WATER DEPARTMENT
212 Locust Street, Suite C, Santa Cruz, CA 95060 ◆ 831-420-5200

June 28, 2018

NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT

RE: Newell Creek Dam Inlet/Outlet Replacement Project

To Interested Agencies and Persons:

The City of Santa Cruz, as the lead agency, is preparing an Environmental Impact Report (EIR) on the proposed project described herein. Please respond with written comments regarding the scope and the content of the EIR as it may relate to your agency's area of statutory responsibility or your areas of concern or expertise. Your agency may need to use the EIR prepared by our agency when considering your permit or other approval for the project, if any is required. ***Written responses are due within 30 days of the receipt of this Notice, as provided by State law.*** As such, written responses are requested to be received by 5:00 p.m. on Tuesday, July 31, 2018. Contact information is included at the end of this document.

> *****A public scoping meeting/open house will be held on Wednesday, July 18, 2018 from 6:30 – 8:00 p.m. at Santa Cruz Police Department Community Room, 155 Center Street, in Santa Cruz. You or members of your agency or organization are invited to attend to provide comments on the scope and content of environmental information to include in the EIR.*****

This NOP is posted on the City's website at:
http://www.cityofsantacruz.com/government/city-departments/water/online-reports/environmental-documents.

Project Location and Existing Facilities. Newell Creek Dam (NCD), which impounds Loch Lomond Reservoir (Reservoir), is located in unincorporated Santa Cruz County, approximately ten miles north of the City of Santa Cruz and two miles east of the unincorporated community of Ben Lomond (see Figure 1). The dam and Reservoir are located on an approximate 518-acre site owned by the City of Santa Cruz (APN 076-251-24). Access to the dam is provided by Newell Creek Road off of Glen Arbor Road.

Constructed in 1961, NCD is an earth-fill dam approximately 195 feet high with a crest length of about 750 feet. The existing inlet/outlet works consists of: 1) the sloping intake structure and

five 12-inch diameter inlet/outlet gates on the dam face and in the Reservoir as well as the hydraulic system to operate the valves at each inlet; 2) 24-inch to 36-inch inlet/outlet pipeline connecting the intake structure under the dam to the release facilities; and 3) release facilities at the dam toe consisting of the connection to the Newell Creek Pipeline (NCP) and the valves for making emergency and beneficial releases to Newell Creek. Appurtenant structures at the NCD and Reservoir include: the spillway and spillway appurtenances (spillway plunge pool and spillway plunge pool crossing), seepage channel at the toe of the dam, a control house on the crest of the dam, and the NCP. Figure 2 shows key existing facilities at the NCD and Reservoir.

The Reservoir impounded by NCD has a maximum storage capacity of approximately 8,646 acre-feet and is the City of Santa Cruz's only surface water storage facility and a critical component of the City's permitted drinking water system. The existing NCD inlet/outlet works provides for the City's operation of the Reservoir by enabling the City to:

- Deliver surface water diversions from the San Lorenzo River (Felton Diversion) to the Reservoir (via the NCP);
- Convey raw water from storage in the Reservoir to the City's surface water treatment plant (also via the NCP);
- Provide beneficial water releases to downstream Newell Creek; and
- Implement operational and emergency flow releases from the Reservoir.

The City also operates and maintains the Loch Lomond Recreation Area (LLRA), located north of the dam and accessed by local roads. The LLRA provides a range of recreational opportunities including boat rentals, picnicking, fishing, hiking, and natural resources interpretive programming. The LLRA is open during daytime hours between March and mid-October.

The proposed project area consists of the NCD, the southern portion of the Reservoir where the existing and proposed intakes are located, the spillway plunge pool and plunge pool crossing, the existing outlet and seepage channel at the toe of the of the dam, the control house on the crest of the dam, Newell Creek Road and access roads to the toe and crest of the dam, a portion of the Newell Creek Pipeline, a portion of an emergency access (Haul) road along the right bank of the reservoir, the LLRA launch, and areas surrounding the dam and reservoir that would be used for construction staging and/or storage of excavated spoils. See Figure 2.

Background. The existing NCD inlet/outlet works is approaching the end of its useful design life and needs to be replaced due to age and three primary deficiencies: inlet/outlet pipeline deterioration, one inoperable intake of the five existing intakes, and an inoperable 24-inch plug valve at the outlet structure. The inoperable plug valve at the downstream toe of the dam would normally control operational and emergency releases from the Reservoir to Newell Creek, but it is currently stuck in a partially open position.

The California Department of Water Resources Division of Safety of Dams (DSOD) regulates non-federal dams in California such as NCD. In November 2013, because of the condition of the inoperable plug valve, DSOD required the City to provide an interim plan for how the City would meet emergency drawdown requirements while developing long-term infrastructure improvements. In response, the City prepared the NCD Dewatering Plan and submitted a technical memorandum to DSOD in September 2014. In June 2015, DSOD accepted the City's request to operate NCD under the Interim Dewatering Plan under the condition that the City provides a long term strategy to address the inlet/outlet works deficiencies in accordance with DSOD drawdown requirements.

The proposed project is necessary to protect the City's ability to deliver drinking water. Currently, the Reservoir is the only asset which provides drinking water security in the City's water system in the form of water storage for drought protection. Failure of the existing inlet/outlet works would eliminate the ability to provide drinking water during two critical periods: during dry summer months when other sources cannot meet demand and during winter when other water sources are too turbid due to storm runoff. The proposed improvements would further improve the City's overall operational efficiency, improve system performance, and provide for long-term reliable storage for the City's drinking water supply. Additionally, the proposed project is necessary for the City to meet DSOD current requirements for Reservoir drawdown in an emergency.

Project Description. The City of Santa Cruz's proposed project would consist of replacement of the existing aging inlet/outlet works in new locations at the Reservoir and other associated improvements. The proposed project would be comprised of the following primary components:

- A new inlet/outlet structure with three new inlets located within the Reservoir;
- A new outlet structure and valves at the toe of the dam;
- A new ten-foot diameter tunnel containing 48-inch and 10-inch inlet/outlet pipelines through the right (west) dam abutment and under the dam;
- A new control house on the dam crest to house controls for the inlets;
- Replacement of an approximately 2,000-linear-foot section of the NCP between the outlet structure and the first isolation valve;
- Improvements along the dam's access roads to improve access for construction, including a new culvert crossing at the spillway plunge pool; and
- Decommission of the existing inlet/outlet works once the replacement inlet/outlet system is operational.

Figure 3 illustrates the location of the primary new facilities in relation to existing facilities.

The duration of construction would be approximately two years and span two full construction seasons (April through November each year). Construction would utilize a range of heavy equipment with potential periods of 24-hour construction. Nine preliminary sites adjacent to NCD and the Reservoir have been identified as potential construction staging areas as shown on Figure 4. These areas or other areas that may be identified may be cleared, graded, or otherwise improved to be used for storage of construction equipment and materials as well as for storage and/or permanent placement of excavated materials (spoils). On average approximately 10 construction workers are estimated to be working at the project site each day with a maximum of 20 during peak construction periods.

Major construction elements include: grading to create an approximate half-acre construction "platform" at the toe of the dam, excavation of a tunnel under the dam to house the inlet/outlet pipeline, and subsurface dredging and installation of the new intakes in the Reservoir. Dredging within the Reservoir as currently proposed could result in up to 26,000 cubic yards (cy) of dredged material that would remain in the Reservoir. A temporary boat launch facility would be installed near the intake construction area for equipment and materials during construction within the Reservoir. The initial transport of construction barge or materials to create the temporary launch may occur from the existing LLRA. Grading and excavation of the construction platform and tunnel would result in approximately 20,000 cy of spoils that would be permanently placed on site (at identified staging areas) or hauled off site to a suitable user or disposal site. Other construction elements include excavation for installation of the outlet control system and electrical supply, installation of a new culverted spillway plunge pool crossing, other improvements for access such as gate replacements and grading and/or graveling of existing access roads, and replacement of a segment of the NCP using conventional (open cut) trenching with small excavators and loaders.

The proposed project would be constructed independently of the existing inlet/outlet works with minimal disruption to the reservoir and current water delivery operations. The existing instream beneficial release to Newell Creek at the toe of the dam would be maintained via a temporary bypass pipe until the new outlet structure is completed. It would be installed between the existing outlet structure and the spillway pool to provide uninterrupted beneficial flows to Newell Creek during construction. There are no proposed changes to existing operations at the NCD and Reservoir upon completion of the project.

Probable Environmental Effects of the Proposed Project. After completing a preliminary review of the proposed project, as described in Section 15060(d) of the CEQA Guidelines, the City has determined that an EIR should be prepared to assess the potentially significant environmental impacts of this project. Because the preparation of an EIR is clearly required for the proposed project, an Initial Study will not be prepared.

The City has identified the following possible effects of the project as topics for analysis in the EIR. The City will consider the written comments received in response to this Notice of Preparation in determining whether any additional topics should be studied in the Draft EIR.

- *Air Quality and Greenhouse Gas Emissions.* Construction and operational emissions of criteria pollutants and greenhouse gasses will be estimated using the California Emissions Estimator Model (CalEEMod) emissions model and compared to the Monterey Bay Air Resources District emissions-based thresholds to assess potential impacts.
- *Biological Resources.* Potential direct and indirect impacts to aquatic, wetland, riparian, and sensitive habitats, as well as to special-status plant and wildlife species, will be assessed. Potential impacts to forest resources as a result of tree removal will be analyzed in accordance with CEQA checklist questions.
- *Cultural Resources.* Potential impacts to archaeological, historical, tribal, and paleontological cultural resources will be evaluated.
- *Geology and Soils.* Potential impacts related to geologic, seismic, and soils constraints will be assessed based on information provided in project geotechnical studies.
- *Hazards and Hazardous Materials.* Reservoir sediment sampling results will be reviewed to assess potential impacts to aquatic species resulting from disturbed sediments. Regulatory databases will also be reviewed for other potential hazardous concerns and potential threats to the public, including construction workers, will be analyzed. Potential creation of hazards during construction, e.g., use of fuels and potential spills, will be addressed.
- *Hydrology and Water Quality.* Potential impacts due to improvement of the existing crossing at the spillway plunge pool and, if applicable, placement of material within a floodway designated by the Federal Emergency Management Agency (FEMA) will be addressed. Potential impacts to water quality during construction will be addressed.
- *Noise.* Potential construction-period noise impacts to noise-sensitive receivers in the project vicinity will be assessed with modeling based on noise measurements taken at the site and review of construction phases and equipment usage.
- *Transportation/Traffic.* Construction-related vehicle trips will be estimated and temporary construction-related traffic impacts will be reviewed.
- *Other Sections,* The EIR will include additional topics as required by the State CEQA Guidelines including growth inducement, cumulative impacts, and alternatives. The EIR will include a section on energy conservation pursuant to requirements of Appendix F of the State CEQA Guidelines and potential impacts related to solid waste disposal if there is any off-site disposal of excavated materials.

  The EIR will also explain why other effects were determined to not be potentially significant. For example, the facilities are not visible from public viewpoints, and no significant aesthetic impacts are anticipated. As a public infrastructure project, the inlet/outlet replacement would not result in additional service/utility demands related to police or fire protection, schools, parks and recreation, water demand/supply, or wastewater generation.

Contact Information.

Responses to this Notice of Preparation must be received in writing by 5:00 p.m. on **Tuesday, July 31, 2018** and should be sent by hardcopy or email to:

Sarah Easley Perez, Associate Planner
City of Santa Cruz Water Department
212 Locust Street, Suite C
Santa Cruz, CA 95060

Email: seasleyperez@cityofsantacruz.com

If applicable, please include the name and phone number of a contact person at your agency in your response. Ms. Perez can be reached by phone at: 831-420-5327.

Sincerely,

Sarah Easley Perez
Associate Planner

SOURCE: AECOM 2018

FIGURE 1

Project Location

Newell Creek Dam Inlet/Outlet Replacement Project

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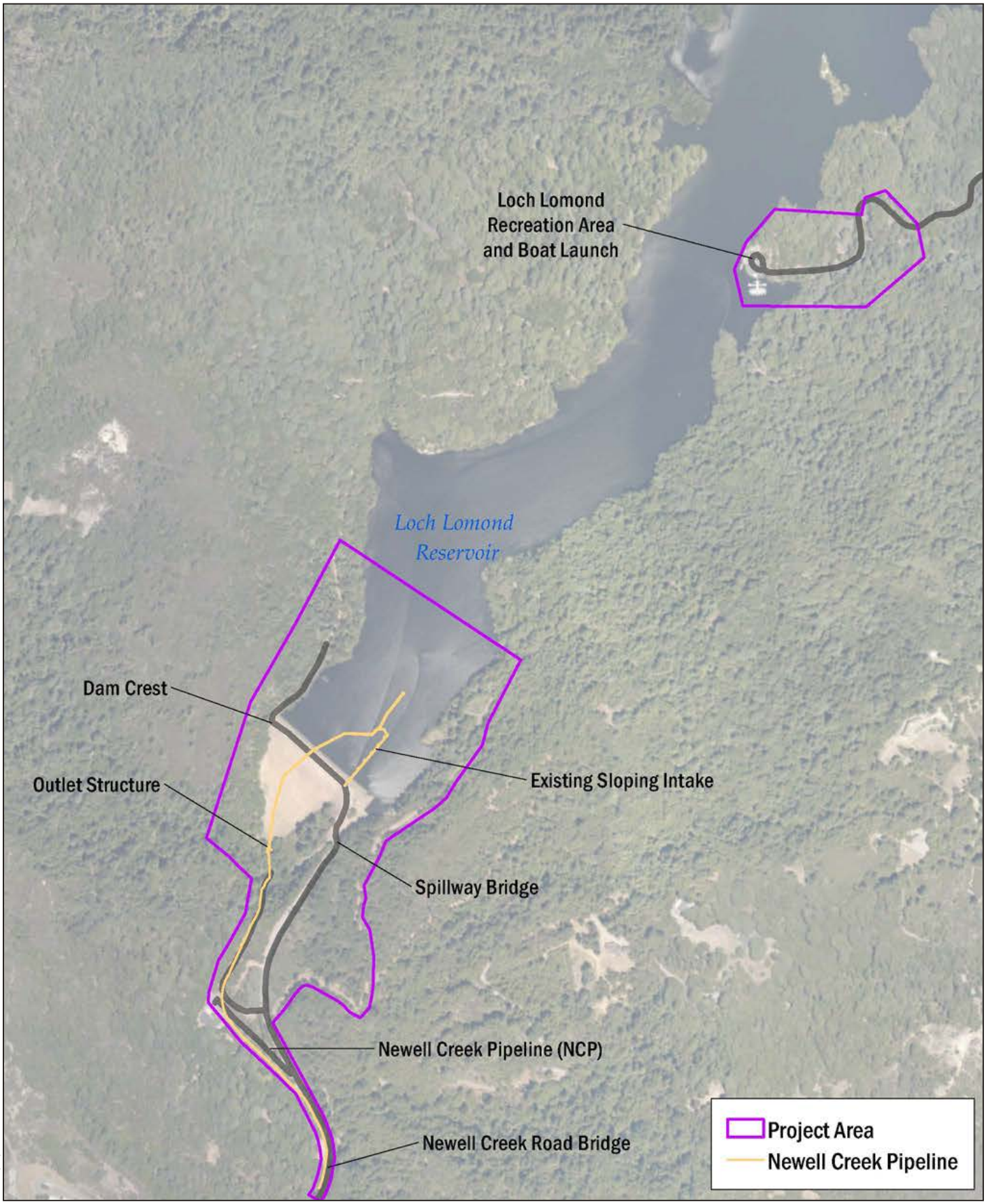

SOURCE: AECOM 2018

FIGURE 2

Existing Facilities

Newell Creek Dam Inlet/Outlet Replacement Project

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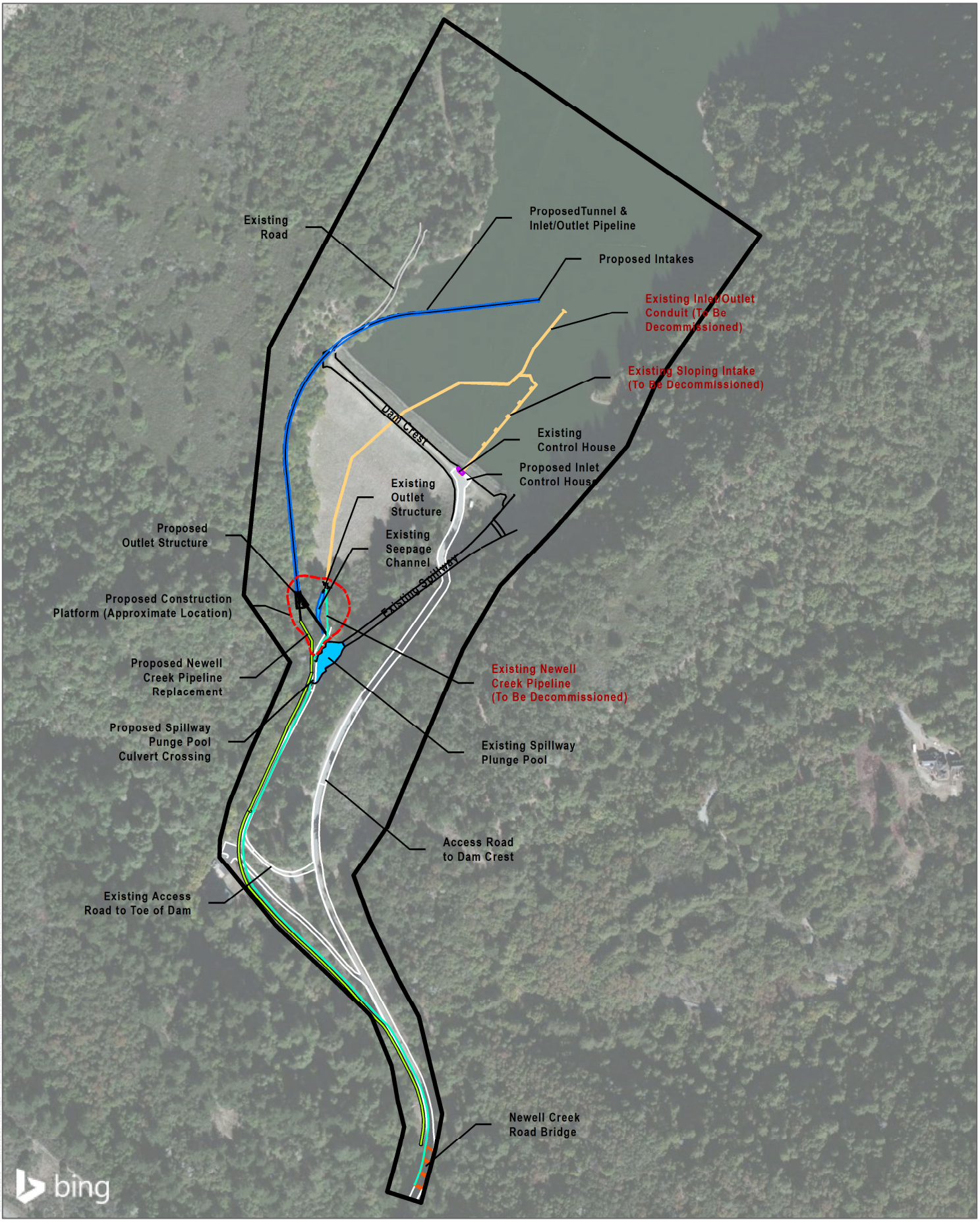

SOURCE: Bing Maps 2018

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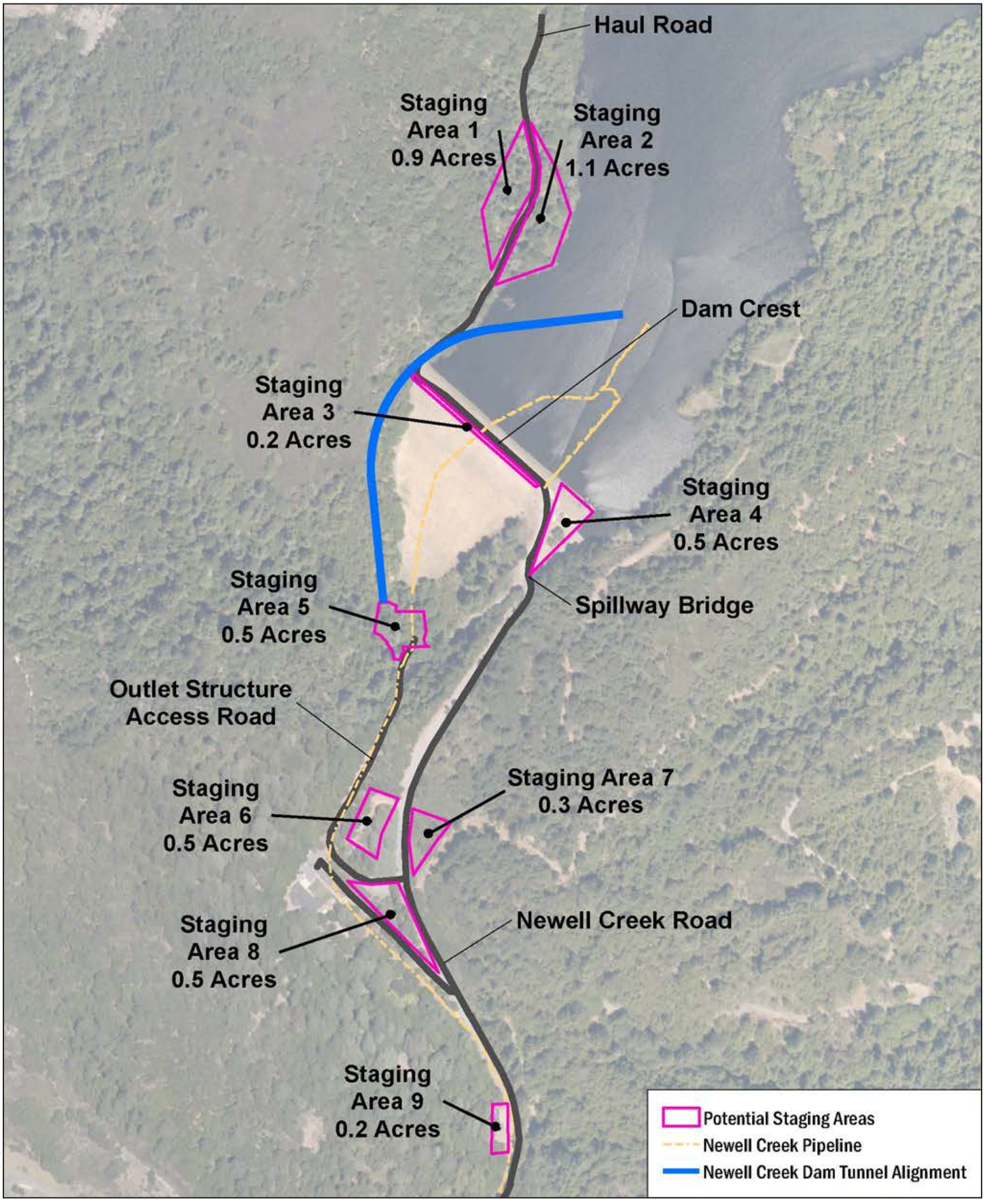
0 225 450 Feet

FIGURE 3

Project Overview

Newell Creek Dam Inlet/Outlet Replacement Project



SOURCE: AECOM 2018

FIGURE 4

Preliminary Staging Areas

Newell Creek Dam Inlet/Outlet Replacement Project

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