

Appendix M

Floodplain Analysis

Reference: Sywest Flood Evaluation Memorandum

presence of the berm. Accordingly, the modeling and corresponding engineering recommendations are not relying upon the berm to continue to act as a barrier to channel flow from San Jose Creek. Instead, the base flood elevation in the adjacent San Jose Creek channel of 14.4 feet NAVD88 is used for this project.

The existence of the berm around the exterior of the site does however prevent shallow offsite flood water from entering the site. As such, the proposed fill within the site does not change the flooding characteristics in the vicinity.

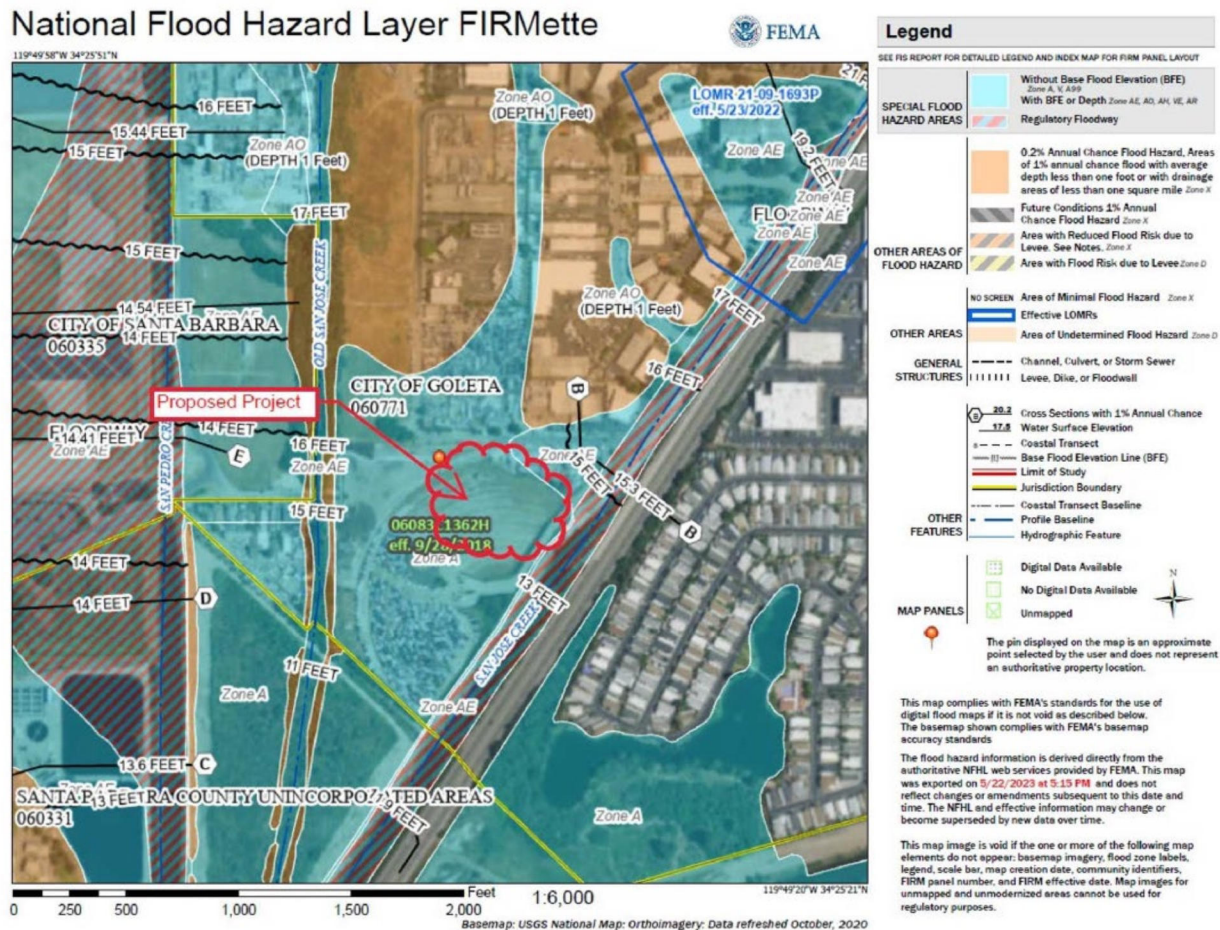


Figure 1 - Site Location and Flood Zones

Reference: Sywest Flood Evaluation Memorandum

Findings

As discussed above, and as analyzed in prior documents:

- The proposed project is located within the FEMA Zone A for which no 100 year water surface elevations are determined. Instead, the 100-year water surface elevation in the adjacent San Jose Creek channel (Elevation 14.5 feet NAVD88) has been used for design purposes.
- The soil fill required for the proposed project will not substantially affect the flooding or drainage of the surrounding parcels because stormwater from the proposed project area does not discharge to the surrounding parcels and water from the surrounding parcels does not discharge to the proposed project area.
- The proposed project will not increase the peak flow rate in San Jose Creek because under the pre-project condition, stormwater runoff is already discharged to San Jose Creek and because the project detains on-site stormwater such that runoff does not exceed the pre-project condition.
- The proposed project storm flow will be biofiltered, meeting City of Goleta requirements for stormwater filtering, prior to discharge to San Jose Creek.
- Moving the storm drain outlet location about 100 feet upstream in San Jose Creek Channel will provide greater energy dissipation and channel protection as well as easier access to the outlet in the case that maintenance is required. These are both beneficial.
- The proposed project area is outside of the Santa Barbara County Tsunami Area as published by the State of California Department of Conservation¹. See Figure 2.

¹<https://www.conservation.ca.gov/cgs/tsunami/maps/santa-barbara>

Figure 2 - Tsunami Hazard Area Map (Yellow Shading)



Reference: Sywest Flood Evaluation Memorandum

Review Authority and Permit Requirements

The City of Goleta's Floodplain Management Ordinance (Title 15, Chapter 15.10²) provides that the City's Director of Public Works is the review and approval authority responsible for the administration, implementation, and enforcement of the provisions of these requirements³.

The project proposes to conform with Title 15 with by importing fill to accomplish a Finish Floor of 2 feet above Base Flood Elevation of 14.4 feet NAVD88 as required by 15.10.160.C.1⁴

Since the applicant is not proposing to change the FEMA mapping and is not 1) changing the flood carrying capacity, 2) altering a watercourse, or 3) raising the Base Flood Elevation, no Letter of Map Revision or Conditional Letter of Map Revision is required. By 15.10.150, B and C⁵

Therefore, the approval of the finish floor elevation, and finding for compliance with Title 15 is limited to the authority of the Public Works Director of the City of Goleta.

The proposed development including the import of fill requires a Development Plan currently in process with the City, along with a subsequent grading permit by the City. Given the import of fill does not affect drainage, there are no other permits triggered by the imported fill.

² https://library.qcode.us/lib/goleta_ca/pub/municipal_code/item/title_15-chapter_15_10?view=all

³ City of Goleta Municipal Code Title 15 Chapter 15.10.140

⁴ New construction, substantial improvement and other proposed new development shall have the lowest floor, including basement, elevated two feet above the base flood elevation (BFE). Nonresidential structures may meet the standards in subsection (C)(3) of this section. Prior to erection of wall framing, the elevation of the lowest floor including basement shall be certified by a registered professional engineer or surveyor, or verified by the floodplain administrator to be properly elevated.

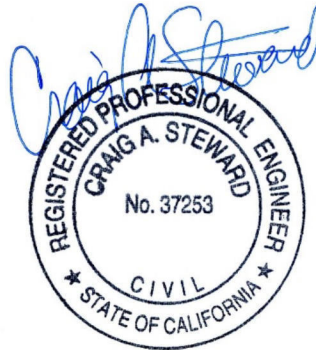
⁵ City of Goleta Municipal Code Title 15 Chapter 15.10.150

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Respectfully yours,

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Attachment 1: Appendix G Questions related to Hydrology and Water Quality

Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Discharge from the site would be limited to wastewater which would be conveyed to the sanitary sewer system, and surface drainage. The existing site consists of impervious surface and surface drainage is collected and sent to existing storm drains which outlet into San Jose Creek. The project drainage design meets the basic requirements of reducing the post-project peak flow rates from the project to less than the pre-project levels. It also provides a 100-year flood and drainage design for on-site facilities.

As shown on the project grading and drainage plans by Stantec dated 4/6/2018. The proposed project includes improvements to stormwater collection and detention including a bioswale which will act to treat stormwater in accordance with the post-construction requirements of the City's MS4 permit and the City-adopted Stormwater Technical Guide for Low Impact Development prepared by the County, prior to discharging it into San Jose Creek. The project would result in over 1 acre of disturbance, thereby triggering compliance with stormwater controls during construction through implementation of a Stormwater Pollution Prevention Plan (SWPPP), including installation of BMPs for erosion and sediment control. In its compliance with existing regulations for stormwater and wastewater, the project is not anticipated to significantly impact surface or groundwater quality.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The existing project site area is generally covered with degraded asphalt with a few scattered buildings. The soils are HSG Type C and groundwater is very high. Type C soil is described as "having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission." As well, the site was historically part of the Goleta Slough, exempting it from retention requirements. Given these attributes, and the project's proposal to reduce impervious surface and comply with MS4 permit and other applicable requirements for stormwater, the project is not anticipated to interfere substantially with groundwater recharge.

Groundwater management is beyond the scope of this memo however we note that the project has obtained a water letter from Goleta Water District indicating services is available to the site.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) result in a substantial erosion or siltation on- or off-site;

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

iv) impede or redirect flood flows?

No, the project would not result in any of the above. The project does not propose to alter the course of a stream or river. As discussed above in the response to question a) the project is required to, and designed to be compliant with current during- and post-construction stormwater requirements and therefore would not result in substantial erosion or siltation. Also as discussed above, the project provides a 100-year flood and drainage design for on-site facilities and meets the basic requirements of reducing the post-project peak flow rates from the project to less than the pre-project levels. Additionally, the project would not affect the rate or amount of surface runoff off-site or impede or redirect flood flows due to the presence of the earthen berm around the perimeter of the site which serves to bypass stormwater around the site.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

The project is within Flood Zone A as currently mapped by FEMA. As discussed above, the project is not expected to result in a risk of release of pollutants due to project inundation because the site is proposed to be elevated as required to 2 feet above Base Flood Elevation. The project is not in a Tsunami area as published by the State of California Department of Conservation¹.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The project is designed to meet applicable requirements for water quality as they relate to construction and development of the site. Groundwater management is beyond the scope of this memo however we note that the project has obtained a letter from Goleta Water confirming service is available.

¹ <https://www.conservation.ca.gov/cgs/tsunami/maps/santa-barbara>