sensitive plants and wildlife. The LUP indicates the subject ESA is home to multiple sensitive species, including least Bell's vireos (*Vireo bellii pusillus*), southwestern willow flycatchers (*Empidonax traillii extimus*), and California brackish water snails (*Tryonia imitator*).

The applicant submitted multiple habitat surveys conducted by a coastal ecology firm with experience in the area, Tidal Influence, between April 2018 and March 2022. The surveys indicate that the northern and southern creek banks contain a dense mix of native and non-native scrub and trees. Dominant native species in this community include California brittlebush (*Artemisia californica*), quailbush (*Atriplex lentiformis*), and arroyo willow (*Salix lasiolepis*). Narrow bands of salt marsh vegetation stretch along the creek shoreline. Non-native species dominant more sparsely vegetated areas throughout the northern bank, including poison hemlock (*Conium maculatum*), giant reed (*Arundo donax*) and ice plant (*Carpobrotus edulis*). Least Bell's vireo (*Vireo bellii pusillus*) and California gnatcatcher (*Polioptila californica*) were not observed visually or auditorily in either site survey, but may potentially use the riparian habitat onsite for nesting.

Commission environmental program manager, Dr. Jonna Engel, has reviewed the biological reports submitted with this application and determined that the project site includes habitat that constitutes ESHA under Section 30107.5. The onsite ESHA includes San Diego Creek and the native, as well as non-native, invasive plant species immediately adjacent to San Diego Creek that are functioning as riparian habitat. The native and non-native invasive vegetation provide valuable shelter, foraging area, and dispersal and movement corridor habitat for wildlife. Creeks, streams, and the associated riparian habitat in southern California are rare and may be easily disturbed and degraded by human activities and development, such as vegetation removal or ground disturbance. These habitats therefore rise to the level of ESHA.

The applicant also submitted an aquatic survey conducted by Stantec Consulting Services and Pi Environmental, conducted on April 27, 2018, which used video and acoustic methods to survey the creek bottom. The survey characterizes the water as brackish and dominated by a variety of encrusting mollusks, marine algae, and striped mullet (*Mugil cephalus*). No eelgrass or invasive *Caulerpa* (*Caulerpa spp.*) was found in the project area. The habitat surveys conducted by Tidal Influence did not identify

western pond turtles (*Emys marmorata*) in the project area, and surmise that the lack of creek basking sites and flow rate in the subject portion of creek renders it an unsuitable habitat for native turtle species. However, the City's adopted Mitigated Negative Declaration indicates that western pond turtles may still enter the project area.

### **Allowable Use**

The sole purpose of the project is to remove floating debris from the San Diego Creek and downstream waters before it enters the Ecological Reserve (a designated Marine Protected Area) and the bay. According to the adopted Mitigated Negative Declaration, the project will reduce the volume of floating debris entering the Ecological Reserve and Newport Bay by up to 80%. A reduction in trash will improve benthic, pelagic, and terrestrial habitat for wildlife; improve water quality by reducing the amount of rotting anthropogenic material; and protect the natural current from obstruction. These effects will enhance and restore biological productivity in the surrounding area. Therefore, the project meets the first requirement of Section 30233(a)(6) as a restoration project and the third prong of Section 30236 as development primarily intended to improve natural habitat. Improvement of natural habitat is a resource-dependent use allowed within ESHA under Section 30240(a). In addition to specifying allowed uses, these policies require that the project constitutes the least environmentally damaging alternative feasible.

### **Alternatives Analysis**

The applicant provided the following alternative projects intended to reduce the significant amounts of trash currently polluting Newport Beach waterways.

**1. No Project.** The City could take no additional action to remove floating debris from the San Diego Creek. Hundreds of tons (i.e. more than 200,000 lbs.) of floating debris from urban development surrounding the 16-mile creek would continue to enter the Ecological Reserve, Newport Bay, and Pacific Ocean ([Exhibit 4](#)). Trash would continue to tangle with vegetation in dense mats of overwater coverage that impede avian foraging and obstruct the natural current. Rotting anthropogenic material would continue to adversely impact water quality in the Ecological Reserve. Benthic invertebrates, pelagic fish, terrestrial animals, and other wildlife downstream of the project area would continue competing for space limited by floating and sunken debris. Visually degraded resources in the project area—such as the unvegetated expanses of dirt, ice plant patches, exposed remnant piles, and trash—would remain in their current form or worsen with future storm events.

**2. Volunteer Events, Filters, and Trash Skimmers.** The City could attempt to use the grant from OPC to: A) organize additional volunteer clean-up events, B) install more catch basin screens/filters and Continuous Deflective Separation Units in Newport Beach storm drains, and C) install new 'trash skimmers' in Newport Bay. (These technologies are defined in the 'Project Description and Location' subsection above.) Method A would have a limited impact on downstream waterways; volunteers cannot access most portions of the Ecological Reserve without trampling vegetation and the success of volunteer events for Newport Bay



is often determined by unpredictable factors, such as weather and social media outreach campaigns. Even with significant volunteer attendance, the volume of collected trash is limited to what volunteers can carry. Method B is an effective way to keep trash from washing into storm drains, but would have no impact on the San Diego Creek and Ecological Reserve—the City indicates that all storm drains and outfall pipes in Newport Beach empty into Newport Bay and the Pacific Ocean. For this method to protect the Ecological Reserve, upstream communities such as Irvine and Lake Forest would have to install the catch basin screens/filters and Continuous Deflective Separation Units in any storm drains or outfall locations leading to the creek. Even if the upstream communities agreed to pursuing Method B in their communities, it would not curtail pollution from wind mobilization and illegal dumping. Similarly, Method C would have no impact on the San Diego Creek and Ecological Reserve unless trash skimmers were installed in the creek. The City indicates that trash skimmers are limited to collection of 50 lbs. of debris per day, allowing annual collection of less than 10% of the estimated trash volume that flows down San Diego Creek.<sup>7</sup> The trash skimmers would have a less than significant impact on pollution entering Newport Bay and the Pacific Ocean. Alternative 2 would not result in impacts to soft-bottom habitat or terrestrial ESHA. However, it also would not address the current impacts to biological productivity in the Ecological Reserve described above. The unvegetated dirt expanses, ice plant patches, and derelict piles in the existing project area would remain as they are.

**3. Boom System.** The City could install solitary trash booms at multiple points in San Diego Creek with existing paved service roads. Floating debris would gather behind the boom and either drift toward the shoreline or collect in an increasing mass in the middle of the creek for eventual removal by a clamshell excavator and garbage truck. Alternative 3 would not result in impacts to soft-bottom creek habitat or existing ESHA. However, the two booms currently installed in the Santa Ana Delhi Channel and North Star Beach already pose maintenance difficulties for the City. The gathered trash forms an unsightly pile and degrades visual resources, as proven by the frequent complaints the City receives from community-members regarding the two current booms. Portions of the trash pile can become water-logged enough to sink in the creek bed ([Exhibit 4](#)). Without accompanying support structures like the water wheel system, booms are easily detached during storm events or under large trash loads and can become a new piece of plastic pollution themselves. The City would have to make frequent service trips to scoop trash with excavators and convey it to waiting garbage trucks, increasing greenhouse gas emissions and potentially chemical pollution from the large vehicles near the creek. Alternative 3 would likely not include water quality protection measures like bioretention cells unless a new access road were paved (which would likely require

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<sup>7</sup> 50 lbs. per day \* 365 days = 18,250 lbs. per year  
18,250 annual lbs. / 200,000 annual lbs. \* 100% = 9.13%



ESHA mitigation.) The unvegetated dirt expanses, ice plant patches, and derelict piles in the existing project area would remain.

**4. Full-Capture System.** The City could install a full-capture trash system similar to the existing Santa-Ana Delhi Channel Diversion structure.<sup>8</sup> This would consist of a concrete and steel structure with large nets to catch large debris and static screens to catch sediment. (Some full-capture systems also trap and discharge pollutants into direct sanitation lines for treatment.<sup>9</sup>) Alternative 4 would collect a range of trash sizes, but would require a far greater volume of soft-bottom fill and landside grading. It is unclear how pelagic organisms would swim under or around the structure considering its effectiveness stems from complete coverage of the waterway. The City has also indicated Alternative 4 would cost between \$12 and 15 million, significantly exceeding the applicant's \$1.68 million project grant. Visually degraded resources in the area would likely be restored to mitigate the significant impacts to ESHA and soft-bottom habitat.

**5. Floating Trash Wheel System (Proposed).** As previously described, the City would install a floating water wheel system reliant on solar and hydraulic energy to collect trash from two booms in the creek. The project would impact 0.366 total acres of ESHA, mitigated by the City at a 3:1 ratio via restoration of 1.098 acres of native riparian habitat on the northern and southern creek banks. The project is sited near an existing access road to minimize the amount of new hardscape required, as well as in a portion of the north bank with degraded habitat available to minimize the impacts of proposed hardscape. Permeable pavement able to filter water runoff up to an 85<sup>th</sup> percentile storm flow, bioretention cells, and curbs will minimize introduction of runoff from the access road to the creek. The installation of two dumpsters will require fewer service trips than a single dumpster (or no dumpster in the case of Alternative 2). According to the adopted Mitigated Negative Declaration, the minimum number of garbage truck and maintenance vehicle trips necessary to maintain the proposed development will generate approximately 518 metric tons of greenhouse gas emissions per year, well below the 3,000-metric ton significance threshold used by the South Coast Air Quality Management District for review of non-industrial land use. The floating trash interceptor system will not generate greenhouse gas by relying solely on solar and hydraulic power. A total 37 sq. ft. of fill would be installed in the creek, mitigated with the removal of 15 derelict piles constituting 38 sq. ft. of eliminated fill. Approximately 707 sq. ft. of new overwater coverage would also be installed in the creek, mitigated by the removal of up to 80% of the floating debris. As described above, trash from the creek tangles with dead vegetation to form dense mats of overwater coverage. New trash is currently introduced to the Ecological Reserve, Newport Bay, and the Pacific Ocean from the creek every day to float on the water surface, sit indefinitely on soft-

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<sup>8</sup> Ref. <https://stormtrap.com/project/santa-ana-delhi-channel-diversion/>

<sup>9</sup> Ref. [http://cams.ocgov.com/Web\\_Publisher\\_Sam/Agenda07\\_12\\_2016\\_files/images/O01016-000765A.PDF](http://cams.ocgov.com/Web_Publisher_Sam/Agenda07_12_2016_files/images/O01016-000765A.PDF)

bottom habitat, or wash up onto creek banks. The proposed project will add long-term overwater coverage and fill to the channel during the 20- to 25-year functional lifespan, but will drastically reduce impacts to biological productivity associated with anthropogenic waste pollution. The project has been designed with the minimum number of piles necessary to support the structure in the event of a 100-year storm. The boom system has been designed with unequal lengths to ensure the U-shape will be pushed to the south bank if disconnected from the piles rather than mobilized downstream as a new piece of debris. Based on the success of the similar floating trash interceptor currently installed in a Baltimore harbor,<sup>10</sup> the applicant anticipates an up to 80% decrease in the volume of trash entering the Ecological Reserve from San Diego Creek.

Anthropogenic debris results in a broad range of biological productivity impacts, including destruction of benthic, pelagic, and terrestrial habitat. The pollution documented in [Exhibit 4](#) demonstrates a clear need for collection of trash from San Diego Creek which would not be satisfied by Alternative 1 (No Project). Alternative 2 (Volunteer Events, Filters, and Trash Skimmers) offers useful methods of collecting trash from Newport Bay and the Pacific Ocean, but would have no impact on biological productivity in the Ecological Reserve and San Diego Creek. Alternative 3 (Boom System) is a problematic method of trash capture that may do more harm than good considering the impacts to visual resources, water quality, and air quality. Alternative 4 (Full-Capture System) would have the greatest impact on ESHA and soft-bottom habitat in the project area. It would also function as a massive concrete wall obstructing the viewshed from either side of the creek and exceed the City's project grant.

The City has collaborated with the community and local resource agencies to plan Alternative 5 (Proposed Project) for at least five years. During that time, they received several recommendations from community-members, the CDFW, Orange County Public Works, and technical specialists that informed the project design. The resulting project has been designed to minimize environmental impacts to the greatest extent feasible while still addressing the issue of trash pollution in downstream coastal waterways. While the project will require paved areas, fill, and overwater coverage for the 20- to 25-year development lifespan, it will reduce trash pollution in the Ecological Reserve, Newport Bay, and Pacific Ocean from San Diego Creek by up to 80%.

Therefore, the proposed development meets the second criteria of sections 30233(a), 30236, and 30240 as the least environmentally damaging alternative feasible. For consistency with these policies, the project must also adequately mitigate all unavoidable, adverse environmental impacts.

### **Proposed Mitigation**

The project ecological consultant's initial HMMP, dated April 27, 2018, estimated the project would impact 0.07 acres of ice plant mats, 0.11 acres of fennel, and 0.22 acres

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<sup>10</sup> Ref. <https://www.mrtrashwheel.com/>

of quailbush scrub. The applicant initially proposed restoration of 0.33 acres of native vegetation to mitigate the 0.22-acre impact to existing quailbush scrub without mitigating the impacts to existing fennel patches. However, the Commission's senior staff ecologist determined the 0.11 acres of fennel also qualified as ESHA under Section 30107.5 despite its status as an invasive, non-native species. The location of the fennel patches near the creek shoreline rendered the riparian area valuable wildlife habitat and easily disturbed by human development. After discussion with the Commission's senior staff ecologist, the applicant revised the proposed HMMP to mitigate all ESHA impacts (including impacts to fennel) with 0.99 acres of native habitat restoration on the northern creek bank.

In February 2022, the applicant was required by CDFW to conduct updated habitat surveys. The new surveys, conducted on four days between February and March 2022, reflect temporal changes to the existing vegetation alliances and estimate that the project will now impact 0.172 acres of poison hemlock patches, 0.084 acres of quailbush scrub, and 0.11 acres of California brittlebush scrub. The applicant initially proposed 0.194 acres of restored habitat as mitigation solely for the impacted quailbush and California brittlebush scrub, reasoning that poison hemlock is not a beneficial part of the riparian ecosystem and does not constitute ESHA. However, the Commission's senior staff ecologist determined that the poison hemlock still serves as valuable riparian habitat and does not pose a threat to most wildlife species. Following additional discussion with the staff ecologist, the applicant submitted a final HMMP dated May 5, 2022. The final HMMP proposes restoration of 1.098 acres of native habitat on the northern and southern banks to mitigate project impacts to a total 0.366 acres of impacted ESHA ([Exhibit 3](#)). This would provide a 3:1 mitigation ratio for impacted ESHA.

The submitted HMMP provides the following success criteria that must be fulfilled within five years of restoration:

1. Percent of absolute cover of native plant species must be  $\geq 65\%$ .
2. 11 of the 17 species in the plant palette are present in the revegetation area.
3. Less than 10% absolute vegetative cover of non-native plant species with less than 5% being nonnative perennial plant species.
4. No more than 1% vegetative cover of invasive non-native plant species rated as high by the California Invasive Plant Council (Cal-IPC).

Regarding ESHA mitigation, certified LUP Policy 4.1.1 requires a 3:1 mitigation ratio for coastal sage scrub that is occupied by California gnatcatchers or other significant rare wildlife populations. The policy also requires a minimum five-year monitoring period to ensure the mitigation meets outlined performance standards. The Commission has typically required a 3:1 mitigation ratio for project impacts to riparian habitat. The proposed 3:1 mitigation ratio and five-year monitoring plan is consistent with LUP requirements and past Commission precedent.

While the applicant has coordinated with local resource agencies prior to submittal of the subject application, the project still requires permits from the CDFW and RWQCB, and may require a permit from the USACE. **Special Condition 1** requires the applicant to comply with all local resource agency requirements and submit any project revisions to the Executive Director for determination whether a CDP amendment is required. **Special Condition 3** requires an appropriately trained biologist to monitor the project site at least once a week during construction and prohibits the applicant from disturbing any habitat area beyond the impacts specifically authorized and mitigated under the subject CDP unless an amendment is obtained.

As proposed, all construction and vegetation removal will be scheduled to avoid the avian nesting season occurring from February 1<sup>st</sup> to September 1<sup>st</sup>. If work does occur during this timeframe, a qualified biologist shall conduct two pre-construction surveys for nesting birds to ensure no active nests will be impacted. If an active nest is identified within the subject area of work, regular surveys shall continue and the applicant shall implement a 300-ft. minimum avoidance buffer for all passerine bird nests, or 500-ft. minimum buffer for all protected or raptor species, and develop a specific Nesting Bird Management Plan. The Nesting Bird Management Plan shall be submitted to the CDFW prior to commencement of the work, and the work will not begin until the CDFW has acknowledged receipt of the report and confirmed all established buffers. To ensure the nesting bird surveys and native revegetation are carried out as proposed, **Special Condition 4** requires pre-construction nesting bird surveys conducted per the CDFW guidelines.

In addition to terrestrial ESHA impacts, the project will impact soft-bottom creek habitat with the installation of 15 new creek piles resulting in 37 sq. ft. of new fill. The proposed 36 sq. ft. of rip-rap will be located on the north bank (included in the 0.172 acres of mitigated poison hemlock impacts) and will not result in additional fill of the creek ([Exhibit 3](#)). The submitted HMMP dated May 7, 2022 proposes removal of 15 derelict piles, resulting in approximately 38 sq. ft. of eliminated fill, to mitigate aquatic habitat impacts. The Commission's senior staff ecologist has determined that this will be adequate to mitigate aquatic habitat impacts. **Special Condition 5** requires the permittee to carry out the HMMP as proposed and report any proposed revisions to the Executive Director for determination whether a CDP amendment is required.

The applicant submitted an eelgrass survey for the project site, conducted on April 27, 2018, which did not identify any eelgrass within the project site. Eelgrass surveys completed between August through October are valid until the resumption of active growth (i.e., March 1) and the subject eelgrass survey is no longer valid for project construction. Therefore, **Special Condition 6** requires a new eelgrass survey and identifies the procedures necessary to be completed prior to beginning construction. If the pre-construction eelgrass survey required by **Special Condition 6** identifies new eelgrass beds that would be impacted by the proposed dock construction, the applicant must apply for a CDP amendment or new CDP to re-design and/or relocate the new dock to avoid eelgrass impacts.

The applicant has also submitted a Caulerpa survey conducted in conjunction with the eelgrass survey on April 27, 2018. The bathymetric surveys did not find evidence of Caulerpa onsite—however, Caulerpa surveys only remain valid for 90 days. Given the potential for the Caulerpa species to take over eelgrass and other marine habitat in the project vicinity, **Special Condition 7** requires the applicant to survey the project area for the presence of Caulerpa prior to commencement of construction activities. If any Caulerpa is detected within the project area, **Special Condition 7** identifies the procedures necessary to be completed prior to beginning any construction.

### **Conclusion**

The project area contains riparian habitat and open coastal waters protected under Chapter 3 policies of the Coastal Act; however, the proposed development will serve a coastal-dependent use as habitat restoration, constitute the least environmentally damaging alternative feasible, and adequately mitigate unavoidable impacts to terrestrial and aquatic habitat. Collection of debris and trash from the watershed will maintain, enhance, and restore biological productivity. Therefore, as proposed and conditioned, the project is consistent with Chapter 3 policies of the Coastal Act regarding protection of biological resources, as well as relevant policies of the certified LUP.

### **C. Water Quality**

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 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 waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

The City's certified LUP contains the following relevant language and policies:

#### **4.3.1 [Total Maximum Daily Load] TMDL**

8. 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. ...

22. Require beachfront and waterfront development to incorporate BMPs designed to prevent or minimize polluted runoff to beach and coastal waters. ...

#### **4.3.2 [National Pollutant Discharge Elimination System] NPDES**

1. Promote pollution prevention and elimination methods that minimize the introduction of pollutants into coastal waters, as well as the generation and impacts of dry weather and polluted runoff. ...

6. Implement and improve upon best management practices (BMPs) for residences, businesses, new development and significant redevelopment, and City operations. ...

11. Require new development to minimize the creation of and increases in impervious surfaces, especially directly connected impervious areas, to the maximum extent practicable. Require redevelopment to increase area of pervious surfaces, where feasible. ...

Sections 30230 and 30231 of the Coastal Act require the maintenance, enhancement, and restoration of biological productivity in coastal waters, in part by limiting waste introduction to the greatest extent feasible. Certified LUP Policy 4.3.2 requires promotion of “pollution prevention and elimination methods,” as well as improvement of BMPs for City operations.

The City has taken previous actions (summarized in the ‘Project Description and Location’ subsection) and proposes the subject project to collect trash and debris from community waterways. However, OPC’s Statewide Microplastic Strategy published in February 2022 indicates that waste capture must be preceded by limits on waste production.<sup>11</sup> At the Commission hearing for Item W6e, “Resolution: Single Use Plastic-Free Coastal Commission Meetings,” on April 6, 2022, multiple commissioners indicated that local and State governments cannot rely on voluntary plastic reduction from individual businesses as the primary method of addressing microplastic pervasiveness.<sup>12</sup> Curtailing the provision of single-use foodware, accessories, bags, and balloons is more effective than attempting to collect these products from coastal waterways. Even if a large amount of plastic and Styrofoam waste is removed from the

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<sup>11</sup> Ref.

[https://www.opc.ca.gov/webmaster/ftp/pdf/agenda\\_items/20220223/Item\\_6\\_Exhibit\\_A\\_Statewide\\_Microplastics\\_Strategy.pdf](https://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20220223/Item_6_Exhibit_A_Statewide_Microplastics_Strategy.pdf)

<sup>12</sup> Ref. <https://documents.coastal.ca.gov/reports/2022/4/W6e/W6e-4-2022report.pdf>



marine environment (a task that requires significant funding and time), this will not curb the emission of greenhouse gases as these materials slowly degrade in inland landfills.<sup>13</sup>

The City could further reduce the volume of trash entering San Diego Creek, the Ecological Reserve, Newport Bay, and the Pacific Ocean by restricting the provision of plastic balloons, plastic bags, plastic foodware, and expanded polystyrene (Styrofoam) products in Newport Beach. Ordinances to implement such requirements were approved by the Newport Beach Water Quality and Coastal Tidelands Committee in July 2021, but have not been acted on by the City Council as of the subject staff report's publication. Most nearby coastal cities have adopted ordinances regulating single-use foodware, including Laguna Beach, Manhattan Beach, Long Beach, Redondo Beach, and Los Angeles. According to a 2014 study published by the National Oceanic and Atmospheric Administration, trash pollution costs Orange County residents a considerable amount due to loss of tourism—the study found that a 25% reduction in marine beach debris would save Orange County residents \$32 million over three months.<sup>14</sup> Commission staff have discussed the importance of such proactive measures with the City and issued a comment letter requesting that the City Council pass these pollution restrictions prior to the date of the subject hearing, but the Commission has not received a written commitment from the City.

The applicant indicates that the proposed project is part of a comprehensive trash reduction campaign that will ideally include point-source curtailment in addition to downstream collection. The applicant states that the trash interceptor system will not detract from the City Council's progress in passing restrictions on single-use waste. The proposed project is a result of more than five years of community outreach, resource agency coordination, and engineering efforts—it is a valuable method of removing trash from the creek and preventing it from entering the Ecological Reserve. Policy implementation to reduce point-source pollution would benefit the City, its residents, and its visitors, but would not entirely resolve the issue or trash which flows down the creek from other cities. The photographs [Exhibit 4](#) show a demonstrated need for implementation of as many trash reduction methods as possible and the project will have a greater positive impact on water quality than the 'No Project' alternative. Beyond project approval by the Coastal Commission, relevant parties and agencies including OPC, RWQCB, environmental advocates, and City staff can continue outreach to the City Council in support of policies to support point source pollution reduction.

In addition to protection against trash pollution, sections 30230 and 30232 of the Coastal Act require protection against the spillage of crude oil, gas, petroleum products, or hazardous materials in relation to any development. These requirements are mirrored by certified LUP policies 4.3.1 and 4.3.2, which specifically require incorporation of BMPs and minimization of new impermeable area to reduce polluted runoff. As

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<sup>13</sup> Ref. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0200574>

<sup>14</sup> Ref. <https://stacks.stanford.edu/file/druid:ks485yz2876/MarineDebrisEconomicStudy.pdf>

previously discussed, the San Diego Creek accounts for a significant volume of freshwater flow into Newport Bay. It is also 800 ft. upstream of a designated marine protected area, the Ecological Reserve. Construction at the project site has the potential to discharge polluted runoff and increase sediment loads into these sensitive areas and adversely impact marine water quality.

The project will install 4,573 sq. ft. of impervious surfaces, resulting in an 8% increase to the existing impervious area onsite. The applicant indicates that this is the minimum amount of impervious hardscape necessary to provide the garbage trucks with a sufficient turning radius, accommodate the two dumpsters, and ensure safe maintenance access to the proposed aquatic components. The majority of new pavement will be pervious pavers and surfaces capable of capturing pollutants in surface water flow associated with an 85<sup>th</sup> percentile storm volume, as well as curbs and bioretention cells able to capture and treat any additional volume. The new pavement covering ESHA will be mitigated at a 3:1 ratio as detailed in previous sections of this report.

The applicant has provided an operations and maintenance plan for the proposed Filterra bioretention cells and pervious pavement, including inspection and training protocol, to ensure these features are maintained on a continuous basis. The boom system can operate under 25-year storm conditions, but has been designed with unequal lengths to ensure it would be pushed to the south bank in the event of breakage, rather than mobilizing as debris. The fixed-rail system can withstand a 100-year storm event, but both dumpsters will be removed from the floodplain at least three days prior to any anticipated storm event to ensure the contents do not enter the creek. The Mitigated Negative Declaration estimates the construction will take six months. The applicant proposes BMPs consistent with the City's Grading Ordinance (which is not part of the certified LCP), including temporary vehicle track-out control (i.e. mats placed below construction vehicles to minimize vibratory soil displacement), turbidity curtains, construction waste removal. The applicant has applied for a Section 401 Water Quality Certification from the RWQCB, but the permit has not yet been issued.

The Commission's water quality staff have reviewed the applicant's submitted Mitigated Negative Declaration, hydrology reports, and resource permitting agency reports. Water quality staff agree with most BMPs in the proposed plans, but recommend that the applicant prohibit the use of plastic netting in any temporary erosion BMPs to avoid wildlife entanglement and plastic pollution. Water quality staff also recommend the use of secondary containment BMPs (i.e.; debris boom and/or tarps) to prevent discharge of construction pollutants to the underlying creek during the construction phase of this project. To minimize water quality impacts, water quality staff recommend pile installation via the vibratory hammer method (or if this is infeasible, the impact hammer method). For heavy equipment used in overwater construction or construction adjacent to coastal waters, water quality staff recommends the use of vegetable oil-based hydraulic fluids. Biodiesel is a non-petroleum alternative fuel that is less toxic that can be used in some construction equipment and vehicles operating in or near sensitive aquatic habitats.



To ensure the project adheres to the recommendations above, the Commission imposes **Special Condition 9**, which requires the applicant to provide a construction staging plan for review and approval of the Executive Director. The staging plan must demonstrate that the applicant will use vegetable oil-based hydraulic fluids and/or biodiesel, as well as pollutant containment products (such as tarps or temporary booms). **Special Condition 9** also requires the plan to demonstrate that the applicant shall minimize impacts to soft-bottom habitat through the use of the vibratory hammer method for pile installation—if this is infeasible, the plan may denote the use of the impact hammer method. **Special Condition 10** requires the applicant to adhere to additional construction BMPs, such as incorporating non-plastic containment measures and avoiding construction waste pollution.

As proposed and conditioned, the project will provide adequate onsite drainage and minimize the effect of construction activities on the marine environment. Therefore, the Commission finds that the proposed development, as conditioned, conforms to the Coastal Act Chapter 3 and certified LUP policies regarding water quality.

## D. Coastal Hazards

Section 30253 of the Coastal Act states, in relevant part:

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. [...]

The City's certified LUP contains the following policy, mirroring Section 30253:

### **Policy 2.8.1 Hazards and Protective Devices**

- 4. Require new development to assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

Coastal Act Section 30253 and certified LUP Policy 2.8.1 require new development to minimize risks to life and property by assuring stability and avoiding any contribution to erosion or the need for shoreline or bluff protection. The applicant has submitted a geotechnical report conducted by Group Delta, dated February 9, 2021, that describes the existing site conditions and recommended safety measures for the proposed project. Based on exploratory borings, the report characterizes soil composition in the project area as an upper layer of artificial sand and silt fill, a middle layer of dense clay and silt, and a lower layer of coarse-grained alluvium deposits within the 75-ft. depth

explored in the borings. Groundwater was discovered at an approximate 14-ft. depth below the highest bank elevation. According to the report, these conditions pose a risk of partial liquefaction in an earthquake and up to 2-ft. of scour (i.e. sediment loss around the base of pilings).

The report recommends grout sleeves and protective coatings for the portion of creek piles located between the mean high water line and the mud line. The report also recommends installing creek piles at various specific elevations depending on their location in the creek to avoid submergence during storm events. The report also specifies the optimal float design to ensure sufficient buoyancy and lateral strength against varying wind and flow conditions. This includes the use of epoxy-coated steel hull pontoons, watertight compartments within the pontoons, and a 5.5-ft. wide flow channel (i.e. the conveyor belt). The project has been designed in conformance with all geotechnical recommendations of the submitted report. Commission engineering staff have reviewed the submitted materials and concur that the proposed design, including the arrangement of piles and float design, will be sufficient to support the development in the event of a 100-year storm. The project also includes an approximately 36 sq. ft., rip-rap lined path to output treated runoff from the dumpster transfer facility to the creek without eroding the north bank soil. Therefore, the project has been adequately designed for safety against liquefaction, flooding, and erosion hazards.

The Commission's scientific update to its Sea Level Rise Policy Guidance, adopted on November 7, 2018, indicates that a "change in frequency or intensity of coastal storms" is anticipated with climate change within the proposed development's lifespan.<sup>15</sup> This could result in increased rainfall and flooding that exceed the 85<sup>th</sup> percentile and bioretention cell function capacity. In the event of extreme weather events or multiple 100-year storms, the floating trash interceptor system may experience damage or impaired function but will not pose any major risk to public safety. To ensure the applicant acknowledges the risks inherent to the project location, **Special Condition 11** requires the applicant to assume all risks of the development, indemnify the Commission in the event of any damage resulting from the approved project, and acknowledge that future removal may be determined necessary if at any point the development poses a risk to public safety.

Therefore, as proposed and conditioned, the project is consistent with Chapter 3 Coastal Act policies regarding coastal hazard policies, as well as the certified LCP.

## E. 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

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<sup>15</sup> Ref.

[https://documents.coastal.ca.gov/assets/slr/guidance/2018/0\\_Full\\_2018AdoptedSLRGuidanceUpdate.pdf](https://documents.coastal.ca.gov/assets/slr/guidance/2018/0_Full_2018AdoptedSLRGuidanceUpdate.pdf)

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

The City's certified LUP contains the following policy, mirroring Section 30251:

**Policy 4.4.1 Coastal Views**

1. Protect and, where feasible, enhance the scenic and visual qualities of the coastal zone, including public views to and along the ocean, bay, and harbor and to coastal bluffs and other scenic coastal areas.

Section 30251 of the Coastal Act requires that the scenic and visual qualities of coastal areas be protected and, where feasible, restored and enhanced. Certified LUP Policy 4.4.1 also includes policies encouraging restoration and enhancement of visual resources. The project site is located in and adjacent to the San Diego Creek Channel between two major arterial roadways (Jamboree Road and SR 73), with a private automotive dealership to the north. While the project area contains riparian vegetation, it is a flood control channel with patches of unvegetated dirt, concrete, and ice plant patches surrounded by urban development. A concrete weir located under the Jamboree Road bridge renders it difficult for hikers and pedestrians to access Upper Newport Bay from the northern creek bank where the project would be installed. The primary viewshed in this area would be observed from the San Diego Creek trail on the southern creek bank.

The proposed 14-ft. tall trash interceptor system will be located at the base of the northern bank and would maintain existing views of riparian habitat from the opposite bank. The project location has been chosen in part due to its existing visual degradation and the limited public views available. The trash will be continuously raked onto the conveyor belt rather than stagnating in an unsightly heap behind the boom system. A canopy with solar panels will also cover most of the wheel structure, reducing the amount of mechanical articulation visible. The dumpsters will be located behind the wheel structure. The applicant will conduct monthly broom-sweeping of the dumpster transfer facility. While the proposed structure is not visually compatible with the existing landscape of riparian habitat and creek shoreline, it has been designed to minimize view impacts to the greatest extent feasible. The paved road, fenced dumpster transfer facility, water wheel barge, and boom system are all necessary to address the issues discussed in the 'Biological Resources' subsection above.

Furthermore, the project will mitigate any visual resource impacts with restoration and enhancement of other visual resources onsite. The project would restore 1.098 acres of existing degraded habitat with native riparian species; remove 15 derelict creek piles which extrude from the creek and are currently visible from the south bank ([Exhibit 4](#));

and reduce the volume of anthropogenic debris entering downstream coastal waters by up to 80%. The City has indicated hundreds of tons of trash matted with dead vegetation must currently be removed from the creek during years of heavy rainfall—the project will improve this visually degraded resource.

Therefore, as proposed and conditioned, the Commission finds the project consistent with Section 30251 of the Coastal Act and the visual resource preservation policies of the certified LUP.

## **F. Cultural Resources**

Section 30244 states in relevant part:

Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

The City's certified LUP contains the following relevant language and policies:

### **Policy 4.5.1 Paleontological and Archaeological Resources**

1. Require new development to protect and preserve paleontological and archaeological resources from destruction, and avoid and minimize impacts to such resources. If avoidance of the resource is not feasible, require an in situ or site-capping preservation plan or a recovery plan for mitigating the effect of the development.
  
2. Require a qualified paleontologist/archeologist to monitor all grading and/or excavation where there is a potential to affect cultural or paleontological resources. If grading operations or excavations uncover paleontological/archaeological resources, require the paleontologist/archeologist monitor to suspend all development activity to avoid destruction of resources until a determination can be made as to the significance of the paleontological/ archaeological resources. If resources are determined to be significant, require submittal of a mitigation plan. Mitigation measures considered may range from in-situ preservation to recovery and/or relocation. Mitigation plans shall include a good faith effort to avoid impacts to cultural resources through methods such as, but not limited to, project redesign, in situ preservation/capping, and placing cultural resource areas in open space.

Section 30244 of the Coastal Act requires reasonable mitigation measures for development that would adversely impact archaeological or paleontological resources. Policy 4.5.1 of the certified LUP specifies additional requirements, including a monitoring and resource preservation plan.

The City's Mitigated Negative Declaration indicates that the applicant has notified representatives of the Juaneño Band of Mission Indians – Acjachemen Nation, San Gabriel Band of Mission Indians, and Gabrieleño Band of Mission Indians – Kizh Nation of the project and requested consultation. Representatives of the Gabrieleño Band of

Mission Indians-Kizh Nation determined that there was a potential to encounter tribal archaeological resources during the proposed grading work. Disturbing such resources, if present, could result in a significant impact to archaeological resources. The applicant has proposed mitigation measures, including retention of a tribal monitor approved by the Gabrieleño Band of Mission Indians-Kizh Nation to observe all ground-disturbing activities and treatment methods for any potential resource discovery.

To ensure that these measures and additional mitigation occurs, **Special Condition 12** requires the applicant to submit and adhere to a Cultural Resource Treatment and Monitoring Plan, in accordance with [\(Appendix B\)](#), for Executive Director review and approval prior to issuance of the subject permit. If any potential tribal and/or archeological resources are discovered, **Special Condition 12** requires the applicant to notify the Executive Director for a determination as to whether an amendment is necessary to comply with the treatment method preferred by the affected Native American tribe.

Therefore, as conditioned, the Commission finds that the proposed project is consistent with Section 30244 of the Coastal Act and the cultural resources policies of the City's certified LCP.

## **G. Local Coastal Program**

The City of Newport Beach LCP was effectively certified on January 13, 2017 and the standard of review for development within the City's permit jurisdiction is the City's certified LCP. However, the project area is located on public trust lands within the Commission's retained permit jurisdiction. Therefore, the Chapter 3 policies of the Coastal Act constitute the standard of review for this project, with the City's certified LCP used as guidance.

## **H. California Environmental Quality Act (CEQA)**

Section 13096 of Title 14 of the California Code of Regulations requires Commission approval of Coastal Development Permits to be supported by a finding showing the permit, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). 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 that the activity may have on the environment.

The City of Newport Beach is the lead agency for purposes of CEQA compliance. On September 25, 2018, the Newport Beach City Council adopted Mitigated Negative Declaration No. 2018-002, which determined that the project had been designed to mitigate all potential significant environmental effects. The Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full: as conditioned, there are no feasible alternatives or additional feasible mitigation measures available that would substantially lessen any significant adverse effect that the activity may have

on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate potential impacts, 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**

1. City of Newport Beach Certified Local Coastal Program.
2. Final Initial Study/Mitigated Negative Declaration, prepared by Stantec Consulting Services, Inc. on September 12, 2018.
3. Geotechnical Investigation Report, prepared by Group Delta Consultants, Inc. on February 9, 2021.
4. Habitat Mitigation and Monitoring Plan, prepared by Tidal Influence, LLC on May 11, 2022.
5. Memorandum: Orange County Construction Permit Submittal, prepared by Burns & McDonnell on June 14, 2021.
6. San Diego Creek Hydraulic Analysis, prepared by Zeppelin Floods, LLC on December 9, 2020.

## **APPENDIX B – CULTURAL RESOURCES SIGNIFICANCE TESTING PLAN PROCEDURES**

- A. An applicant seeking to recommence construction following discovery of the cultural deposits shall submit a Significance Testing Plan for the review and approval of the Executive Director. The Significance Testing Plan shall identify the testing measures that will be undertaken to determine whether the cultural deposits are significant. The Significance Testing Plan shall be prepared by the project archaeologist(s), in consultation with the Native American monitor(s), and the Most Likely Descendent (MLD) when State Law mandates identification of a MLD. The Executive Director shall make a determination regarding the adequacy of the Significance Testing Plan within 10 working days of receipt. If the Executive Director does not make such a determination within the prescribed time, the plan shall be deemed approved and implementation may proceed.
1. If the Executive Director approves the Significance Testing Plan and determines that the Significance Testing Plan's recommended testing measures are de minimis in nature and scope, the significance testing may commence after the Executive Director informs the permittee of that determination.
  2. If the Executive Director approves the Significance Testing Plan but determines that the changes therein are not de minimis, significance testing may not recommence until after an amendment to this permit is approved by the Commission.
  3. Once the measures identified in the significance testing plan are undertaken, the permittee shall submit the results of the testing to the Executive Director for review and approval. The results shall be accompanied by the project archaeologist's recommendation as to whether the findings are significant. The project archaeologist's recommendation shall be made in consultation with the Native American monitors and the MLD when State Law mandates identification of a MLD. The Executive Director shall make the determination as to whether the deposits are significant based on the information available to the Executive Director. If the deposits are found to be significant, the permittee shall prepare and submit to the Executive Director a supplementary Archaeological Plan in accordance with subsection B of this appendix and all other relevant subsections. If the deposits are found to be not significant, then the permittee may recommence grading in accordance with any measures outlined in the significance testing program.
- B. An applicant seeking to recommence construction following a determination by the Executive Director that the cultural deposits discovered are significant shall submit a supplementary Archaeological Plan for the review and approval of the Executive Director. The supplementary Archaeological Plan shall be prepared by the project archaeologist(s), in consultation with the Native American monitor(s), the Most Likely Descendent (MLD) when State Law mandates identification of a MLD, as well as



others identified in the special condition. The supplementary Archaeological Plan shall identify proposed investigation and mitigation measures. The range of investigation and mitigation measures considered shall not be constrained by the approved development plan. Mitigation measures considered may range from in-situ preservation to recovery and/or relocation. A good faith effort shall be made to avoid impacts to cultural resources through methods such as, but not limited to, project redesign, capping, and placing cultural resource areas in open space. In order to protect cultural resources, any further development may only be undertaken consistent with the provisions of the Supplementary Archaeological Plan.

1. If the Executive Director approves the Supplementary Archaeological Plan and determines that the Supplementary Archaeological Plan's recommended changes to the proposed development or mitigation measures are de minimis in nature and scope, construction may recommence after the Executive Director informs the permittee of that determination.
  2. If the Executive Director approves the Supplementary Archaeological Plan but determines that the changes therein are not de minimis, construction may not recommence until after an amendment to this permit is approved by the Commission.
- C. Prior to submittal to the Executive Director, all plans required to be submitted pursuant to this special condition, except the Significance Testing Plan, shall have received review and written comment by a peer review committee convened in accordance with current professional practice that shall include qualified archaeologists and representatives of Native American groups with documented ancestral ties to the area. Names and qualifications of selected peer reviewers shall be submitted for review and approval by the Executive Director. The plans submitted to the Executive Director shall incorporate the recommendations of the peer review committee. Furthermore, upon completion of the peer review process, all plans shall be submitted to the California Office of Historic Preservation (OHP) and the NAHC for their review and an opportunity to comment. The plans submitted to the Executive Director shall incorporate the recommendations of the OHP and NAHC. If the OHP and/or NAHC do not respond within 30 days of their receipt of the plan, the requirement under this permit for that entities' review and comment shall expire, unless the Executive Director extends said deadline for good cause. All plans shall be submitted for the review and approval of the Executive Director.