# CALIFORNIA COASTAL COMMISSION

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# W15a&b

A-6-SAN-20-0029 & 6-20-0356 (City of San Diego MWMP)

May 12, 2021

## **EXHIBITS**

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**EXHIBIT 1:** Vicinity Maps

EXHIBIT 2: Dr. Koteen Bio Memo







#### CALIFORNIA COASTAL COMMISSION

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## MEMORANDUM

TO: Alexander Llerandi, Coastal Program Analyst

FROM: Laurie Koteen, Ph.D., Senior Ecologist

RE: Policy and Science Behind MWMP Mitigation Recommendation

DATE: April 23, 2020

#### **Documents Reviewed:**

- Dudek, Final Environmental Impact Report for the municipal Waterways Maintenance Plan, San Diego, CA, Prepared for: The City of San Diego Planning Department, Environment and Mobility Planning Division, March 2020.
- Environmental Science Associates, El Cuervo Del Sur Phase I Wetland Creation Site Monitoring: Year 2
  Annual Compensatory mitigation Monitoring Report, Prepared for City of San Diego, Storm
  Water Division, March 2020.
- Helix Environmental Planning Inc., and Environmental Science Associates, *El Cuervo del Sur Phase II*Conceptual Mitigation and Monitoring Plan, Prepared for the City of San Diego Transportation and Storm Water Department, July 2020.
- Helix Environmental Planning, Hollister Quarry Mitigation Site: Conceptual Aquatic Resources Habitat Mitigation and Monitoring Plan, Prepared for: City of San Diego, June 12, 2018.
- Jarque, Anne and Joshi Vipul, Memorandum to: Alex Llerandi, *Supplemental Information Municipal Waterways Maintenance Plan,* Coastal Development Permit 6-20-0356 and Appeal A-6-SAN-20-0029, February 1, 2021.
- Koteen, Laurie, Memo to Alexander Llerandi, *Analysis of suitability of mitigation options for Mission Bay Drive 1 channel clearance,* December 17, 2020.

San Diego Municipal Code, Land Development Code, Biology Guidelines, last amended February 1, 2018.

I have been asked to evaluate the suitability of various mitigation options put forth as compensation for clearance of several storm channels in the city of San Diego as part of a larg



Municipal Waterways Maintenance Plan, or MWMP. The open storm channels at issue have become clogged with sediment over the course of several years and colonized by vegetation to the extent that the locations now support functional habitat of various types, (**Figure 1**). Therefore, clearance of these channels represents wetland and riparian habitat loss, requiring mitigation under the Coastal Act for those portions of the storm channel system located within the Coastal Zone. In all, the storm channel clearance will impact several habitat types, including freshwater marsh, riparian woodland, wetland classified as "disturbed", and "natural flood channels".

Here, I describe the policy guiding mitigation in the coastal zone for the city of San Diego and the background for the mitigation package recommendation for the MWMP. The mitigation package for this MWMP differs in with regard to requirements for habitat creation from the mitigation package recommended by staff and approved by the Commission for an earlier municipal maintenance permit, or MMP, as well as for a recent CDP. The approach recommended here is consistent with the intent of the San Diego Land Development Code, and with the Commission's typical approach to wetland and ESHA mitigation across the state.

# **Mitigation Sites for Coastal Zone MWMP Segments**

The sites proposed to provide compensatory mitigation for the work performed through the MWMP<sup>1</sup> have all been reviewed and approved through earlier Commission actions. For the Industrial channel 0.04 acres of mitigation for impacts to freshwater marsh are required at a ratio of 4:1, and 0.06 acres for impacts to riparian scrub at a ratio of 3:1. For the Dunhill channel, 0.12 acres of mitigation are required for impacts to freshwater marsh and 0.32 acres for impacts to disturbed wetlands; both at a ratio of 4:1. These impacts will be mitigated at El Cuervo del Sur Phase II/Los Peñasquitos Phase II site. This site is in the north of the city in the Los Peñasquitos Lagoon watershed (CDP No. 6-20-0433), which was approved this past January in conjunction with approval for clearance of the Mission Bay Drive storm water channel, (Figures 2 & 3). The El Cuervo Phase II site has been approved for 1.65 acres of wetland creation along the floodplain of Peñasquitos Creek and sits just slightly northeast of the El Cuervo Phase I mitigation site. The Los Peñasquitos site provides opportunities for 2.44 acres of riparian enhancement, consisting primarily of invasive species removal and native plant establishment, also within the Los Peñasquitos Preserve. To date, 0.44 acres of the El Cuervo Phase II mitigation have been allotted to compensate for clearance of the Mission Bay Drive at a ratio of 1:1, leaving an additional 1.21 acres available for wetland creation. An additional 1.32 acres of enhancement mitigation were also set aside for the Mission Bay Drive clearance from the 2.44 acres available at the Los Peñasquitos enhancement location, representing a ratio of 3:1 mitigation for the 0.44 acres of impacts.

The other site where mitigation has been approved is at the Hollister Quarry site along the Otay River in southern San Diego within the Otay River watershed (CDP No. 6-18-0688), (Figures 4 & 5). Impacts to the Valeta and Tocayo channels will be mitigated here. The Valeta channel requires 0.04

<sup>1</sup> Note on the standard of review: The Commission is considering two permits with one set of standard and special conditions. CDP No. 6-20-0356 is evaluated for consistency with Chapter 3 policies of the Coastal Act. CDP No. A-6-SAN-20-0029 is evaluated for consistency with the City of San Diego's certified LCP, and where applicable, the public access policies of Chapter 3 of the Coastal Act.

mitigation acres for impacts to freshwater marsh and 0.15 for impacts to riparian scrub. The Tocayo channel requires 0.15 acres of mitigation for impacts to riparian scrub. This site was originally approved to provide mitigation opportunities for the Nestor Creek storm channel clearance, and supports wetland and transitional riparian scrub. Remaining available credit for wetland creation at the site totals 0.7 acres. An additional 1.17 acres are also available for riparian substantial restoration.

I visited both mitigation sites; the El Cuervo/Los Peñasquitos site in October of 2020and the Hollister Quarry site in 2018.. Both sites provide good opportunities for wetland and riparian mitigation. The El Cuervo Phase II creation site is hydrologically connected to groundwater for portions of every year. Due to the success of the adjacent mitigation, El Cuervo Phase I, which is similarly situated with respect to groundwater elevation, success can also be expected at the El Cuervo Phase II site. El Cuervo Phase I supports a mix of habitat types, including herbaceous wetland, riparian scrub, and transitional riparian habitat. El Cuervo Phase II will support a similar mix, with planned habitats including herbaceous wetland, riparian scrub, (i.e. southern willow scrub and mule fat scrub), and riparian woodland.

The Hollister Quarry site is also a well-chosen location for mitigation. Large scale invasion by the giant reed, *Arundo donax*, which can densely colonize riparian habitat has caused the accumulation of sediment within the Otay River and altered its flow patterns and morphology. Removal of this densely colonizing invader and additional grading will restore this area's natural flow. This mitigation represents creation where grading creates riparian, stream-influenced habitat where it did not previously exist, and substantial restoration, which is seen by the Commission as tantamount to creation as a mitigation option. Maintenance of the site following the initial mitigation actions will ensure that this site remains functional and *Arundo* free in years to come.

### Mitigation through habitat creation for storm channel vegetation clearance

Commission staff recommend compensatory mitigation ratios as multipliers of the habitat that has been impacted for permanent impacts. Temporary impacts are self-mitigating if the habitat impacted is returned to a similar state with regard to age class of vegetation and ecosystem function within the space of a year. The basis for these ratios is twofold: considerations of temporal loss of the impacted resources between the time of impact (when the resources are lost) and the timing of mitigation completion and bet hedging in case of creation/ restoration failure. This policy has its basis in sound ecological principles. Temporal loss of habitat means that vital resources are compromised for a period time, in the case of temporary impacts, or wholly unavailable to the species that require them when habitat is permanently impacted. This can mean that wildlife species are temporarily or permanently extirpated from a habitat, for example, and that the local carrying capacity for one or many species is reduced over the time period that the habitat is impacted.

The mitigation ratios are not 1:1 because restoring ecosystem structure and function through creation or significant restoration activities is difficult to achieve and requires time. Many ecosystem functions (e.g. nutrient cycling, resistance to invasion, filtering of pollutants, soil development, carbon storage...) require considerable time to establish, depending on the type of habitat that is created or restored. This represents another component of temporal loss; the loss of ecosystem functions over the period of habitat recovery following restoration or enhancement activities. Moreover, there is no

guarantee of restoration success if mitigation projects fail to reach their objectives and to achieve additional functional benefits not readily measured through standard success criteria. For these reasons as well, mitigation is sought preferentially in the form of creation or significant restoration at a ratio of 4:1 for wetland impacts and at 3:1 for impacts to riparian ESHA for permanent impacts

For the MWMP we are recommending 4:1 creation for wetland project impacts, 3:1 for riparian impacts, and 2:1 for natural flow channels to ensure consistency with mitigation practices required for other projects. Consistency across the state in applying mitigation ratios is beneficial for many reasons. First and foremost, this policy provides the greatest chance of truly mitigating for the lost resources. It also leads to compensatory practices that are fair and appropriate given the strong public interest in coastal resource protection. From a regulatory standpoint, consistency in mitigation practices also means that our policies are known and unsurprising for all applicants seeking approval for development in the coastal zone. Further, standard mitigation practices are essential for Commission staff. Having a known and established policy reduces the workload for staff in that it reduces the need to negotiate a unique mitigation package for every project in which impacts are incurred. It also reduces the level of strife in negotiations between staff and project applicants, and ensures predictability for all throughout the process.

With the benefits of consistency in mitigation practices established, it is also true that the Coastal Commission has departed from the established mitigation ratios in select circumstances. These departures include the prior authorization of the storm channel MMP in 2012, and the January 2021 CDP for clearance of the Mission Bay Drive storm channel. Although the policy is adhered to whenever possible, we do depart from these ratios on a case by case basis. This generally occurs when there is sufficient evidence that the standard ratios are infeasible, or when there is an alternative proposal that would achieve an equal or ecologically superior outcome.

Agreements with the city around the prior MMP were made in 2012 after much deliberation and direction from the Commission. At that time, the Commission was satisfied to allow the city to proceed with the minimum requirements of the Land Development Code, which states:

"...enhancement of existing wetlands may be considered as partial mitigation only, for any balance of the remaining mitigation requirement after restoration or creation if wetland acreage is provided at a minimum of a 1:1 ratio."

The agreed upon mitigation package at that time was set at 1:1 creation for habitat impacts with the balance achieved through enhancement. In the case of the recent Mission Bay Drive storm channel clearance, 1:1 creation was again accepted, with the remaining 3:1 requirement fulfilled through riparian enhancement for wetland impacts. Further, the mitigation was allowed to occur in a different watershed from the storm water channel impacts. Staff's rationale at the time was that the circumstance warranted a rapid agreement with the city because clearance of the Mission Bay Drive storm channel needed to occur on an urgent basis. City staff feared that if the storm channel were not cleared before the current rainy season got underway that widespread flooding would occur. At the time of permitting, other in-watershed mitigation was not available. These circumstances were seen by

Commission staff as sufficient justification for departing from our standard requirement of 4:1 creation for wetland impacts. However, now that the urgency for storm channel clearance is reduced, and because we are entering in an agreement with the city for a MWMP of five to ten years duration, Commission staff recommends ocreation or significant restoration at a 4:1 mitigation ratio for impacts to wetland habitat and 3:1 mitigation ratio for impacts to riparian habitat.

The mitigation package that staff recommends incorporatesmitigation practices in that it allows for all of the mitigation to occur in the same watershed as the impacts that are incurred, or within an adjacent watershed. Further, the wetland and riparian mitigation that will occur is "in-kind" with the impacts, and is therefore more truly compensatory to the habitat that is impacted.

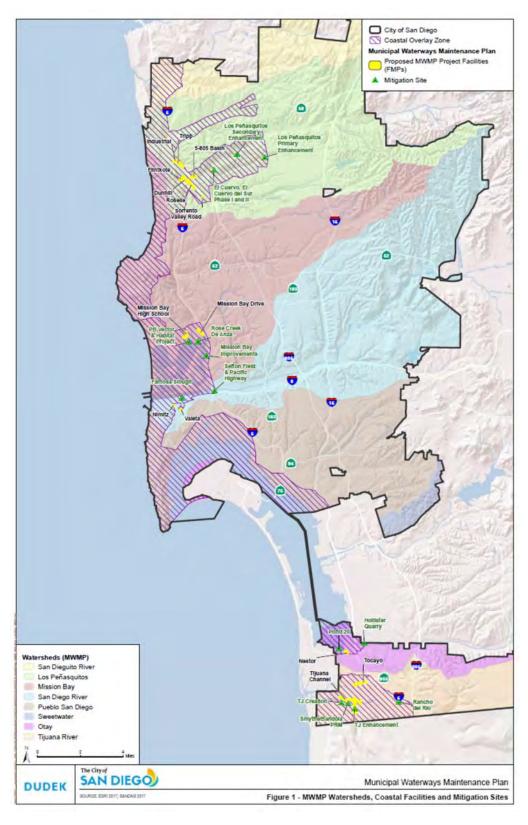


Figure 1: Location of storm channels to be cleared through current MWMP. (Storm channels appear in yellow in the figure).



Figure 2: Location of Los Peñasquitos Mitigation Sites

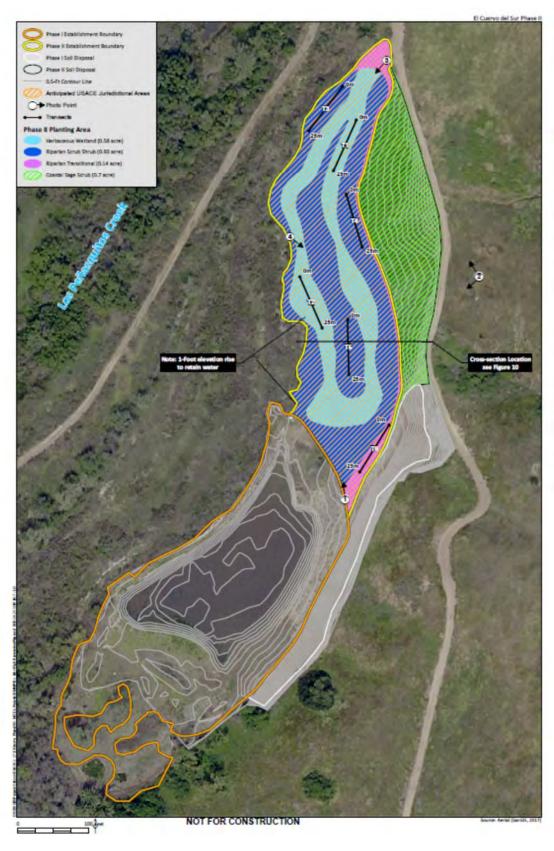


Figure 3: El Cuervo I (orange outline) and El Cuervo II (yellow outline) Mitigation Habitat Objectives.



Figure 4: Location of Hollister Quarry Mitigation Site



Figure 5: Planned Hollister Quarry Habitat Mitigation