

APPENDIX C

CREEK ASSESSMENT

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MEMORANDUM

DATE: March 3, 2019

To: Dawn Merkes, Group 4 Architecture, Research + Planning
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FROM: Bernhard Warzecha, Senior Biologist
 Theresa Wallace, Principal/Project Manager

SUBJECT: Creek Assessment for the San Bruno Recreation and Aquatic Center Project

This memorandum summarizes LSA’s assessment of an unnamed creek and channel within the San Bruno City Park. The surveyed section of this creek includes approximately 1,600 linear feet between the pedestrian bridge located approximately 240 linear feet southeast of Crystal Springs Avenue and the pedestrian bridge located approximately 100 linear feet east of the intersection of City Park Way and Oak Avenue in San Bruno.

Methods

LSA researched various sources to assess hydrological connectivity and the relevant landscape context of the creek. On February 6, 2019, LSA senior biologist and certified wetland delineator Bernhard Warzecha conducted a pedestrian survey of the above-described section of the creek and relevant surrounding areas. A global positioning system unit was used to map relevant features.

Results

Hydrology and General Conditions

The surveyed section of the creek generally consists of a 10- to 12-foot-wide channel formed by concave concrete slabs. The height between the bottom of the concave slabs and the top of the slabs is generally in the range of 1 to 2 feet (depending on the angle of the placement of the concrete slabs). The top of the concrete slabs generally functions as top-of-bank through most of the length of the surveyed section. At several locations where the channel bends, the top-of-bank is located higher, reaching up to 8 feet in height. These steeper banks are also generally lined with concrete. In some locations, scour has occurred next to the concrete slabs. These scoured areas are considered part of the bed and bank. Additionally, where water flows next to the concrete channel (e.g., in the upper portion of the surveyed section), the water restricted by the concrete slabs may have contributed to the formation of a narrow band of potential wetlands along the channel. LSA recommends that a formal wetland delineation following standard methodology be conducted for any work within or in the immediate vicinity of the channel, including any proposed modifications to the existing alignment.

The landscape beyond top-of-bank generally consists of either hardscape or landscaping. Landscaping generally consists of lawn and landscape trees (see Vegetation discussion, below). At the lower reach of the surveyed section, pavement connects City Park Way to a parking lot for the San Bruno City Park. At this location, vehicles access the parking spaces by driving through the creek.

The surveyed section of the creek appears to convey intermittent to ephemeral surface flows. These flows may predominantly originate in the watershed of the westerly slopes of Junipero Serra Park, but they may also include the watershed including easterly slopes of I-280 at this location. Additionally, culvert pipes along the surveyed section and nuisance flow from landscaping/irrigation are expected to contribute to flows of the creek. Surface flows of this creek drain to the San Francisco Bay (Bay).

At the time of the survey, flowing water approximately 2 inches in depth and between 2 and 5 feet in width was observed. However, approximately 3 inches of rain fell during the week before the survey. Therefore, the flow depth observed at the time of the survey is likely to occur only after considerable rainfall. Typically, creeks similar to the surveyed section do not normally convey surface flow outside the wet season. However, surface flows of this creek section do occur frequently and long enough to produce an ordinary high water mark (OHWM) on the concrete slabs that form the creek bed. The OHWM is between 2 and 5 feet wide, with an average width of approximately 3 feet. Additionally, a clear natural OHWM can be observed upstream of the surveyed creek section, where the creek has a naturally occurring earthen bed and bank.

Vegetation

The bed and banks of the surveyed section of the creek generally consist of concrete slabs, which inhibit the growth of vegetation. However, lawn grows directly on the edges of the concrete slabs at many locations. Additionally, canopies of ornamental trees overlap the creek, and therefore function as riparian vegetation as they provide shading, leaf litter input, bank stabilization, and other ecological functions.

The lawn next to the creek appears to be maintained, including regular mowing. At the time of the survey, the lawn was mowed to approximately 3 inches. Lawn plants observed included typical non-native landscape grasses¹ and ruderal forbs, including clover (*Trifolium* sp.), bristly ox-tongue (*Helminthotheca echioides*), broadleaf plantain (*Plantago major*), English ivy (*Hedera helix*), and common daisy (*Bellis perennis*).

Trees lining the creek consist of predominantly typical landscape trees (both native and non-native), including, but not limited to, California sycamore (*Platanus racemosa*), eucalyptus (*Eucalyptus* sp.), pine (*Pinus* sp.) coast redwood (*Sequoia sempervirens*), coast live oak (*Quercus agrifolia*), birch (*Betula* sp.), and magnolia (*Magnolia* sp.). The trees lining the creek are generally of mature heights of their respective species.

¹ Due to the recent mowing, a reliable identification of the grass species of the lawn was not feasible.

Jurisdictional Considerations

Due to the presence of an OHWM and assumed hydrological connection to the Bay, it is LSA's professional opinion that the U.S. Army Corps of Engineers (Corps) and the Regional Water Quality Control Board (Water Board) have jurisdiction over this creek, and that regulations pursuant to Sections 404 and 401 of the Clean Water Act (CWA) and the Clean Water Rule apply. Furthermore, jurisdiction would also extend to the culvert pipes contributing concentrated flow to this creek, and potential wetlands associated with the creek, as described above.

A final determination of jurisdictional extent can only be made by the Corps following a formal aquatic resource delineation report and map. However, preliminary mapping indicates that the area under potential CWA jurisdiction includes approximately 6,800 square feet (0.156 acre). If the proposed project includes filling of this creek or parts of the creek within jurisdictional limits, a Corps permit and Water Board Water Certification would be required.

Additionally, it is LSA's professional opinion that Section 1602 of the California Fish and Game Code is applicable. If the proposed project includes a substantial diversion or obstruction of the natural flow of, or a substantial change or use of any material from the bed, channel, or bank of this creek, a Streambed Alteration Agreement (administered by the California Department of Fish and Wildlife) would be required.