

# NOTICE OF PREPARATION OF ENVIRONMENTAL IMPACT REPORT FOR THE SEARSVILLE WATERSHED RESTORATION PROJECT

**February 14, 2023**

Notice is hereby given that the California Department of Water Resources (DWR), as the Lead Agency under the California Environmental Quality Act (CEQA), will prepare an Environmental Impact Report (EIR) for the proposed Searsville Watershed Restoration Project (SWRP or Project) located in San Mateo and Santa Clara counties, California. While the Leland Stanford Junior University (Stanford University or Stanford) is proposing to implement the Project, DWR is the lead agency under CEQA because the proposed Project would require authorization by DWR, through the Division of Safety of Dams. The U.S. Army Corps of Engineers (USACE), San Francisco District is the lead Federal agency under the National Environmental Policy Act (NEPA) because the proposed Project would involve the discharge of dredged or fill material into waters of the United States requiring a Department of the Army permit under section 404 of the Clean Water Act. As such, the document will be prepared as a joint Environmental Impact Statement (EIS)/EIR. Written comments on the Notice of Preparation (NOP) can be submitted anytime during the NOP review period, which begins **February 14, 2023** and ends at 5:00 p.m. on **March 17, 2023**. **Two virtual public scoping meetings will be held via Zoom on Tuesday, February 28, 2023 from 3:00 to 4:30 p.m. at <https://kearnswest.zoom.us/j/82343204260> and 6:00 to 7:30 p.m. at <https://kearnswest.zoom.us/j/89875146206>** to receive comments on the scope and content of the EIS/EIR, as described below. The USACE published a Notice of Intent to prepare an EIS in the Federal Register on February 7, 2023 and will utilize the same scoping meetings for purposes of NEPA compliance.

While this NOP is in English, for translations in other languages or language access requests, please contact [Sabrina.Washington@water.ca.gov](mailto:Sabrina.Washington@water.ca.gov).

The proposed SWRP includes the following major components:

- Modifications to **Searsville Dam** to restore natural hydrologic and sediment flows and enable fish passage and other environmental benefits without increasing downstream flood risks;
- Upgrades to the **San Francisquito Creek Pump Station** (Pump Station) to enable the Searsville Reservoir point of diversion to be relocated downstream to the Pump Station; and
- Replacement of **Felt Dam** with a new, larger dam positioned to enable the capacity of **Felt Reservoir** to be increased so that storage of Searsville non-potable water supplies can be relocated to an expanded Felt Reservoir.

DWR invites each responsible and trustee agency, and each Federal agency involved in approving or funding the proposed Project, to provide input as to the scope and content of the environmental information that is germane to the agency's statutory responsibilities in connection with the proposed Project. DWR also invites comments from Native American tribes and members of the

public on the scope and content of the EIS/EIR, as well as suggested alternatives to the proposed Project that may be considered in the EIS/EIR.

## INTRODUCTION

CEQA specifies that a public agency must prepare an EIR on any discretionary project that it proposes to carry out or approve that may have a significant direct or indirect effect on the physical environment. As indicated above, Stanford University is proposing to implement the Project. Central project components, pertaining to dams and reservoirs, are subject to DWR's Division of Safety of Dams regulation and supervision under the California Water Code and Title 23 of the California Code of Regulations. Pursuant to CEQA Guidelines Section 15063(a), an Initial Study has not been prepared because DWR has determined that an EIR is clearly required to evaluate potential impacts of the proposed Project. As the lead agency, DWR will prepare a project-level EIS/EIR that evaluates the potential significant environmental effects of the proposed Project. The project description, location, and potential environmental effects are summarized further below.

## PROJECT LOCATION

The SWRP is proposed on property owned by Stanford University. The SWRP is situated on the San Francisco Peninsula approximately 35 miles southeast of San Francisco and 20 miles northwest of San Jose. The larger study area for the proposed Project is located in the San Francisquito Creek watershed and spans seven local jurisdictions, including unincorporated areas of Santa Clara and San Mateo counties; the incorporated Cities of Palo Alto, East Palo Alto, and Menlo Park; and the Towns of Portola Valley and Woodside. The proposed Project would be implemented at Searsville Reservoir and Dam, and in Corte Madera and San Francisquito creeks between Searsville Dam and Interstate 280 in unincorporated San Mateo County; Felt Reservoir in unincorporated Santa Clara County; and the Pump Station site, which straddles the Santa Clara/San Mateo County boundary. Refer to **Figure 1** for the location of the proposed Project.

## BACKGROUND INFORMATION

Planning for the proposed Project began in 2011, when Stanford University formed a faculty and staff Steering Committee and Working Group to develop a recommended course of action for the future of the Searsville Dam and Reservoir, taking into account its continued sedimentation, surrounding environmental resources and the San Francisquito Creek watershed. An Advisory Group representing community and resource agency perspectives provided input and recommendations. Key existing facilities associated with the proposed Project are described below.

### **Searsville Reservoir**

Searsville Reservoir is an artificial impoundment built in 1891 on Corte Madera Creek (refer to Figure 1). Searsville Reservoir is a non-potable water source of irrigation supply for functional turf and landscaping at the Stanford campus, and the Stanford Golf Course; stock watering; and fire suppression. The geology of the San Francisquito Creek watershed causes significant natural erosion and turbidity, particularly in Corte Madera Creek, which is located on a shear zone of the

San Andreas Fault. As a result, Searsville Reservoir has been filling with natural sediment. Searsville Dam currently retains an estimated 2.7 million cubic yards of coarse and fine sediment. The reservoir's water storage capacity has been reduced from about 1,200 acre-feet<sup>1</sup> to about 100 acre-feet, and the reservoir is anticipated to eventually fill completely with sediment. The existence of Searsville Dam has also transformed the area upstream of the dam from a confluence valley with mostly free-flowing streams to one with a mix of open water surrounded by floodplain and wetland delta.

## Felt Reservoir

Felt Dam, an earthen embankment dam, was originally built in 1875, expanded in 1889, and replaced in 1929. Felt Reservoir is a potable water storage facility. Water stored in Felt Reservoir is supplied from a diversion structure on Los Trancos Creek, the Pump Station on San Francisquito Creek,<sup>2</sup> and surface water diversions from the Searsville Reservoir. Felt Reservoir also stores stormwater captured through Stanford's campus stormwater collection system. The design capacity of the reservoir is 1,024 acre-feet. In 2020, Stanford conducted a seismic evaluation, which found that although Felt Dam complies with safety requirements based on the California Department of Water Resources, Division of Safety of Dam's *Inspection and Reevaluation Protocols* (2018)<sup>3</sup> for existing dams, when Felt Reservoir is at full capacity, the failure risk for the dam is considered by Stanford to be unacceptably high in comparison to the design requirements for new dams and given Stanford's risk tolerance. Stanford is voluntarily restricting the maximum amount of water that is stored in the existing reservoir to 200 acre-feet.

## San Francisquito Creek Pump Station

The Pump Station is on San Francisquito Creek within the Stanford Golf Course. Water diverted from San Francisquito Creek at the pump station is used to meet direct non-potable system demands or is pumped to Felt Reservoir for storage and later use. The facility is operated in compliance with minimum bypass flow requirements to facilitate fish passage.

## PROJECT DESCRIPTION

The proposed Project involves reestablishing sediment transport processes and fish passage conditions past Searsville Dam, restoring stream and riparian habitats above the dam, removing a substantial amount of sediment trapped behind the dam, relocating the Searsville Reservoir water diversion downstream to the Pump Station, expanding the Pump Station's capacity, and relocating historic non-potable water supply and storage from Searsville Reservoir to an expanded Felt Reservoir and new Felt Dam, to enhance water supply reliability during drought and other emergency conditions and improve public safety. Major components of the proposed Project are summarized below and shown on **Figure 2**.

<sup>1</sup> An acre-foot is a unit of volume equal to the volume of a sheet of water 1 acre (0.405 hectare) in area and 1 foot (30.48 centimeters) in depth. One acre-foot of water equals 325,851 gallons.

<sup>2</sup> Water diverted at the San Francisquito Creek Pump Station either directly serves system demands or is pumped to Felt Reservoir for storage and later use.

<sup>3</sup> As required by the California Water Code, Division 3, Part 1, Chapter 4, Article 2, section 6103.

- **Modifications to Searsville Dam.** Stanford would construct a tunnel through Searsville Dam to flush trapped sediment, restore natural sediment transport, reestablish fish passage conditions past the dam, and otherwise improve ecosystem function. A gate would be installed to control flows through the tunnel during the flushing process. The gate would remain in the closed position until the appropriate hydrologic conditions occur, at which point the gate would be opened to allow sediment trapped behind the dam to flush downstream.<sup>4</sup> Stanford would operate the gate adaptively for up to eight years to flush sediment out of the reservoir, after which it would be fixed in a partially open position to passively attenuate peak flood flows by detaining floodwater in the sediment-evacuated valley area upstream of the dam. The volume of sediment that would be flushed is uncertain because of the design's reliance on natural watershed flows. The target sediment volume to be flushed to attenuate major storm events ranges from a minimum of 900,000 cy up to 1.5 million cy.<sup>5</sup> The minimum volume is the value that is calculated to be needed to provide sufficient capacity to detain floodwaters behind the modified Searsville Dam during peak storm events to prevent an increase in downstream flooding. If monitoring during the initial years of flushing shows that the minimum target sediment volume might not be achieved during the eight-year period, Stanford would take additional steps to enhance flushing (e.g., staging excess sediment near the dam; excavating, testing and dewatering sediment from above the dam and trucking it off site for reuse or disposal).
- **Restoration Design in Tributary Delta Area.** The proposed Project would re-establish a confluence valley, with creeks, riparian areas, and floodplain terraces supporting a variety of habitats between Searsville Dam and the upstream limits of Stanford property. The Corte Madera and Sausal/Alambique Creek channels would be expected to return to a profile similar to that found before construction of Searsville Dam. The restoration effort would be initiated with clearing and grubbing and the excavation of pilot channels to concentrate flows, followed by flushing of accumulated sediments and post-flush grading to bring the upstream reaches to their final configuration. Restoration design goals include providing channels that meet fish passage design criteria, avoiding impacts to areas upstream of Stanford property, managing sediment concentrations for aquatic life health, and avoiding archaeological resources.
- **Downstream Channel Modifications.** Stanford would construct sediment traps, habitat improvements and bank stabilization features at between 30 and 40 locations on Corte Madera and San Francisquito creeks between Searsville Dam and I-280 to reduce deposition of sediment farther downstream, improve natural habitat conditions, and stabilize banks. The sediment traps would store coarse sediment mobilized during flushing while facilitating fish passage conditions after flushing.
- **Fish Passage Conditions.** The design incorporates features to meet regulatory criteria for reestablishing fish passage conditions upstream and downstream of the dam as well as through the tunnel. After sediment flushing, channel improvements would be constructed

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<sup>4</sup> The gate would not be opened until the San Francisquito Creek Joint Powers Authority completes the San Francisquito Creek Flood Protection, Ecosystem Restoration, and Recreation Project Upstream of Highway 101 project, which is intended to increase the creek's capacity between West Bayshore Road and the Pope-Chaucer Bridge location to allow the creek to contain (and thus protect nearby communities from) flows up to the 1998 flood event level. Technical analyses that will be presented in the EIS/EIR for the Searsville Watershed Restoration Project will account for this future project as an existing condition.

<sup>5</sup> The 1.5 million cubic yards of sediment is based on the highest estimates of volume of sediment likely to be evacuated during a series of very wet years. The flushing would be limited to 1.5 million cy by stabilizing sediment in place as needed to ensure the Project would not contribute to downstream flooding.

downstream of the dam plunge pool to dissipate erosive energy from high flows and to facilitate fish passage conditions through the tunnel.

- ***Adaptive Management.***<sup>6</sup> Adaptive management procedures would be used to modify the restoration design as needed based on actual conditions that occur in the field. Examples include enhanced flushing (e.g., moving sediment in the Tributary Deltas area to promote flushing), gate operations (e.g., to saturate sediments or otherwise adjust the gate position during flushing), and invasive species management.
- ***San Francisquito Creek Pump Station Upgrade.*** The proposed Project includes modifications to the Pump Station to compensate for the loss of water diversion at Searsville Reservoir. The Pump Station would be modified to enable the existing surface water diversions at Searsville Reservoir to be relocated to the Pump Station and to remedy existing sediment-related operating deficiencies.
- ***Replacement of Felt Dam and Expansion of Felt Reservoir.*** Felt Dam would be replaced by a new dam to enable expansion of Felt Reservoir and to improve the seismic stability of the dam. The expanded Felt Reservoir would replace historic non-potable water supplies and storage capacity lost at Searsville Reservoir and enhance water supply reliability during droughts and other emergencies.

## ALTERNATIVES

A reasonable range of alternatives, including the No-Project Alternative, will be evaluated in the EIS/EIR in accordance with CEQA and the State CEQA Guidelines. Because the document will be prepared jointly with USACE, the environmental impacts of the alternatives will be evaluated at an equal level-of-detail with the proposed Project. DWR, with the USACE, will make its final choice of potentially feasible alternatives to include in the Draft EIS/EIR after receipt of scoping comments.

## POTENTIAL ENVIRONMENTAL EFFECTS

The environmental analysis will focus on examining the potential environmental impacts associated with the proposed Project and identifying feasible measures and alternatives that can be implemented to avoid, minimize, rectify, reduce, or compensate for such impacts. The EIS/EIR will also discuss growth-inducing impacts, as well as cumulative effects of the proposed Project when considered in conjunction with other related past, present, and reasonably foreseeable future projects. The EIS/EIR will also address climate change and resiliency.

On the basis of preliminary evaluations, the EIS/EIR will consider the extent to which the proposed Project could have the following direct, indirect, and/or cumulative environmental effects:

<sup>6</sup> “Adaptive management is a process that promotes flexible decision making which can be adjusted in the face of uncertainties as outcomes from management actions and other events become better understood. Monitoring of these outcomes help adjust policies or operations as part of an iterative learning process.” (McMillen Jacobs Associates, 2021. *Searsville Watershed Restoration Project, Design Documentation Report, Construction Documents Phase – 60%, Draft, May 2021.*)

- **Surface Water:** Substantially alter drainage patterns in a manner that would result in substantial erosion or siltation, substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or offsite, or impede or redirect flood flows.
- **Groundwater:** Substantially decrease groundwater supplies or interfere with groundwater recharge such that the proposed Project may impede sustainable groundwater management of the basin or conflict with a sustainable groundwater management plan.
- **Water Quality:** Violate water quality standards or waste discharge requirements, otherwise substantially degrade surface water quality, or conflict with a water quality control plan.
- **Biological Resources:** Adversely affect special-status plant or wildlife species, riparian or other sensitive natural community, or protected wetlands; interfere with the movement of any native resident or migratory fish or wildlife species; or conflict with local policies or ordinances protecting biological resources.
- **Cultural and Tribal Cultural Resources:** Cause a substantial adverse change in the significance of a historical or archaeological resource, disturb human remains, or cause a substantial adverse change in the significance of a tribal cultural resource.
- **Aesthetics and Visual Resources:** Degrade the existing visual character or quality of public views of the site and its surroundings, conflict with applicable zoning and other regulations governing scenic quality, or substantially damage scenic resources.
- **Land Use, Agricultural, and Forestry Resources:** Conflict with land use plans, policies or regulations; convert farmland to non-agricultural use; or result in the loss of forest land.
- **Air Quality:** Increase criteria air pollutants, conflict with or obstruct implementation of an air quality plan, or expose people to substantial pollutant concentrations.
- **Greenhouse Gas Emissions:** Generate greenhouse gas emissions that may have a significant effect on the environment or conflict with applicable plans, policies, or regulations.
- **Energy:** Result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a state or local plan for renewable energy or energy efficiency.
- **Geology, Soils, and Paleontology:** Cause potential substantial adverse effects involving fault rupture, seismic groundshaking, seismic-related ground failure, landslides, substantial soil erosion or the loss of topsoil; be located on expansive soil, a geologic unit, or soil that is unstable or would become unstable as a result of the proposed Project; or destroy a unique paleontological resource or unique geologic feature.
- **Hazards, Hazardous Materials, and Wildfire:** Create a significant hazard through routine transport, use, or disposal of, or reasonably foreseeable upset or accident conditions; emit hazardous emissions or handle hazardous materials within one-quarter mile of a school; impair implementation of an adopted emergency response plan or evacuation plan; expose people or structures to a significant risk involving wildland fires; require the installation or maintenance of infrastructure that may exacerbate fire risk; or expose people or structures to significant risks resulting from post-fire runoff, slope instability, or drainage changes.
- **Noise and Vibration:** Generate a substantial increase in ambient noise levels in the vicinity of the proposed Project in excess of standards established in local general plans or noise ordinances, or applicable standards of other agencies or result in generation of excessive groundborne vibration or noise levels in the Project site vicinity.

- **Population and Housing:** Displace substantial numbers of people or housing, necessitating the construction of replacement housing elsewhere.
- **Utilities, Service Systems, and Public Services:** Require construction of new or expansion of existing utilities that could cause significant environmental effects; generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure; or result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities.
- **Recreation:** Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- **Transportation:** Conflict with a program, plan, ordinance, or policy addressing the circulation system including transit, roadway, bicycle, and pedestrian facilities; conflict with CEQA Guidelines section 15064.3 subdivision (b); substantially increase hazards due to a geometric design feature or incompatible uses; or result in inadequate emergency access.
- **Climate Change:** Affect resiliency to respond to climate change.

## SCOPING MEETINGS

Two public scoping meetings are scheduled to take place on Tuesday, February 28.

- **Zoom information for the 3:00 to 4:30 p.m. meeting:**

Meeting link: <https://kearnswest.zoom.us/j/82343204260>

Dial-in Number: 1-309-205-3325

Meeting ID: 823 4320 4260

- **Zoom information for the 6:00 to 7:30 p.m. meeting:**

Meeting link: <https://kearnswest.zoom.us/j/89875146206>

Dial-in Number: 1-309-205-3325

Meeting ID: 898 7514 6206

The objective of the meetings is to brief interested parties about the proposed Project and obtain the views of agency representatives, interested parties, Native American Tribes, and the public on the scope and content of the EIR/EIS, including the alternatives to be addressed and potentially significant environmental impacts. The public scoping meeting will be held jointly with USACE.

## COMMENTS

This notice is being circulated to obtain suggestions and information from other agencies, the public, and other interested parties on the content and scope of issues and alternatives to consider in developing the EIS/EIR. The primary purpose of the scoping process is to identify important issues raised by the public and responsible and trustee public agencies related to the proposed Project's potential impacts, issuance of regulatory permits and authorizations and natural resource protection. Written comments from interested parties are invited to ensure that the full range of environmental issues related to implementation of the proposed Project are identified.

The Draft EIS/EIR is currently anticipated to be available for public review and comment in Fall of 2023 and will be posted on the DWR web page for the proposed Project after publication.

**COMMENT PERIOD:** As stated above, the NOP review period is from February 14, 2023 to March 17, 2023. Written comments on the scope of the EIS/EIR must be received by DWR no later than 5 p.m. on March 17, 2023. Written comments must be sent:

- By mail to:

California Department of Water Resources, c/o Ted Frink  
P.O. Box 942836  
Sacramento, CA 94236-0001

with the letter subject heading “RE: Searsville Watershed Restoration Project public comment”, or

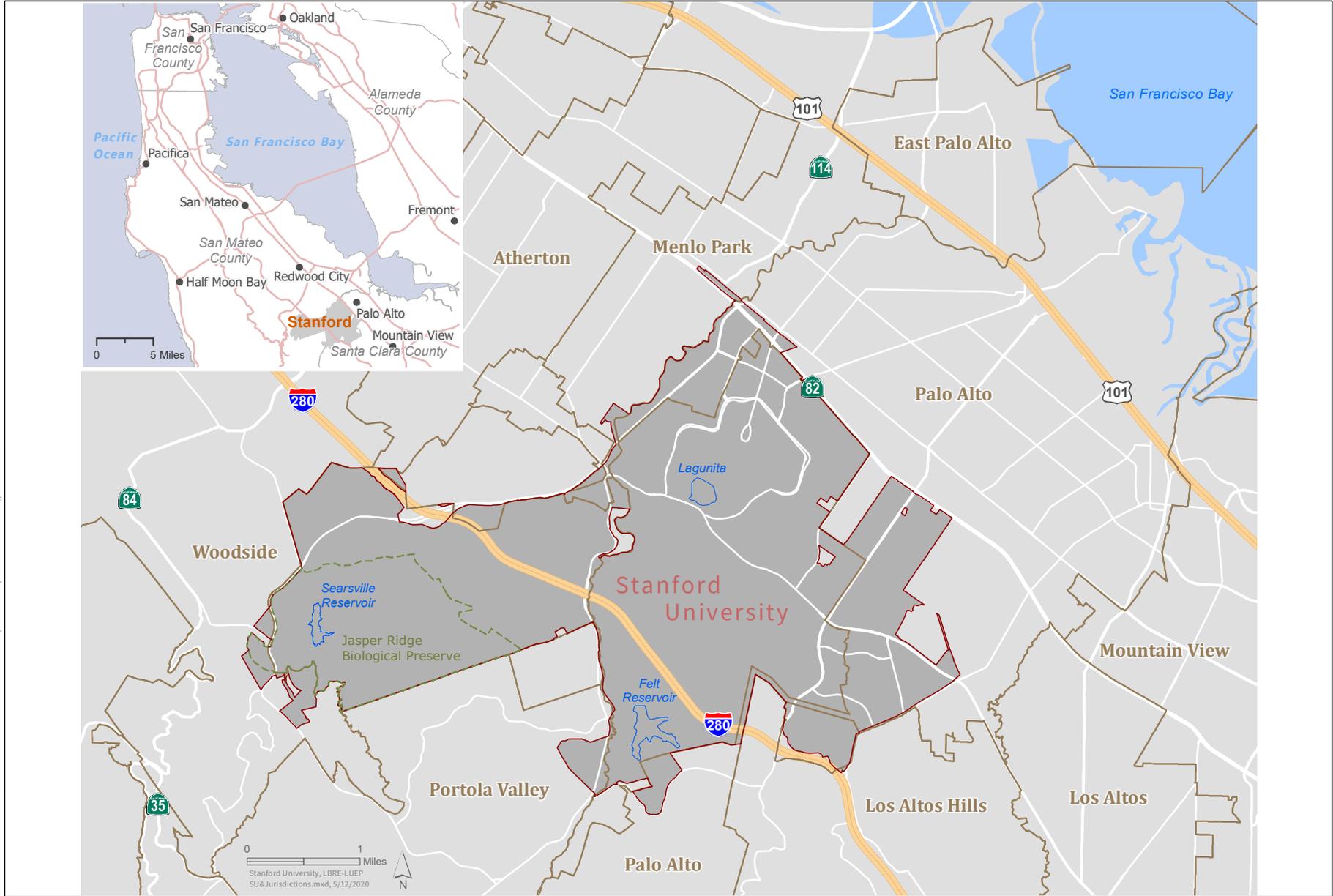
- Via email to: [DWRSearsville@water.ca.gov](mailto:DWRSearsville@water.ca.gov) with the subject heading “RE: Searsville Watershed Restoration Project public comment”

As required by the CEQA Guidelines, within 30 days after receiving the NOP, each responsible and trustee agency is required to provide the lead agency with specific detail about the scope, significant environmental issues, reasonable alternatives, and mitigation measures related to the responsible or trustee agency's area of statutory responsibility that will need to be explored in the EIS/EIR. In responding to the NOP, responsible and trustee agencies should indicate their respective level of responsibility for the proposed Project. Responsible and trustee agencies will need to use the EIS/EIR prepared by DWR when considering issuance of permits or other approvals for the proposed Project.

PLEASE NOTE: DWR's practice is to make the entirety of comments received a part of the public record. Therefore names, home addresses, home phone numbers, and email addresses of commenters, if included in the response, will be made part of the record available for public review. Individual commenters may request that DWR withhold their name and/or home addresses, etc., but if you wish DWR to consider withholding this information you must state this prominently at the beginning of your comments. In the absence of this written request, this information will be made part of the record for public review. DWR will always make submissions from organizations or businesses, and from individuals identifying themselves as representatives of, or officials of, organizations or businesses, available for public inspection in their entirety.

If you submit written comments on the document, you will automatically be added to the distribution list for future notices and information about the environmental review process for the proposed Project. If you do not wish to submit comments on the scope and content of the EIR but would like to be added to the mailing list, you can submit your contact information, including email address, with a request to be added to the mailing list at the contact above.

Interested parties may also provide oral comments on the proposed content and scope of the EIS/EIR at the public scoping meetings listed above. Additional information regarding the proposed Project can be found on the DWR web page at <https://water.ca.gov/searsville>.



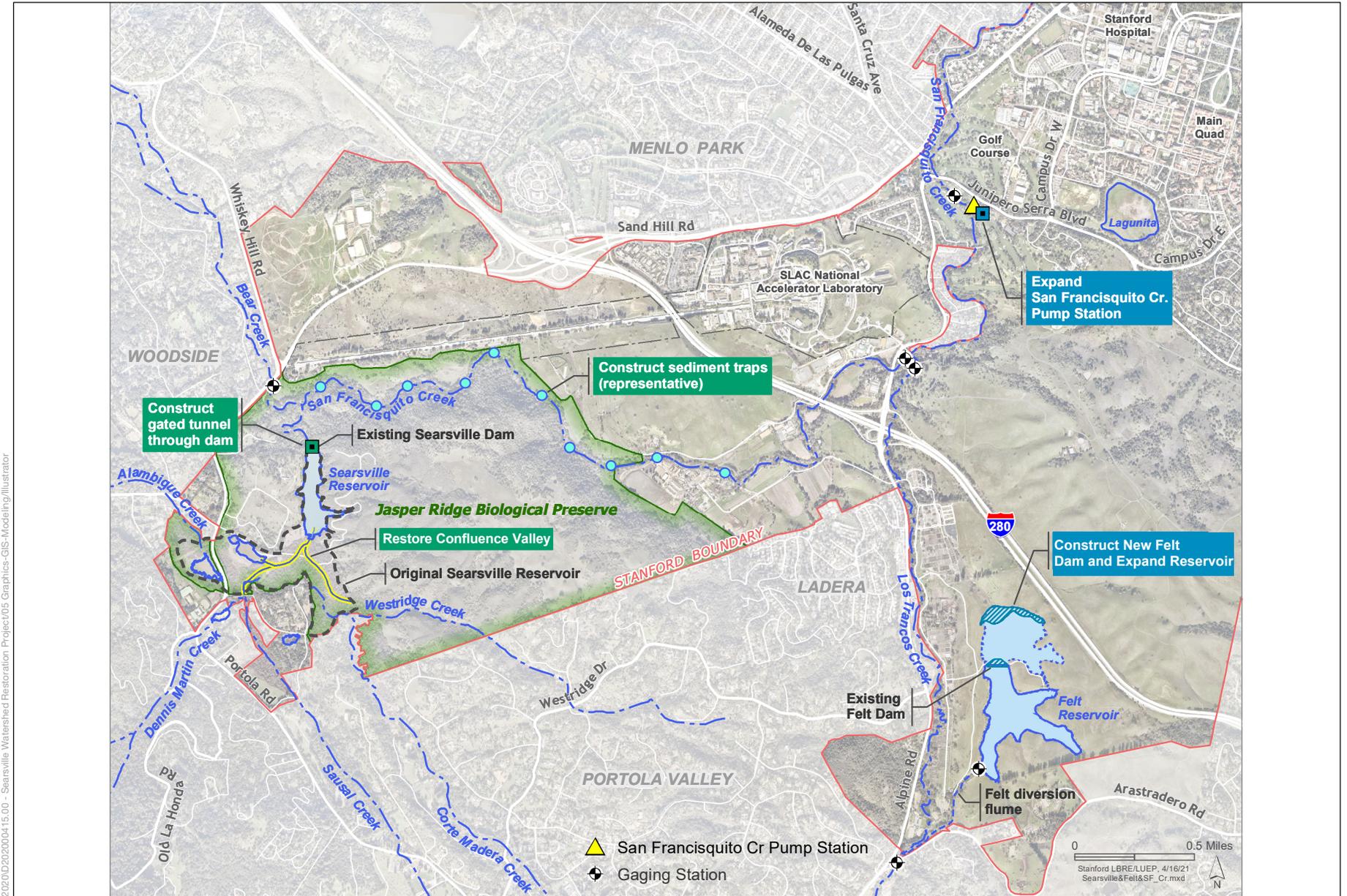
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SOURCE: Stanford University

Searsville Watershed Restoration Project

**Figure 1**  
Regional Map





SOURCE: Stanford University, 2022

Searsville Watershed Restoration Project

**Figure 2**  
Proposed Project