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STAFF REPORT: REGULAR CALENDAR

Application No.: **5-20-0017**

Applicant: **City of Long Beach**

Agents: **Lenny Arkinstall and Patrick Webster, Los Cerritos Wetlands Stewards**

Project Location: Marketplace Marsh, South of Second Street and East of Shopkeeper Road, Long Beach, Los Angeles County (APN: 7237-020-903)

Project Description: Removal of approximately 60,000 sq. ft. of native and nonnative vegetation utilizing hand tools and herbicide within Marketplace Marsh to increase water circulation, improve the wetland habitat, and inhibit mosquito reproduction; followed by a maintenance plan consisting of limited and periodic removal of native and non-native plant overgrowth outside of the avian breeding season for a term of five years.

Staff Recommendation: Approval with conditions.

SUMMARY OF STAFF RECOMMENDATION

The City of Long Beach is proposing to remove approximately 60,000 square feet of vegetation utilizing hand tools and herbicide within Marketplace Marsh, followed by periodic removal of native and non-native overgrowth for a period of five years for the purposes of habitat restoration and mosquito abatement.

The project is located in Marketplace Marsh, a 6.5-acre brackish marsh that persists in the salty soil of the historic Los Cerritos Wetlands due to freshwater input from surface runoff via drains and surface flows from the adjacent Marketplace shopping center. The project site maintains aquatic features and supports degraded vegetated wetlands in the form of southern brackish marsh, southern coastal saltmarsh, mulefat scrub, and southern willow scrub that provides habitat for migratory and resident nesting birds. The marsh is owned by the City of Long Beach, and although Signal Hill Petroleum has an access agreement that provides them the ability to access their wells and facilities onsite, there is generally no public access allowed in this location without prior consent by the City of Long Beach due to public safety concerns related to active oil extraction operations onsite.

Fed by nutrient rich runoff and subject to periodic flooding, emergent vegetation consisting of dense mixed stands of broadleaf cattail (*Typha latifolia*), southern cat-tail (*T*ypha *domingensis*), Chairmaker's bulrush (*Schoeneplectus americanus)*, and California bulrush (*Schoenoplectus californicus)*, with limited patches of salt marsh bulrush (*Schoenoplectus robustus)*, grow very rapidly in Marketplace Marsh. The dense stands of vegetation inhibit water circulation resulting in large areas of stagnant water that becomes a breeding ground for mosquitos that can carry viruses and other diseases and presents a public health and safety risk. In addition, the overgrowth of vegetation reduces the health of the marsh by decreasing open water habitat important to native wildlife such as invertebrates, fish, and water birds. There are two main goals for this project that will be accomplished with vegetation thinning and restoring the waterflow: 1) discouraging mosquito breeding and 2) restoring the overall health of the marsh.

Moreover, mosquitos in Marketplace Marsh have recently tested positive for West Nile virus. Abatement of the mosquito population at the marsh is managed by the Los Angeles County Vector Control District (Vector Control). Due to the dense marsh vegetation, Vector Control can only access limited areas of the marsh. The City believes that without the proposed vegetation clearance, Vector Control will not be able to adequately abate the mosquito population. The proposed removal of vegetation will greatly improve natural water circulation in the marsh that in turn disrupts the mosquito life cycle by decreasing the success of larval hatching as well as increasing natural predation of mosquito larvae.

Vector Control uses insecticides that are highly specific to mosquito larvae and are not expected to result in significant adverse impacts to flora, fauna, or water quality. One potential impact of larvicide use is the removal of mosquito larvae as a source of food for native fish and bird predators. In this case, the larvicide is necessary to abate the mosquito population at the refuge but will not have an adverse impact to non-target species, including vegetation, non-mosquito invertebrates, amphibians, fish, birds, and mammals.

The applicant is proposing to apply herbicide to the emergent vegetation root structures following hand-cutting and removal of the bulk of the vegetation because the applicants'

experience in managing the marsh has demonstrated that when cut, the vegetation grows back within one month without herbicide application. To minimize the need for similar projects in the future, the applicant is proposing to use Clearcast™ (imazamox) or Habitat™ (imazapyr), which are approved by the Environmental Protection Agency (EPA) and California Environmental Protection Agency (CalEPA) for aquatic use to prevent re-growth of the vegetation and have the lowest toxicity to invertebrates and fish of any of the herbicides approved for use in aquatic environments.

The vegetation removal in the marsh will significantly improve the marsh ecosystem by improving water circulation that will inhibit mosquito reproduction and facilitate natural predation of mosquito larvae. This will likely reduce the need for Vector Control insecticide application at the marsh in the future. In addition, the vegetation thinning will improve the health of the marsh by increasing open water habitat important to native wildlife such as invertebrates, fish, and water birds. Because the project has the primary goal of improving water circulation and habitat restoration, the long-term environmental benefits of the project are expected to far outweigh the temporary short-term effects of the restoration work.

This project was originally scheduled for the December 2020 hearing, but was postponed due to the lack of a posting notice onsite. After the publication of the staff report dated November 24, 2020, staff received several emails from the Sierra Club Los Cerritos Wetlands Task Force raising concerns regarding the amount of vegetation proposed to be removed, insufficient Native American consultation associated with the proposed tule removal, the five-year term of the permit, lack of a water quality management plan for the site, and the applicant's proposed use of imazapyr. Alternatively, project opponents suggested using an alternative organic herbicide called Avenger™, which contains the active ingredient d-limonene (citrus oil).

Opponents of the project contend that the amount of vegetation proposed to be removed is excessive, and that it would leave very little remaining habitat for birds, fish, and insects which use the tule. As discussed in further detail below in Section C. Marine Resources and Environmentally Sensitive Habitat Area, the amount of existing emergent vegetation in the marsh is excessive due to the nutrient rich runoff entering the marsh, which is impeding the marsh ecosystem by reducing water circulation. The applicant is proposing to strategically remove 30% of the tule, allowing 70% of the vegetation to remain intact, which has been designed to leave several islands of vegetation to remain for the benefit of nesting waterbirds to safely rest without risk of predation by coyotes or other resident predators. Furthermore, Commission ecologist Dr. Jonna Engel finds that the proposed development in the Marketplace Marsh ESHA is ecological restoration that incorporates an Integrated Pest Management (IPM) approach that will improve the overall ecology of Marketplace Marsh while also reducing the ability of mosquitos to reproduce. The development would also enable Vector Control, if needed, to access the marsh and apply the least amount of pesticide necessary to address the mosquito population. Moreover, allowing herbicide to be utilized will help the applicant to maintain the 30% reduction of vegetation in the marsh, which will reduce the need for the applicant to enter into the marsh to manually remove

vegetation on an annual basis which is highly disruptive to wildlife. Finally, the recommended five-year term of the permit will allow the City more flexibility to manage the site with continuity when and if additional tule growth impedes water flow.

As addressed in further detail below, the herbicides proposed are approved for use in water by both the EPA and the state of California, provided it is applied exactly per the label instructions. Imazapyr is one of the three least toxic herbicides approved for use in water regarding non-plant taxa such as invertebrates, amphibians, reptiles, and birds. Furthermore, Avenger™ is not certified for use in California for use in water and is extremely toxic to native species because it acidifies the water and soil, desiccates plants, and kills invertebrates and vertebrates. Commission staff called Dr. Krista Hoffman, CDFW biologist who works with herbicides on December 7, 2020 to determine if the organic herbicide could be used as an alternative, and she confirmed that it is not certified for use in water because it is very acidic and therefore toxic to organisms when used in water.

With regard to Native American consultation, Commission staff did not originally initiate government to government consultation with Native American tribes because the vegetation removal did not involve soils disturbance, would not have any impact to archaeological deposits, and would not change the status of the land as a registered sacred land. However, staff did call and email tribal representatives regarding the project. Commission staff reached out to Ms. Joyce Stanfield Perry of the Juaneño Band of Mission Indians, Acjachemen Nation, and did not receive a response. Staff also reached out to Anthony Morales, Chairperson of the Gabrieleño/Tongva San Gabriel Band of Mission Indians, who expressed concerns about the use of an herbicide in the wetland. Chairman Morales expressed a preference that an organic alternative be utilized, but did not provide written objection to the project. The applicant also reached out to Mr. Matt Teutimez, who works with Chairman Andrew Salas of the Gabrieleño Band of Mission Indians, Kizh Nation. Mr. Teutimez toured the project site with the applicant and is in support of the project and the benefits of the restoration. Lastly, Commission staff spoke with Rebecca Robles of the Acjachemen Nation, who also expressed concerns with the use of herbicides in the wetland, and would prefer removal of plant materials by hand. None of the tribal representatives suggested that cultural resources might be disturbed by the project, and none will be providing written comment letters.

On December 8, 2020, Commission staff initiated formal government to government consultation with Native American Tribes in accordance with the Commission's Tribal Consultation Policy. There was one request for a consultation, and on December 14, 2020 Staff consulted with Chairman Andrew Salas and Mr. Matt Teutimez of the Kizh Nation. Chairman Salas and Mr. Teutimez expressed their support for the project because Tule is traditionally managed through cutting, and expressed an interest in potentially utilizing the harvested tule after vegetation removal. As of the date of publication of this staff report, Commission staff has not received a response from staff's formal notification of proposed development from any of the other interested tribal representatives.

Project opponents also contend that since the project site is included in Coastal Development Permit No. 9-18-0395, the applicant should have provided a Water Quality Management Plan pursuant to Special Condition 16 of the Los Cerritos Wetlands Restoration and Oil Consolidation Project. However, that project is still in the condition compliance phase of permit issuance and has not yet been issued. Furthermore, that CDP is not the standard of review for this application. As explained below in Section B. of the staff report, the standard of review for this area is Chapter 3 of the Coastal Act, with the City's SEADIP and SEASP plans and policies used as guidance.

Coastal Commission staff is recommending approval of the permit with six special conditions to ensure that the project preserves and enhances coastal resources. **Special Condition 1** regulates the permit term. **Special Condition 2** ensures that the timing of operations and maintenance. **Special Condition 3** ensures the applicant assumes the risk of working in a potentially hazardous environment. **Special Condition 4** requires the applicant to provide other resource agency approvals. **Special Conditions 5** requires the applicant to provide a biological monitor during vegetation removal and maintenance to protect sensitive species and to abide by a construction schedule to avoid impacting habitat during nesting season. **Special Condition 6** requires the applicant to submit a final vegetation monitoring and management plan. Finally, **Special Condition 7** requires the applicant to allow the Gabrielino Band of Mission Indians – Kizh Nation to have the first right to refuse the harvested tule. If tribal representatives choose to not accept harvested tule, the tule shall be properly disposed. As conditioned, the project is consistent with Chapter 3 of the Coastal Act.

The proposed project is located in an area where the Commission has retained coastal development permit jurisdiction, even though the City of Long Beach has a certified Local Coastal Program (LCP). The City of Long Beach LCP was effectively certified on July 22, 1980, and Marketplace Marsh lies within an area depicted on the City's post-certification map as an area of "deferred certification". In October of 2020, the Commission approved LCP Amendment LCP-5-LOB-19-0008-1 with suggested modifications that adopted the Southeast Area Specific Plan (SEASP) that includes Marketplace Marsh, that amends multiple components of the City of Long Beach certified LCP, including the uncertified area where Marketplace Marsh is located. Since the City has not yet taken final action on the Commission approved LCP Amendment, the standard of review for the proposed project is the Chapter Three policies of the Coastal Act. In addition, the policies of the certified City of Long Beach LCP and LCP Amendment LCP-5-LOB-19-0008-1 serve as guidance. As conditioned, the proposed project is consistent with all applicable Chapter Three policies of the Coastal Act.

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EXHIBITS

I. MOTION AND RESOLUTION

Motion:

I move that the Commission approve Coastal Development Permit 5-20-0017 pursuant to the staff recommendation.

Staff Recommendation of Approval:

Staff recommends a **YES** vote on the foregoing motion. 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 Commissioners present.

Resolution to Approve the Permit:

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

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 of interpretation of any condition will be resolved by the Executive Director or the Commission.

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

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

III. SPECIAL CONDITIONS

1. **Permit Term.** This coastal development permit authorizes development on a temporary basis only. The development is authorized for a period of five (5) years, commencing upon the date of Commission approval of Coastal Development Permit No. 5-20-0017, after which time the authorization for continuation and/or retention of any development approved as part of this permit shall cease. After the authorization for the development expires, any vegetation removal within the project area will require the issuance of a new coastal development permit or an amendment to this coastal development permit. Any future applications for annual vegetation management shall be planned in coordination with tribal governments of the Gabrieleno and Juaneno Nations in order to include tribal use protocols and natural land management methods to the extent feasible. If the applicant does not obtain a coastal development permit or amendment from the California Coastal Commission to continue the annual vegetation management program at Marketplace Marsh prior to the date that authorization for the development expires, the City shall cease all vegetation removal activities. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions. Any deviation from the approved project plans must be submitted for review by the Executive Director to determine whether an amendment to this coastal development permit is required.

2. **Timing, Operations and Maintenance Responsibilities.** It shall be the applicant's responsibility to ensure that the following occurs during all project operations:

   A. No vegetation removal within the marsh shall occur during the period from February 1st through September 1st, unless authorized by the Executive Director for good cause.
   B. Removal of dislodged floating vegetation and revegetation activities shall be allowed year-round.
   C. Permanent stockpiling of material shall not be allowed. Stockpile sites must be cleared and returned to their pre-construction condition with no remaining equipment, debris, waste, or construction equipment remaining onsite within one week of the end of vegetation and/or silt removal
   D. Construction materials, debris, or waste shall be located as far from the marsh on the designated site as feasible and in no event shall materials be stockpiled

less than 30 feet in distance from the top edge of marsh, or where it may be subject to erosion and dispersion.

E. Temporary erosion control measures and BMPs shall be implemented for all stockpiled material. These temporary erosion control measures shall be required at the site prior to or concurrent with vegetation/silt removal operations and shall be monitored and maintained until all stockpiled fill has been removed from the project site. Successful implementation of erosion control measures will ensure that the material is completely stabilized and held on site.

F. No equipment shall be stored in the project area, including designated staging and/or stockpile areas, except during active project operations.

G. Construction equipment shall not be cleaned adjacent to the marsh or in the parking lots.

H. The EPA and California registered herbicide (Clearcast™ (imazamox) or Habitat™ (imazapyr)) and adjuvants (Hasten-EA™, Agri-Dex™, or Competitor™) shall be applied in complete conformance to the label instructions for the intended use.

3. Assumption of Risk, Waiver of Liability and Indemnity. By acceptance of this permit, the applicant, the California Department of Fish and Wildlife, acknowledges and agrees (i) that the site may be subject to hazards from accumulation of methane; (ii) to assume the risks to the applicant, the California Department of Fish and Wildlife, 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.

4. Required Agency Permits and Approvals. Prior to vegetation removal activities, the applicant shall submit, for the review and approval of the Executive Director, all necessary State and/or Federal permits that may be necessary for all aspects of the proposed project (including U.S. Army Corps of Engineers, California Regional Water Quality Control Board, California Department of Fish and Game, and U.S. Fish and Wildlife Service) or evidence that no such approvals are required.

5. Sensitive Species Surveys and Construction Monitoring

For any restoration and application of pesticides and herbicides activities, the applicant shall retain the services of a qualified biologist or environmental resources specialist (hereinafter, "biologist") to conduct sensitive species surveys (including nesting birds) and monitor project operations associated with all vegetation removal activities. At least 30 calendar days prior to commencement of any vegetation or sediment removal activities, the applicant shall submit the name and qualifications

of the biologist, for the review and approval of the Executive Director. The applicant shall have the biologist ensure that all project construction and operation are carried out consistent with the following:

A. The biologist shall be present during all construction activities including desilting and vegetation removal activities within the project area. The biologist shall require the applicant to cease work should any breach in permit compliance occur, or if any unforeseen sensitive habitat or species issues arise. If significant impacts or damage occurs to sensitive habitats or to wildlife species, the applicant shall be required to submit a revised or supplemental program to adequately mitigate such impacts. The revised, or supplemental, program shall be submitted to the Executive Director, for review and approval.

B. Should the Executive Director authorize any construction activities during bird nesting season (February 1st through September 1st), the biologist shall conduct nesting bird surveys 7 calendar days prior to the listed activities to detect any active nests within and near the project site. Follow-up surveys must be conducted on a weekly basis throughout the nesting season or until the project is completed, whichever comes first. If an active nest is detected within the work area, no work shall occur within 300 feet of a song bird nest or within 500 feet of a raptor or owl nest. If construction activities are necessary within these buffer distances, the biologist shall insure that construction noise levels do not exceed 65 dB at the respective nest sites and that nesting birds do not exhibit disturbed behavior. If either happens not work within the buffer zone shall be allowed. Sound blocking measures (e.g. sound blankets, etc.) may be employed to reduce construction noise.

C. If an active nest of a federally or state-listed threatened or endangered species, bird species of special concern, or any species of raptor or wading bird (herons and egrets) is found, the applicant shall notify the appropriate State and Federal agencies within 24 hours, and shall develop an appropriate action specific to each incident. The applicant shall notify the California Coastal Commission in writing by facsimile or e-mail within 24 hours and consult with the Commission regarding determinations of State and Federal agencies.

6. **Final Vegetation Management and Monitoring Program.** PRIOR TO COMMENCEMENT OF VEGETATION REMOVAL ATIVITIES, the applicant shall submit a Vegetation Management Plan for Marketplace Marsh for the review and approval of the Executive Director. This plan shall include a baseline assessment of site conditions prior to vegetation removal and herbicide application. The applicant shall submit an annual report for the remaining five years of the permit term no later than December of each year documenting the subject marsh vegetation maintenance activities including photographs of the physical and ecological condition of the project site. The annual report shall include but not be limited to the following:

1. Description of the goals and objectives of Marketplace Marsh vegetation management including the target percent cover reduction of emergent vegetation, creation of open water to promote mosquito deterring wave action, increase open water for wildlife, and facilitate natural predation of mosquitoes, and reduction of the amount of herbicide and insecticide required each year.
2. Baseline condition of marsh vegetation cover (absolute percent cover) prior to any vegetation removal and herbicide application each year.
3. Description of type of vegetation removal activities (machete, clippers, electric cutters, etc.) and type, application method, and amount of herbicide used each year.
4. Summary of mosquito abatement activities, if any, each year, including documentation of diseased mosquitos and the measures taken by Los Angeles County Vector Control to eliminate them.
5. Documentation of marsh conditions before and after vegetation management activities in the form of photographs and maps.
6. Collate and provide an update on the status of wildlife use of the marsh including the numbers and species of terrestrial and water birds and other native animals from sources such as the Los Angeles Audubon and other interested non-profit groups.

7. **Coordination with Native American Tribes.** Five days prior to tule removal, the applicant shall notify Chairman Andrew Salas of the Gabrielino Band of Mission Indians – Kizh Nation that such vegetation removal will take place. The Gabrieleno Band of Mission Indians – Kizh Nation shall have the first right to refuse the harvested tule. If the Kizh Nation choose to not accept harvested tule, it shall be offered to other Native American tribal representatives on the NAHC contact list, and if not accepted the tule shall be properly disposed.

IV. FINDINGS AND DECLARATIONS

A. Project Location and Description

Location and Site History

The City of Long Beach is proposing to remove approximately 1.4 acres (60,000 sq. ft.) of native and non-native vegetation within the 6.5-acre Marketplace Marsh, followed by periodic maintenance removal of native and non-native overgrowth for a period of five years for mosquito abatement and habitat restoration **(Exhibit 2)**. The purpose of the vegetation removal is to 1) increase the fetch length or horizontal distance over which wave-generating winds blow to allow greater water circulation to discourage mosquito reproduction; 2) create accessibility for Vector Control to apply insecticides with minimal disturbance to wildlife; and 3) preserve “islands” of vegetation surrounded by open

water which will provide microhabitat that protects nesting birds from predation from other resident animals.

As stated, Marketplace Marsh is fed with freshwater input from surface runoff via drains and surface flows from the adjacent Marketplace shopping center (**Exhibit 1**). High levels of nutrient rich fertilizers enter the Marsh, and since it is subject to periodic flooding, the emergent vegetation grows very rapidly, filling in the open water areas of the marsh (**Exhibit 6)**. The excessive growth of marsh vegetation decreases the amount of open water areas that are important to a healthy and functioning marsh ecosystem. For instance, an excessive amount of marsh vegetation can impede water circulation leading to stagnant water that facilitates mosquito reproduction. It also decreases open water habitat important to native wildlife such as invertebrates, fish, and water birds. Vegetation overgrowth has led to community health concerns, expressed by both the Long Beach Department of Health and Human Services and Los Angeles County Vector Control District. Extensive overgrowth of emergent vegetation reduces water circulation in the marsh and creates large pockets of stagnant water, which provide ideal breeding conditions for mosquitos, which have presently been confirmed to carry West Nile Virus. Since dense stands of emergent vegetation restrict the ability to treat mosquito larvae, the Los Angeles County Vector Control District has ordered the City of Long Beach to reduce the amount of emergent vegetation within Marketplace Marsh (**Exhibit 4**).

Due to the dense vegetation, Vector Control (the entity that manages the abatement of mosquitos) has had limited access to the area and has recently been unable to adequately abate the mosquito population at the marsh. Removal of some of the vegetation in the marsh will allow increased access for natural predation to occur by mosquito fish (*Gambusia* sp.) if present, or other insects, and reduce locations known to harbor mosquito larvae, such as floating vegetation, and provide Vector Control increased access for application of mosquito insecticide if necessary.

According to Vector Control, the type of insecticide used in the marsh will vary depending on the developmental stages of the mosquitos present. When treating mosquito larvae from 1st to early 4th instar[1], which is their usual and customary treatment, they use a larvicide in granular or liquid form of Bti (*Bacillus thuringiensis israelensis*) and Bs (*Bacillus sphaericus*).[2] Larvicides modify the growth

[1] An instar is a phase between two periods of molting in the development of an insect larva (such as a mosquito) or other invertebrate animal.

[2] The granular form goes by the trade name Vectomax FG, and if treatment requires a liquid formulation, Vector Control will combine Vectorbac 12AS (Bti) and Vectolex WDG (Bs). When larvae reach late 4th instar or the pupae stage insecticidal oil is the only effective treatment. They use either CocoBear by Clarke or Masterline Kontrol Mosquito Larvicide. When flying adult mosquito control is required, and depending on the mosquito species, they will use either Zenivex (Etofenprox) or materials based on organophosphates or pyrethrin/pyrethroids. Zenivex is preferred as it contains no PBO synergist and is effective on Culex mosquitoes. However, Zenivex is not effective to treat Aedes genes mosquitoes, which were recently introduced to the region.

state and prevent mosquitos from maturing past the larval stage, thus preventing breeding. These larvicides are highly specific to mosquito larvae and are not expected to result in any adverse impacts to flora, fauna, or water quality. The larvicides are derived from bacterial parasites of larval mosquitoes' digestive system and control mosquitoes during the immature larval state. Larvicides modify the growth stage and prevent mosquitoes from maturing past the larval stage, thus preventing breeding. One of the only potential adverse impacts that these larvicides may have on an ecosystem is the removal of mosquito larvae as food for predators. In this case, the larvicides are necessary to abate the mosquito population at the marsh and will not likely have any adverse impacts to non-target species, including birds or other insects and invertebrates.

The best method of controlling mosquitos is by facilitating natural predation by other insects such as water boatman (*corixidae*) and backswimmers (***notonectidae***), or by mosquitofish[3], which can be accomplished with proper vegetation management as is being proposed. According to LA County Vector Control, the proposed vegetation management will reduce the amount of emergent vegetation and create open water promoting mosquito deterring wave action, increase the amount of open water for wildlife, allow for natural predation to assist in the control of the mosquitoes, and reduce the amount of necessary insecticide by as much as 80 pounds a month. Unfortunately, the current density of cattail, bullrush and over-abundance of old matted reeds restricts natural predation and requires insecticide applications at maximum label rates to obtain any effectiveness. If the vegetation is not successfully reduced, Los Angeles County Vector Control may issue an abatement order to the City. An overabundance of emergent vegetation reduces Vector Controls capacity to utilize target specific larvicides, which ultimately requires them to use more adulticides (insecticides targeted at adult mosquitos) that are not target specific. Therefore, the proposed vegetation clearance that results in the need for less chemicals is the preferred method.

The Commission recently authorized a waiver of permit requirements for vegetation removal activities for a five-year term in Marketplace Marsh to facilitate better water circulation to reduce mosquito breeding areas and improve habitat for migratory and resident bird populations (Coastal Development Permit No. 5-17-0824-W). No herbicide was proposed by the City in that permit application. In 2018, following the last hand-clearing of cattail and bulrush, these species rapidly grew back, causing Vector Control to take a vegetation cutting machine through the marsh in 2019 to allow for the distribution of anti-mosquito bait needed to secure public health. Because vegetation clearing is labor intensive and costly and the vegetation grows back rapidly, the applicant contends that hand-clearing is not feasible on an annual basis. Thus, the applicant is proposing the added step of utilizing either of two herbicides, Clearcast™ (imazamox) or Habitat™ (imazapyr), to kill the plants and thus best prevent subsequent

[3] LA County Vector Control District stocks mosquitofish in Marketplace Marsh, but the numbers of mosquitofish currently present depends on how many have survived bird predation to date.

re-growth of the vegetation after hand-cutting, and a five-year maintenance plan to sustain the required mix of open water and emergent vegetation necessary to deter mosquito proliferation. Both of these herbicides are approved by the Environmental Protection Agency (EPA) and California Environmental Protection Agency (CalEPA) for aquatic use[4] and have the lowest toxicity to invertebrates and fish of the array of herbicides approved for use in aquatic environments[5]. The applicant will also mix one of the following three adjuvants[6], Hasten-EA™, Agri-Dex™, or Competitor™ [7], which are oil concentrate surfactants, to the either Clearcast™ or Habitat™, to improve the absorbing and sticking properties of the respective herbicide.

The vegetation removal activities at Marketplace Marsh would be implemented as follows: 1) initial actions in the first year would include removal of approximately 60,000 sq. ft. of excessive emergent marsh vegetation utilizing hand tools. Herbicide will then be applied to the remaining root structure of the cut vegetation to kill the plants and prevent re-growth to maintain adequate open water habitat, improve water circulation, and allow access for vector control operations; 2) maintain areas of vegetation removal, as needed, during years two through five outside of bird nesting season—thus minimizing the disturbance to nesting birds and impacts on aquatic species; and 3) remove floating emergent vegetation as it dislodges from rooted locations on an as-needed basis during years one through five.

The applicant proposes to use hand tools (e.g. machete or weedwhacker) to cut the vegetation and remove the exposed surface biomass in the proposed vegetation removal areas. A small crane truck located along the service road that runs along the bank of the western portion of the marsh will be used to remove bundles of cut vegetation (**Exhibit 3**). Approximately two weeks after the surface biomass of the vegetation has been removed, the remaining vegetation roots and rhizomes will be treated with herbicide to kill the plants.

B. Standard of Review

The City of Long Beach LCP was effectively certified on July 22, 1980, and Marketplace Marsh lies within an area depicted on the City's post-certification map as an area of "deferred certification". Recently, the Commission approved an LCP Amendment in October 2020 (LCP-5-LOB-19-0008-1) with suggested modifications that adopted the Southeast Area Specific Plan (SEASP) that includes Marketplace Marsh. SEASP contains both Land Use Plan (LUP) and Implementation Plan (IP) policies that guide

[4] The EPA registration number for Clearcast™ (imazamox) is 241-437-67690and the California registration number is CA 241- 437-AA- 67690. The EPA registration number for Habitat™ (imazapyr) is 241-426-67690, and the California registration number is 241-426-AA- 67690.
[5] USEPA ECOTOX Database (https://cfpub.epa.gov/ecotox/)
[6] An adjuvant is any substance in a herbicide formulation or added to the spray tank to improve herbicidal activity or application characteristics.

[7] The California registration numbers for Hasten-EA™, Agri-Dex™, and Competitor™, are CA 2935-50202, CA 5905-50094-AA, and CA 2935-50173, respectively.

new development in the specific plan area that includes the Marketplace Marsh property. However, the City has not yet adopted the Commission's suggested modifications to the LCPA, so therefore the standard of review is Chapter 3 of the Coastal Act, although the City's certified LCP and LCP Amendment LCP-5-LOB-19-0008-1 are advisory in nature and may provide guidance.

C. Marine Resources and Environmentally Sensitive Habitat Area

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 30240 states:

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such 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 such areas, and shall be compatible with the continuance of such habitat areas.

Section 30107.5 of the Coastal Act, defines an environmentally sensitive area 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.

Although Chapter 3 of the Coastal Act is the standard of review for this project, policies equivalent to Section 30230, 30231, 30233 and 30240 of the Coastal Act are included in the Long Beach LCP. Furthermore, the following additional policy recently approved by this Commission as a part of SEASP (LCP-5-LOB-19-0008-1) specifically addresses the use of insecticides and herbicides. Section 5.6: Development Standards, Wetlands Proximity to Sensitive Coastal Habitat Areas Policy 5.32 states (emphasis added):

> E. The use of insecticides, herbicides, anti-coagulant rodenticides or any toxic chemical substance that has the potential to significantly degrade biological resources shall be prohibited, **except where necessary to protect or enhance the habitat itself, such as for eradication of invasive plant species or habitat restoration, and where there are no feasible alternatives that would result in fewer adverse effects to the habitat value of the site.** Application of such chemical substances shall not take place during the winter season or when rain is predicted within a week of application. Herbicide application necessary to prevent regrowth of highly-invasive exotic vegetation such as giant reed/cane (*Arundo donax*) shall be restricted to the best available and least-toxic product and method in order to minimize adverse impacts to wildlife and the potential for introduction of herbicide into the aquatic environment or onto adjacent non-targeted vegetation. In no instance shall herbicide application occur if wind speeds on site are greater than five miles per hour or 48 hours prior to predicted rain. In the event that rain does occur, herbicide application shall not resume again until 72 hours after rain.

In addition, Policy 5.4 of SEASP adds several areas as Local Sensitive Habitat Areas, and includes number 10, that addresses Marketplace Marsh:

> "In 2012, this site was found to have approximately 21.8 acres of potential jurisdictional waters of the United States with aquatic features and degraded vegetated wetlands in the form of southern brackish marsh, southern coastal saltmarsh, mulefat scrub, and southern willow scrub. Southern tarplant, a CNPS Rare Plant, was also mapped on this site. In 2018, southern tarplant along with habitat areas that may meet ESHA criteria, including black willow, pickleweed mats, and saltgrass flats, were found on this site. Saltgrass flats provide habitat for the saltmarsh wandering skipper, a State Species of Special Concern. Runoff from Marketplace Center maintains this freshwater wetland."

Marine Resources

Section 30231 requires that the biological productivity and quality of coastal waters be Maintained, maintain optimum populations of marine organisms, and benefit and protect of human health. Section 30230 requires that uses of the marine environment be carried out in a manner that will sustain the biological productivity of coastal waters for long-term commercial, recreational, scientific, and educational purposes.

The proposed project is vegetation removal utilizing hand tools and herbicide for mosquito abatement and habitat restoration. As discussed previously, uncontrolled

mosquito populations can threaten human health and the stagnant marsh does not provide optimal habitat for marine organisms. While the project has been designed and conditioned to avoid permanent impacts to sensitive species in the wetland, the project proposes to remove approximately 30% of the emergent vegetation in the project area to restore better water circulation in the marsh that will improve the marsh habitat. Therefore, temporary impacts are unavoidable, but the project as designed and conditioned will result in a much higher functioning marsh ecosystem with improved water circulation.

As stated, according to the LA County Vector Control, the proposed vegetation management plan will create more open water promoting mosquito deterring wave action, increase open water for wildlife, allow for natural predation to assist in the control of the mosquitoes, and reduce the amount of insecticide applied to the marsh by as much as 80 pounds a month. In addition, more open water with islands of vegetation will improve the success rate for nesting birds that are currently predated upon by resident animals that can access the nests. More islands of vegetation surrounded by open water will deter such predators from accessing nesting birds. Robb Hamilton, the biologist who conducted the biological survey for the marsh, stated that:

> "Opening up additional open water, intermixed with dense stands of emergent vegetation that will remain, is expected to establish habitat conditions suitable to a wider variety of native bird species than currently occurs at Marketplace Marsh. So long as subsequent spraying of emergent vegetation in the specified areas is conducted using approved methods and herbicides labeled for use in wetland situations, no potentially significant adverse effects are identified."

With regard to the applicant's use of herbicides, Commission staff researched the suitability of the proposed herbicide in marsh habitat in California, consulted with the California Department of Pesticide Regulation (CDPR), reviewed the label instructions and has determined that Clearcast™ (imazamox) or Habitat™ (imazapyr) are the least toxic herbicides certified and registered for use in aquatic habitats in California and are appropriate for the use proposed at Marketplace Marsh.

The proposed vegetation removal activities include measures to minimize the effect that these activities will have upon the marine environment. **Special Condition 2** requires the applicant to adhere to Best Management Practices related to vegetation removal using herbicides, and to follow all Cal EPA and EPA approved guidelines and label instructions indicated with their use. Therefore, Commission staff finds that the proposed development, as conditioned, conforms with Sections 30230 and 30231 of the Coastal Act and the City's LCP regarding the protection of water quality and to promote biological productivity of coastal waters and to protect human health

Wetlands

Section 30233 of the Coastal Act states that diking, filling, and dredging of coastal waters and wetlands may be permitted for restoration purposes. The proposed project is

to remove emergent vegetation from a brackish marsh, which is considered a wetland. The bulk of the vegetation will be cut, and the remaining root structure will be treated with herbicide, therefore the soil that the subject vegetation is emerging from will not be disturbed. Thus, the proposed method of vegetation removal and herbicide application are not considered diking, filling, or dredging of a wetland. The proposed project will not impact the sediment of the marsh. Therefore, Section 30233 does not apply.

Environmentally Sensitive Habitat within the Project Area

Pursuant to subsection 30240(a) of the Coastal Act, development in environmentally sensitive habitat areas (ESHA) is limited to uses that are dependent on the resource such as low impact camping, trails, and restoration and must protect against any significant disruption of habitat values. Under section 30240(b), development that occurs adjacent to ESHA must be sited and designed to prevent impacts which would significantly degrade those areas, and must be compatible with the continuance of those habitat areas.

1. ESHA in the Project Area

The proposed vegetation removal activities will occur within the Marketplace Marsh, a 6.5-acre brackish marsh being overrun by excessive vegetative growth within the larger Los Cerritos Wetlands complex that supports aquatic features and degraded wetlands in the form of southern brackish marsh, southern coastal saltmarsh, mulefat scrub, and southern willow scrub. Marketplace Marsh is an environmentally sensitive habitat area that provides habitat for many native animals including hundreds of bird species and numerous special status faunal species.

The emergent vegetation consists of dense mixed stands of Broadleaf Cattail (*Typha latifolia*), southern cattail (*T*ypha *domingensis*), Chairmaker's bulrush (*Schoeneplectus americanus)*, and California bulrush (*Schoenoplectus californicus)*, with limited patches of salt marsh bulrush (*Schoenoplectus robustus).* Open areas between vegetation thickets are covered in American water fern (*Azolla filiculoides*) during the wet season and remain unvegetated during the dry season. Limited stands of black willow (*Salix gooddingii*) and red willow (*Salix laevigata*), occur, as does the non-native, invasive salt cedar (*Tamarisk ramosissima*).

According to the *Marketplace Biological Report*, conducted by Hamilton Biological, Inc., dated May 14, 2020, special status wildlife species known or expected to be present in this type of emergent vegetation would include several California species of special concern including the least bittern (*Ixobrychus exilis*), Clark's marsh wren (*Cistothorus palustris clarkae*), and tricolored blackbird (*Agelaius tricolor*). Sora (*Porzana carolina)* and Virgina rail (*Rallus limicola)* also occupy vegetated areas of the marsh The other special-status species known to be present is southern tarplant (*Centromadia parryi* ssp. *australis*), a California Native Plant Society (CNPS) Rare Plant found along the periphery of the project area, along the east side of Marketplace Marsh, and the wandering skipper (*Panoquina errans*), a butterfly species which is not expected to be

impacted by the project, but may occur in salt grass (*Distichlis spicata*), which is present around the margins of Marketplace Marsh.

The Coastal Act defines environmentally sensitive habitat area as 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. According to the survey, the marsh contains plant and animal species (as listed above) which are rare and easily disturbed or threatened by impacts to the marsh and wetlands. Commission staff ecologist, Dr. Jonna Engel reviewed the biological survey report, google aerials and site photographs, and determined that Marketplace Marsh is ESHA based on the rarity of coastal freshwater marsh habitats and the number of sensitive species that the marsh supports. Additionally, the City of Long Beach LCP identifies the Marketplace Marsh and surrounding Los Cerritos Wetlands as ESHA. Therefore, the majority of the project site, consisting of 6.5 acres of brackish marsh, is ESHA and the project must comply with Section 30240 of the Coastal Act. As discussed below, the project is consistent with Section 30240 with respect to both development in and adjacent to ESHA.

2. Application to this Project

As stated above, under section 30240(a), development that occurs in designated ESHA must satisfy two tests: 1) it must be for the use that is dependent on the resource, and 2) it must protect against any significant disruption of habitat values. Under section 30240(b), development that occurs adjacent to ESHA must be sited and designed to prevent impacts which would significantly degrade those areas and must be compatible with the continuance of those habitat areas. As discussed above, the proposed vegetation removal will occur both within and adjacent to ESHA, and must comply with the habitat protection requirements of Section 30240.

An important purpose of the proposed marsh vegetation removal is to restore marsh ecosystem services and functions that naturally limit mosquito populations. Restoration is one of the few limited resource dependent uses allowed in ESHA. While the proposed project will have temporary impacts to the vegetation, it is ultimately a habitat restoration project that, once completed, will contribute to the increased productivity of the habitat. Without the proposed project, an overabundance of emergent vegetation will continue to proliferate, further reducing water circulation, continuing to degrade the wetland and increasing mosquito numbers and endangering public health and safety. Further, without the vegetation removal, LA County Vector Control may need to utilize more non-specific mosquito insecticides that may be ultimately harmful to the flora and fauna in the habitat, and further, may need to take action and issue an order removing the vegetation without the benefit of a coastal development permit. The removal of vegetation to improve water circulation and allow mosquito populations to be more holistically controlled through natural predation aids in restoration of the marsh ecosystem.

The project has been designed to protect against any significant degradation of the wetland ecosystem. All populations of southern tarplant are located outside of the limits of disturbance of the proposed project as shown on **Exhibit 5**. To ensure that potential impacts to the sensitive species that may utilize this area are avoided, all work is conditioned to occur outside of bird nesting season. The marsh and surrounding habitat have the potential to provide nesting and foraging resources for sensitive bird species. To avoid impacting sensitive species during construction, the Commission imposes **Special Conditions 2 and 5** to require that the project is monitored for potential impacts to biological resources and that work occurs outside of nesting season.

In addition, the project has been conditioned to submit all necessary State and/or Federal permits that may be necessary for all aspects of the proposed project from other resource agencies, or evidence that no such approvals are required, which is addressed in **Special Condition 4.**

If the vegetation maintenance plan fails to meet the performance standard of 30% less emergent vegetation as specified in the vegetation management plan which contributes to degradation of the water circulation in the marsh, **Special Condition 6** requires the applicant to submit an annual monitoring report every year for five (5) years from the date of the approval or the CDP. If the report concludes that the vegetation is not being maintained in conformance with the vegetation management program approved pursuant to this permit, the applicant shall submit a revised or supplemental restoration plan for the review and approval of the Executive Director. Accordingly, the Commission finds that the proposed project, as conditioned, is consistent with 30240 of the Coastal Act.

D. Cultural and Archaeological Resources

Section 30244 of the Coastal Act states:

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

Coastal Act Section 30244 states that reasonable mitigation measures shall be required where development would adversely impact archaeological resources. These resources may include sacred lands, traditional cultural places and resources, and archaeological sites. The first component of an analysis under section 30244 is to determine what, if any, archeological (including tribal and cultural resources) or paleontological resources exist in the project vicinity that could be adversely affected by the proposed development.

Tule grass was used by the Native American tribes to create water vessels, mats to place on top of their homes, and to create baskets. Much of the wetland areas between Long Beach and Seal Beach are located in between the prehistoric villages of Puvungna and Motuucheyngna and the project area is considered by these tribal

members to be part of the larger cultural landscape of Puvungna and the surrounding villages, which contains ceremonial areas and sacred sites. This subject was detailed in CDP 9-18-0395.

The site is believed to contain archeological resources because many tribal resources had been recorded in the larger vicinity, although no specific known resources are present on the project site. Although the site is believed to contain archeological resources, the proposed project itself will not have an impact on the resources. The proposed project does not involve any ground disturbance, excavation or grading. While the site is considered a sacred land and may be part of a Traditional Cultural Property or Tribal Cultural Landscape much broader than individual archeological deposits, the features of the site that make the land sacred, such as its surrounding topography, the water onsite, and the sensitive plant and animal species, are not threatened by the proposed project. Tule was and is a plant material frequently used by the Native American Tribes in the area, and removal of 30% of the tule grass still leaves a significant portion of Tule to provide habitat to sensitive animal species, still comprises a significant part of the landscape, and is still available for use for tribal purposes.

On December 8, 2020, Commission staff initiated government to government consultation with Native American Tribes in accordance with the Commission's Tribal Consultation Policy. Chairman Andrew Salas and Mr. Matt Teutimez of the Gabrieleno Band of Mission Indians – Kizh Nation requested a formal government to government consultation, which took place with Commission staff on December 14, 2020. Chairman Salas and Mr. Teutimez expressed their support for the project because Tule is traditionally managed by humans through cutting and expressed an interest in potentially utilizing the harvested tule after it is removed from the marsh. They indicated that because this plant species was traditionally cut and used as a resource, cutting the Tule does not negatively impact the plant or the sacred nature of the area. In terms of application of the herbicide, a Kizh Nation tribal representative serves as a Tribal council member for Cal EPA and understands that herbicide is needed at this time, however in the future, the Kizh Nation may support alternative or organic herbicides that are safe for water use if they are available. The applicant took the Kizh Nation tribal representatives on a tour of the site. The Nation is comfortable with this use of a water-safe herbicide in this location because it is an isolated water body and they understand that the proposed herbicide breaks down in water in a matter of days.

As of the date of publication of this staff report, Commission staff has not received a response from any other interested tribal representatives in response to staff's formal notification of proposed development, however several other tribal governments were contacted by phone and email and some expressed concern with application of the herbicide from an ecological and land management standpoint. None of the tribal representatives indicated that the proposed project would have a negative impact to the status of the land as a sacred area.

Although the removal of Tule grass itself was not a concern to the tribal members, to ensure the harvested tule is offered to tribal members for cultural uses prior to disposal,

Special Condition 7 guarantees the Gabrieleno Band of Mission Indians -- Kizh Nation the right of first refusal to the harvested tule. If they do not accept, it should be offered to other tribal governments for use. Lastly, because the project site is considered a sacred land, **Special Condition 1** requires that any future proposals for vegetation management be planned in collaboration with tribal governments.

The proposed project will not have a permanent impact to the landscape and does not involve destruction of the sacred land, nor does it disturb any archeological deposits that may be onsite. Because the proposed project does not have any tangible impacts, there is no mitigation required pursuant to Section 30244. Therefore, the proposed project is consistent with Section 30244 and no conditions for mitigation or monitoring of the site are required.

E. Local Coastal Program

The City of Long Beach LCP was effectively certified on July 22, 1980, and Marketplace Marsh lies within an area depicted on the City's post-certification map as an area of "deferred certification". Recently, the Commission approved an LCP Amendment in October 2020 (LCP-5-LOB-19-0008-1) with suggested modifications that adopted the Southeast Area Specific Plan (SEASP) that includes Marketplace Marsh. SEASP contains both Land Use Plan (LUP) and Implementation Plan (IP) policies that guide new development in the specific plan area that includes the Marketplace Marsh property.

F. California Environmental Quality Act

Section 13096(a) of the Commission's administrative regulations requires Commission approval of coastal development permit applications to be supported by a finding showing the application, 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 which the activity may have on the environment.

The City of Long Beach is the lead agency for the purposes of CEQA review. On December 19, 2019 the City determined the project to be Categorically Exempt from CEQA requirements. In addition, the proposed project has been conditioned to be found consistent with the Coastal Act. As conditioned to minimize risks associated with public access, 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 the identified impacts, is the least environmentally damaging feasible alternative and can be found consistent with the requirements of the Coastal Act to conform to CEQA.