

# RECLAMATION

*Managing Water in the West*

## Categorical Exclusion Checklist

### Martinez Dam Issue Evaluation

MP-CEC-16-03

Prepared by:

Andrea Meier

Date: 8/25/2016

Andrea Meier  
Natural Resources Specialist

Concurred by:

SEE ATTACHMENT 2

Date: \_\_\_\_\_

Scott Williams, Archaeologist  
Concurrence with item 8

Concurred by:

SEE ATTACHMENT 3

Date: \_\_\_\_\_

Kevin Clancy  
Native American Affairs Program Manager  
Concurrence with item 11

Approved by:

SBML

Date: 8/29/16

Steven Melavic  
Regional Engineer  
Mid Pacific Regional Office



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# Proposed Action

The purpose of the Martinez Dam Cone Penetration Testing (CPT) is to gather embankment and foundation engineering properties that will be used to predict how well the dam would perform during an earthquake. CPT will be conducted along the crest of the dam and along the downstream toe and would occur at nine locations. Access to the action area will occur via a maintenance road off of Pacheco Boulevard.

CPT is a method used to determine the geotechnical engineering properties of soils and stratigraphy. In CPT, an electronic steel probe is pushed into the test area. Probes collect readings about the friction it encounters, pore water pressures, water table, soil types, and other data. CPT can also be used to calculate shear wave velocities through the soil to derive soil liquefaction potential. Equipment used to conduct the CPT include a forty-ton CPT rig, push system, CPT probe equipped with geophone sensors, an electric wave generator attached to the CPT rig, and an electronic trigger. Geophone sensors measure the magnitude and arrival time of seismic shear and compression waves. Equipment will remain on the maintenance road surfaces around the dam and reservoir.

# Project Location

Martinez Dam and Reservoir are located between an industrial zone and residential area off of Pacheco Boulevard in Martinez, Contra Costa County, California. The center coordinates of the work area are Latitude 38.019775°N and Longitude -122.108161°W. The reservoir is the terminus for the Contra Costa Canal. The dam and reservoir are owned by the Bureau of Reclamation and the facility is operated by the Contra Costa Water District (CCWD).

# Exclusion Category

516 DM 14.5 B (3): Data collection studies that involve test excavations for cultural resources investigations or test pitting, drilling, or seismic investigations for geologic exploration purposes where the impacts will be localized.

Figure 1. Vicinity map for the proposed action

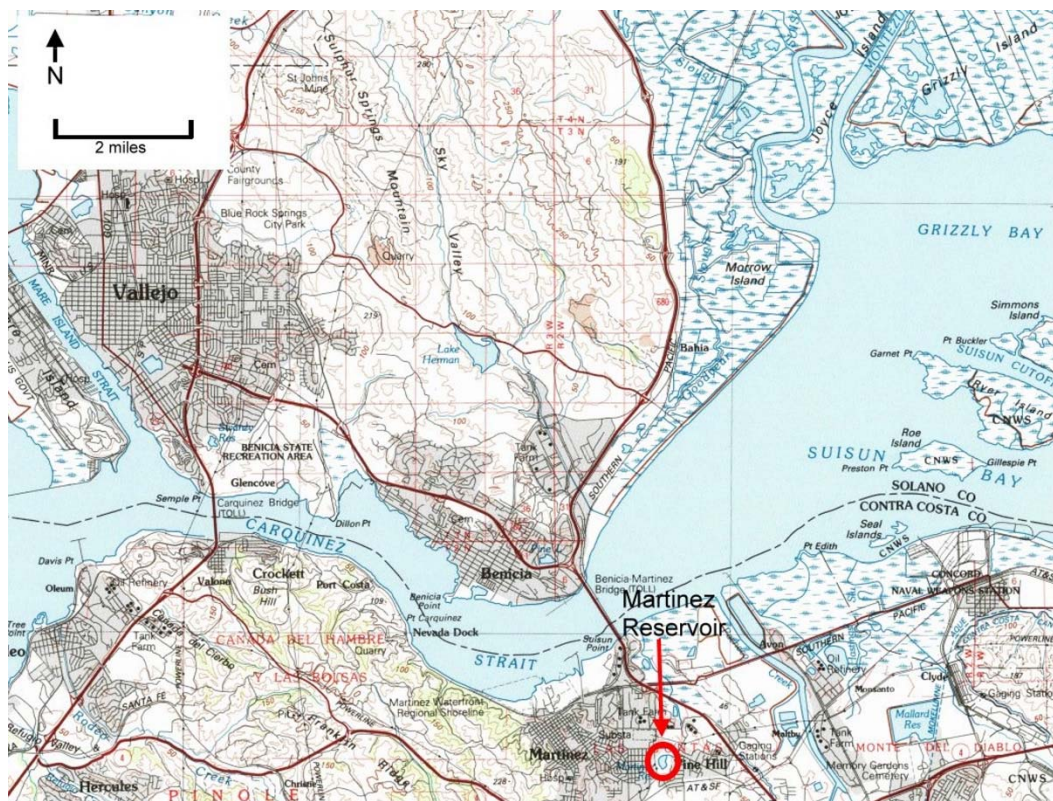


Figure 2. CPT locations and access point



# Extraordinary Circumstances

Below is an evaluation of the extraordinary circumstances as required in 43 CFR 46.215.

- |   |    |                                     |           |                          |     |                          |
|---|----|-------------------------------------|-----------|--------------------------|-----|--------------------------|
| 1. This action would have a significant effect on the quality of the human environment (40 CFR 1502.3).   | No | <input checked="" type="checkbox"/> | Uncertain | <input type="checkbox"/> | Yes | <input type="checkbox"/> |
| 2. This action would have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources (NEPA Section 102(2)(E) and 43 CFR 46.215(c)).  | No | <input checked="" type="checkbox"/> | Uncertain | <input type="checkbox"/> | Yes | <input type="checkbox"/> |
| 3. This action would have significant impacts on public health or safety (43 CFR 46.215(a)).  | No | <input checked="" type="checkbox"/> | Uncertain | <input type="checkbox"/> | Yes | <input type="checkbox"/> |
| 4. This action would have significant impacts on such natural resources and unique geographical characteristics as historic or cultural resources; parks, recreation, and refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (EO 11990); flood plains (EO 11988); national monuments; migratory birds; and other ecologically significant or critical areas (43 CFR 46.215 (b)). | No | <input checked="" type="checkbox"/> | Uncertain | <input type="checkbox"/> | Yes | <input type="checkbox"/> |
| 5. This action would have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks (43 CFR 46.215(d)).   | No | <input checked="" type="checkbox"/> | Uncertain | <input type="checkbox"/> | Yes | <input type="checkbox"/> |
| 6. This action would establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects (43 CFR 46.215 (e)).  | No | <input checked="" type="checkbox"/> | Uncertain | <input type="checkbox"/> | Yes | <input type="checkbox"/> |
| 7. This action would have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects (43 CFR 46.215 (f)).  | No | <input checked="" type="checkbox"/> | Uncertain | <input type="checkbox"/> | Yes | <input type="checkbox"/> |
| 8. This action would have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by Reclamation (LND 02-01) (43 CFR 46.215 (g)). See Attachment 2.  | No | <input checked="" type="checkbox"/> | Uncertain | <input type="checkbox"/> | Yes | <input type="checkbox"/> |

9. This action would have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have significant impacts on designated critical habitat for these species (43 CFR 46.215 (h)). No ☒ Uncertain ☐ Yes ☐
10. This action would violate a Federal, tribal, State, or local law or requirement imposed for protection of the environment (43 CFR 46.215 (i)). No ☒ Uncertain ☐ Yes ☐
11. This action would affect Indian Trust Assets (ITA) (512 DM 2, Policy Memorandum dated December 15, 1993). See Attachment 3. No ☒ Uncertain ☐ Yes ☐
12. This action would have a disproportionately high and adverse effect on low income or minority populations (EO 12898) (43 CFR 46.215 (j)). No ☒ Uncertain ☐ Yes ☐
13. This action would limit access to, and ceremonial use of, Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (EO 13007, 43 CFR 46.215 (k), and 512 DM 3)). No ☒ Uncertain ☐ Yes ☐
14. This action would contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act, EO 13112, and 43 CFR 46.215 (l)). No ☒ Uncertain ☐ Yes ☐

## NEPA Action Recommended

☒ CEC – This action is covered by the exclusion category and no extraordinary circumstances exist. The action is excluded from further documentation in an EA or EIS.

☐ Further environmental review is required, and the following document should be prepared.

☐ EA

☐ EIS

# Special Considerations

## Endangered Species Act Consultation

Reclamation requested concurrence from the U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, in May 2016 that the action may effect, but was not likely to adversely affect California red-legged frog (*Rana draytonii*) and Alameda whipsnake (*Masticophis lateralis euryxanthus*). The Service responded in August 2016 with a letter concurring with Reclamations determination (Attachment 1). To avoid and minimize effects of federally-listed species that may be present in the testing area, Reclamation has committed to implementing the following:

- (1) The CPT crew will avoid direct disturbance of rodent burrows and soil cracks by remaining on existing maintenance roads.
- (2) Pre-CPT surveys will be conducted by a qualified biologist 24-hours before the start of work. A biological monitor will be present during CPT activities to ensure there are no direct impacts to listed species.
- (3) In the event that a listed species is encountered in the work area, work shall be stopped in the immediate area and time given to allow the animal to leave the area. The USFWS will be contacted by the qualified biologist for direction on how to proceed if the animal does not leave the area.

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## **Attachment 1**

### **USFWS Concurrence Memo**



# United States Department of the Interior



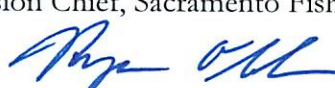
In Reply Refer to:  
08ESMF00-  
2016-I-1594

FISH AND WILDLIFE SERVICE  
Sacramento Fish and Wildlife Office  
2800 Cottage Way, Suite W-2605  
Sacramento, California 95825-1846

AUG 18 2016

## Memorandum

To: Regional Environmental Officer, Bureau of Reclamation, Sacramento, California

From: Coast Bay Division Chief, Sacramento Fish and Wildlife Office, Sacramento, California  


Subject: Concurrence with a Not Likely to Adversely Affect Determination for the Martinez Dam Cone Penetration Testing, Contra Costa County, CA

This Memorandum is in response to your May 11, 2016, request that the U.S. Fish and Wildlife Service (Service) concur with your determination that the proposed Martinez Dam Cone Penetration Testing (CPT) Project (Project) may affect, but is not likely to adversely affect, the federally threatened California red-legged frog (*Rana draytonii*) and its critical habitat, and the federally threatened Alameda whipsnake (*Masticophis lateralis euryxanthus*) and its critical habitat, in accordance with the requirements of the Endangered Species Act of 1973, as amended (Act). Your May 11, 2016, request was received on May 13, 2016.

In reviewing the potential effects of the proposed Project, the Service has relied upon: (1) the May 2016, Biological Assessment submitted with your consultation request; and (2) other information available to the Service.

### Description of the Action

Martinez Dam and Reservoir are located between an industrial zone and residential area off of Pacheco Boulevard in Martinez, Contra Costa County, California. The reservoir is the terminus for the Contra Costa Canal. The dam and reservoir are owned by the Bureau of Reclamation (Reclamation) and the facility is operated by the Contra Costa Water District. The primary purpose of the testing is to gather embankment and foundation engineering properties through the use of CPT that will be used to predict how well the dam would perform during an earthquake.

CPT will be conducted along the crest of the dam and along the downstream toe and would occur at nine locations. Access to the action area will occur via a maintenance road off of Pacheco Boulevard (Attachment 1- Exhibit 1). CPT is a method used to determine the geotechnical engineering properties of soils and stratigraphy. In CPT, an electronic steel probe is pushed into the test area. Probes collect readings about the friction it encounters, pore water pressures, water table, soil types, and other data. CPT can also be used to calculate shear wave velocities through the soil to derive soil liquefaction potential.

Equipment used to conduct the CPT include a forty-ton CPT rig, push system, CPT probe equipped with geophone sensors, an electric wave generator attached to the CPT rig, and an electronic trigger. Geophone sensors measure the magnitude and arrival time of seismic shear and compression waves. Equipment will remain on the maintenance road surfaces around the dam and reservoir.

#### *Timeframe and Duration of Proposed Action*

Each CPT location will require approximately ten-hour field day (8:00 am to 6:00 pm) for the geotechnical crew. Work at the nine CPT sites can be completed in one 10-day shift. This work will occur by December 31, 2016.

#### *Conservation Measures*

The following general conservation measures will be implemented as part of the Proposed Action:

To avoid and minimize effects of federally-listed species that may be present in the testing area, Reclamation will implement the following:

- (1) The CPT crew will avoid direct disturbance of rodent burrows and soil cracks by remaining on existing maintenance roads.
- (2) Pre-CPT surveys will be conducted by a qualified biologist, 24-hours before the start of work. A biological monitor will be present during CPT activities to ensure there are no direct effects to listed species.
- (3) In the event that a listed species is encountered in the work area, work shall be stopped in the immediate area and time given to allow the animal to leave the area. The USFWS will be contacted by the qualified biologist for direction on how to proceed if the animal does not leave the area.

California red-legged frogs have been documented greater than 3 miles from the Project site and there is no critical habitat located within 5-miles of the Project site. Critical habitat will not be affected by the Project due to the distance from the Project site. The area surrounding the Project site may provide suitable habitat for the California red-legged frog and without surveys, they are assumed present at the site. Suitable habitat may be adjacent to the Project site in the Contra Costa Canal and Martinez Reservoir. Suitable habitat includes marshes, slow parts of streams, lakes, reservoirs, ponds, and other permanent sources of deep water with dense, shrubby or emergent riparian vegetation. When dispersing through upland areas, they will shelter in soil cracks, under rocks, and in rodent burrows. The project activities would only affect upland habitat and would occur along a maintenance road at the crest of the dam and at the toes of the dam. Direct mortality is unlikely due to location of the project on the maintenance road; however, individuals may move out of nearby shelter due to the vibrations from the CPT, which could increase the potential for predation and desiccation. With the implementation of the conservation measures such as a biological monitor, pre-activity surveys in rodent burrows along the maintenance road, and avoidance of rodent burrows, stopping activity if an individual is observed, adverse effects to individuals such as desiccation or predation would be unlikely and therefore, discountable. Thus the proposed action may affect, but is not likely to adversely affect California red-legged frog.

Alameda whipsnakes have been documented about 4 miles from the Project site and critical habitat is located 2 miles southwest of Martinez Reservoir. Critical habitat will not be affected by the Project due to the distance from the Project site. Suitable habitat for Alameda whipsnake includes chaparral or coastal scrub vegetation, interspersed with other native vegetation types and rock land. The action area contains coastal chaparral habitat interspersed with grasslands. There are some rocky outcrops, rock riprap, and boulders near the maintenance roads and reservoir shore, however the area is not a naturally occurring rock land. The area may provide suitable habitat for the Alameda whipsnake and without surveys, they are assumed present at the site. Because the project would occur on existing maintenance roads, direct mortality of Alameda whipsnake should not occur. While the vibrations during CPT activities may result in whipsnakes seeking deeper cover in nearby crevices or rodent burrows, the effect on their behavior or survival would be minor and insignificant.

The Service concurs that the Martinez Dam Cone Penetration Testing Project, as described here and in Project documents submitted to the Service, may affect, but is not likely to adversely affect California red-legged frog or its critical habitat and Alameda whipsnake or its critical habitat because Project effects are likely to be discountable or insignificant based on the following: (1) The site is an existing, disturbed area alongside the reservoir and is unlikely to contain individuals; (2) all work is to be limited to previously disturbed areas and no suitable habitat will be disturbed; (3) individual Alameda whipsnakes may be disturbed but adverse effects to their survival would not occur; (4) the conservation measures will help ensure that there are no adverse effects to individual California red-legged frog from harassment. Therefore, unless new information reveals effects of the project that may affect federally listed species or critical habitat in a manner not identified to date, or if a new species is listed or critical habitat is designated that may be affected by the proposed action, no further action pursuant to the Act is necessary for the Project.

If you have any questions regarding this memorandum, please contact Claudia Funari at (916) 414-6646, [claudia\\_funari@fws.gov](mailto:claudia_funari@fws.gov), or myself at (916) 414-6623, [ryan\\_olah@fws.gov](mailto:ryan_olah@fws.gov) or at the letterhead address.

Attachment:

Attachments 1. Exhibits

Exhibit 1. Cone Penetration Testing Locations and Access Points



## **Attachment 2**

### **Cultural Resources Memo**

**CULTURAL RESOURCES COMPLIANCE**  
**Division of Environmental Affairs**  
**Cultural Resources Branch (MP-153)**

**MP-153 Tracking Number:** 16-SCAO-099

**Project Name:** Martinez Dam Cone Penetration

**NEPA Document:** CEC

**NEPA Contact:** Andrea Meier, Natural Resource Specialist

**MP 153 Cultural Resources Reviewer:** Scott Williams, Archaeologist



**Date:** June 17, 2016

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Reclamation proposes to gather embankment and foundation engineering properties for Martinez Dam, in Contra Costa County, using cone penetration testing (CPT). This is the type of undertaking that does not have the potential to cause effects to historic properties, should such properties be present, pursuant to the NHPA Section 106 regulations codified at 36 CFR § 800.3(a)(1). Reclamation has no further obligations under NHPA Section 106, pursuant to 36 CFR § 800.3(a)(1).

CPT that will be used to predict how well the dam would perform during an earthquake. CPT will be conducted along the crest of the dam and along the downstream toe and would occur at nine locations. Access to the action area will occur via a maintenance road off of Pacheco Boulevard. Equipment used to conduct the CPT include a forty-ton CPT rig, push system, CPT probe equipped with geophone sensor, an electric wave generator attached to the CPT rig, and an electronic trigger. Equipment will remain on the maintenance road surfaces around the dam and reservoir.

This document is intended to convey the completion of the NHPA Section 106 process for this undertaking. Please retain a copy in the administrative record for this action. Should changes be made to this project, additional NHPA Section 106 review, possibly including consultation with the State Historic Preservation Officer, may be necessary. Thank you for providing the opportunity to comment.

## **Attachment 3**

### **Indian Trust Assets Memo**

## Indian Trust Assets Request Form

\*\*Please send your request to: Kevin Clancy [kclancy@usbr.gov](mailto:kclancy@usbr.gov)

**Date:**

<b>Requested by</b>	Andrea Meier, x 5041
<b>Fund</b>	16XR0680A5
<b>WBS</b>	RX328800110021001
<b>Cost Center</b>	2015200
<b>Region # (if other than MP)</b>	(NA)
<b>Project Name</b>	Martinez Issue Evaluation
<b>CEC or EA Number</b>	(NA)
<b>Project Description</b>	Reclamation will perform geotechnical tests called cone penetration testing (CPT) on the crest and toe of Martinez Dam. The primary purpose of the testing is to gather embankment and foundation engineering properties through the use of CPT that will be used to predict how well the dam would perform during an earthquake. In CPT, an electronic steel probe is pushed into the test area. Probes collect readings about the friction it encounters, pore water pressures, water table, soil types, and other data. CPT can also be used to calculate shear wave velocities through the soil to derive soil liquefaction potential. Equipment used to conduct the CPT include a forty-ton CPT rig, push system, CPT probe equipped with geophone sensors, an electric wave generator attached to the CPT rig, and an electronic trigger. Geophone sensors measure the magnitude and arrival time of seismic shear and compression waves. Equipment will remain on the maintenance road surfaces around the dam and reservoir.

<b>*Project Location (Township, Range, Section, e.g., T12 R5E S10, or XY cords)</b>	Unsectioned, Las Juntas Land Grant, Township 3 North, Range 2 West  38°00'38.79"N (38.019775°N) -122°06'29.38"W (-122.108161°W)
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\*Please include map with request, if available.

### ITA Determination:

The closest ITA to the proposed Martinez Issue Evaluation project is Lytton Rancheria which is approximately 13 miles west of the project area. (See attached image).

Based on the nature of the planned work it **does not** appear to be in an area that will impact Indian hunting or fishing resources or water rights nor is the proposed activity on actual Indian lands. It is reasonable to assume that the proposed action **will not** have any impacts on ITAs.

<u>K. Clancy</u>	<u>Kevin Clancy</u>	<u>8/24/2016</u>
Signature	Printed name of approver	Date

Figure 1. Vicinity Map

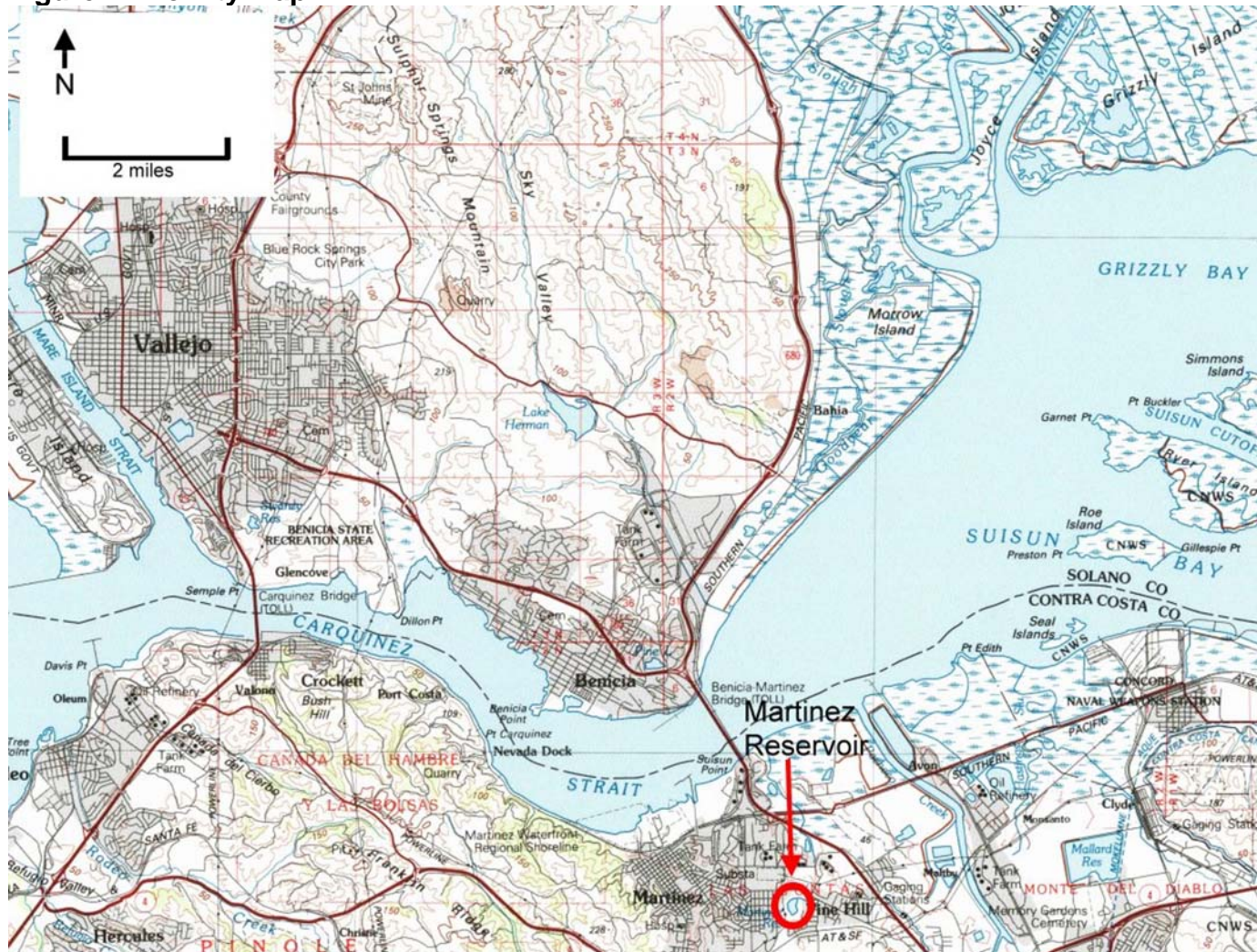


Figure 2. Tessel map with Native American lands layer

