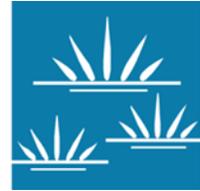


TECHNICAL MEMORANDUM

GLENN LUKOS ASSOCIATES

Regulatory Services



PROJECT NUMBER: 14340002CLAY

TO: Tracy Zinn

FROM: Tony Bomkamp

DATE: July 17, 2021

SUBJECT: Evaluation of Impacts to Riparian Habitat Associated with Changes to Hydrology for Temescal Wash and Coldwater Canyon Creek Associated with the Proposed Temescal Business Park, Corona, Riverside County

The proposed Temescal Business Park proposes to realign Coldwater Canyon Creek to its approximate historic location. The realignment would result in shifting the confluence approximately 1,000 feet upstream from the current discharge location. The realignment will result in potential impacts to riparian habitat within the 1,000 foot segment of Temescal Wash due to increased flows, and potential impacts to Coldwater Canyon Creek downstream of the site due to reduction of flows where an approximately 650-foot segment of Coldwater Canyon Creek, accounting for approximately 0.30 acre would exhibit reduced flows.

TEMESCAL WASH

With the proposed realignment of Coldwater Canyon Creek, the total flow rate within Temescal Wash would be increased for the 1,000-foot reach between the proposed confluence and the existing confluence. This increase in flow also would result in an increase to water surface elevations and velocities. The increase in water surface elevations would range from 0.4 feet to 0.9 feet between the existing confluence location and the existing Dawson Canyon Road Bridge, 0.9 feet to 1.2 feet upstream of the bridge to the proposed confluence location, and transitioning from 0.5-foot increase to 0.0-foot increase upstream of the proposed confluence (with no measurable increase approximately 0.4 mile upstream of the proposed confluence). The increase in velocity would be approximately 0.5 feet per second (fps) in the reach from the existing confluence location to the proposed confluence location.

The area associated with the outfall that would discharge to Temescal Wash from the realigned Coldwater Canyon Creek supports riparian habitat, which extends immediately downstream consisting of black willow forest, mulefat scrub and alluvial scrub [see the attached Exhibit 5 from the application submitted to California Department of Fish and Wildlife]. Below this area, there is are no areas consisting of riparian alliances with a mix of coastal sage scrub species, limited amounts of scalebroom and mulefat. Furthermore, the low-flow channel does not support vegetation. The species adjacent to the low-flow channel are commonly found in alluvial scrub

MEMORANDUM

July 17, 2021

Page 2

that is highly adapted to high energy flows and the increase in velocities by 0.5 feet per second and depths ranging from 0.4 to 0.9 feet would not result in significant impacts to the vegetation.

COLDWATER CANYON CREEK DOWNSTREAM OF PROJECT SITE

Coldwater Canyon Creek was realigned in the late 1960's or early 1970's with the construction of the concrete pipe manufacturing facility that previously occupied the Project site. The path of the creek was shifted from the approximate center of the site to the western edge of the site parallel to Temescal Canyon Road and much of the drainage adjacent to the site has been channelized through the installation of rip rap to maintain the drainage in its current channel. With the realignment, the current channel would be filled during site grading and the drainage would be realigned as depicted on Exhibit 3 from the application submitted to California Department of Fish and Wildlife, which is attached. With the realignment of the channel and filling of the existing drainage, flows that currently continue downstream from the bridge at Dawson Canyon Road, continuing for approximately 650 feet to Temescal Wash. This 650-foot segment, that averages approximately 20 feet in width, would experience reduced discharge.

This segment consists largely of unvegetated channel that supports limited riparian habitat consisting of an approximately 0.04-acre patch of arroyo willow which occurs just above the confluence with Temescal Wash. Thus, the reduced discharge would not result in significant losses to riparian habitat, as it is likely, that the willows are supported by subsurface water and do not specifically depend of surface discharge. Nevertheless, CDFW and the Regional Board would likely consider the reduction in hydrology (as opposed to the increases experienced by Temescal Wash) to be a significant impact to the 650-foot segment of Coldwater Canyon Creek, which would remain untouched by the project. To mitigate for the proposed streambed modifications, the project will mitigate the impacts at a ratio of 1:1 through purchase of credits in the Riverpark Mitigation Bank, which is the same Mitigation Bank that will provide credits for the filling of Coldwater Canyon Creek and for construction of the realigned Coldwater Canyon Creek Outfall. With the proposed mitigation, potentially significant impacts would be reduced to less-than-significant.