Archaeological Resources

Alisa Reynolds, ICF International
Steps in Identification of Resources

- Literature Review/Record Search
- Field Survey
- Sensitivity Analysis
Archaeological Site Types

- Midden/Mound Sites
- Multiple-Occupation Sites
- Bedrock Milling Features
- Isolated Artifacts
- Human Burials
- Lithic Scatters
- Baked Clay Deposit
Record Search Information
Field Survey
Sensitivity Analysis
Mitigation Measures

Probable eligible archaeological and built resources
Implement treatment/data recovery program, reports

Unknown/unidentified archaeological and built resources
Survey/inventory
Evaluate resources identified
Implement treatment (preservation, data recovery as appropriate)

Buried (unidentified through inventory) archaeological resources
Implement resources discovery plan
Monitor near site or within Sensitive Areas

Buried human remains
CA Health &Safety code 7050.5
NAGPRA if federal land
Historic Built Resources Survey

Bay Delta Conservation Plan

Meg Scantlebury, ICF International
California Asparagus Canneries.

Within the last decade asparagus planting has been undertaken principally in the delta country between Sacramento, Stockton and Port Costa, at the junction of the Sacramento and San Joaquin rivers, where the peaty and sedimentary soils, after reclamation by levees and pump drainage, proved especially suited for the purpose. In 1903 there were new...

Fig. 4.—Vorden Cannery, California Fruit Canners’ Association.
Grand Residential Properties
Modest Residential Properties
Commercial Properties
Agricultural Properties
Rural Historic Landscapes
# Lead Agency Roles & Responsibilities

**Federal and State Lead Agency Roles and Actions for the Bay Delta Conservation Plan (BCDP) and Environmental Impact Report/Environmental Impact Statement (EIR/EIS)**

**DWR - Department of Water Resources**
- Prepared BDP for application for ESA Section 10 Permits
- (also for the State NCCP permits)

**USBR - Bureau of Reclamation**
- Consider the BDP as application for an ESA Section 10 permit for incidental take of federally listed fish and wildlife species.

**USFWS - Fish and Wildlife Service**
- Permit decision on whether to issue an ESA Section 10 permit to DWR
- Consider the BDP as application for an ESA Section 10 permit for incidental take of federally listed fish species.

**NMFS - National Marine Fisheries Service**
- Permit decision on whether to issue ESA 10 permit to DWR
- Consider the BDP as application for an ESA Section 10 permit for incidental take of federally listed fish species.

**USACE - Army Corps of Engineers**
- Permit decision on whether to issue CWA 404, RHA Section 10 and 408 permits to DWR for effects of BDP to waters of the U.S. including wetlands
- Shared oversight of CWA 404 with USACE

**EPA - Environmental Protection Agency**
- Federal Cooperating Agency
- Federal Cooperating Agency; Review authority for EIR/EIS through NEPA and CAA Section 309

**BCDP Actions and Permits**
- Construct proposed BDP water conveyance facilities, implement habitat restoration and actions to reduce other biological stressors and operate SWP
- Potential change in CVP water operations and potential funding and/or implement habitat restoration activities
- Permit decision on whether to issue an ESA Section 10 permit to DWR
- Permit decision on whether to issue ESA 10 permit to DWR
- Permit decision on whether to issue CWA 404, RHA Section 10 and 408 permits to DWR for effects of BDP to waters of the U.S. including wetlands

**CEQA/NEPA**
- CEQA lead for Joint EIR/EIS on the BDP
- NEPA co-lead for Joint EIR/EIS on the BDP
- NEPA co-lead for Joint EIR/EIS on the BDP
- Co-signatory for Programmatic Agreement on the BDP
- Co-signatory for Programmatic Agreement on the BDP
- Co-signatory for Programmatic Agreement on the BDP
- Federal cooperation Agency; Review authority for EIR/EIS through NEPA and CAA Section 309

**NHPA Section 106**
- Invited signatory for Programmatic Agreement on the BDP
- Co-signatory for Programmatic Agreement on the BDP
- Co-signatory for Programmatic Agreement on the BDP
- Federal consultation on Section 10 permit to DWR; Issuing Section 7 BiOps to USBR
- Federal consultation on Section 10 permit to DWR; Issuing Section 7 BiOps to USBR
- Federal consultation on CWA 404, RHA Section 10 and 408 permits

**Tribal Consultation**
- State consultation on BDP water conveyance facilities, habitat restoration, actions to reduce other biological stressors and SWP operations
- Federal consultation on CVP operations and potential funding and/or implementing habitat restoration
- Federal consultation on Section 10 permit to DWR; Issuing Section 7 BiOps to USBR
- Federal consultation on CWA 404, RHA Section 10 and 408 permits

**ESA Section 7**
- Consultation with NMFS and USFWS on CVP operations, funding and/or implementing habitat restoration
- Intra Service consultation with NMFS on ESA Section 10 permit to DWR; Issue BiOps to USBR
- Intra Service consultation with USFWS on ESA Section 10 permit to DWR; Issue BiOps to USBR
- Consultation with NMFS and USFWS on ESA actions

**Acronyms:** BCP = Biological Opinion; CAA = Clean Air Act; CVP = Central Valley Project; CEQA = California Environmental Quality Act; CWA = Clean Water Act; ESA = Endangered Species Act; HCP = Habitat Conservation Plan; NEPA = National Environmental Policy Act; NCCP = Natural Community Conservation Plan; NHAPA = National Historic Preservation Act; RHA = River and Harbors Act; SWP = State Water Project
BDCP and Cultural Resources
-the NHPA Section 106 Process
Federal Cultural Resources Laws

• Federal agencies are responsible for compliance with Federal laws for Federal actions
  – USFW, NOAA, Reclamation, USACE
• National Historic Preservation Act
  – Section 106 for Federal actions
• Archaeological Resources Protection Act
  – Federal lands
• Native American Graves Protection and Repatriation Act
  – Federal lands
What is NHPA Section 106?

“The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. The head of any such Federal agency shall afford the Advisory Council on Historic Preservation established under Title II of this Act a reasonable opportunity to comment with regard to such undertaking. (Section 106 of 16 USC 470)”
What is an Undertaking?

Section 301(7) of the NHPA

"Undertaking" means a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including:

(A) those carried out by or on behalf of the agency;

(B) those carried out with Federal financial assistance;

(C) those requiring a Federal permit, license, or approval; and

(D) those subject to State or local regulation administered pursuant to a delegation or approval by a Federal agency.

Timing - 36 CFR § 800.1(c)

Complete Section 106 process “prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license.”

Nondestructive planning allowed prior to completing Section 106, providing subsequent alternatives to avoid, minimize, or mitigate.
How are Cultural Resources Included in BDCP NEPA Analyses?

• NEPA Document (EIR/EIS)
  – “…preserve important historic, cultural and natural aspects of our heritage ...(42 U.S.C. § 4331)”
  – Cultural resources analyzed in EIS
    – Identified through archival research, aerial maps, surveys, scoping, and consultations
    – Types of resources, sensitivity analysis
    – General mitigation with additional, future compliance for affirmative actions
What are the Federal Partners Doing to comply with NHPA Section 106

• No Lead Federal Agency for 106
• A Programmatic Agreement
  – Define Agency Roles and Responsibilities
  – Consulting Parties
    • Advisory Council on Historic Preservation, California State Historic Preservation Office, Indian Tribes, Interested Parties
  – Outline when an agency will initiate Section 106 on an individual undertaking
  – Each agency will be responsible for its own undertaking pursuant to their process for complying with Section 106
Coordination and Consultation

• NEPA and CEQA Public Involvement
  – Scoping, public meetings, coordination meetings, Tribal/Native American meetings
  – EIS/EIR review comments (ends July 29, 2014)

• NHPA Section 106 Coordination
  – Letters provide notice of intention to enter into a PA
  – Invite participation in the PA
  – Solicit information pertaining to potential effects to historic properties
  – Telephone calls, emails, meetings
Continued Coordination and Consultation

• Compliance for Identified Undertakings
  – Each Federal agency will comply with NHPA for their undertakings as identified

• Future actions
  – Selection of affirmative alternative
    • Programmatic Agreement (NHPA Sec 106) implemented
  – Coordination and Consultation initiated for each undertaking
Contacts

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San Francisco Bay-Delta Fish and Wildlife Office
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National Oceanic and Atmospheric Administration
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National Oceanic and Atmospheric Administration
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Bureau of Reclamation
Ms. Laureen Perry
Regional Archaeologist
Bureau of Reclamation Mid-Pacific Region
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US Army Corps of Engineers
Ms. Erin Hess
National Historic Preservation Act Compliance Regulatory Division, Sacramento District
U.S. Army Corps of Engineers
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erin.e.hess@usace.army.mil
Region Offices Boundary Map

Office Locations:

- Red Bluff
- West Sacramento
- Fresno
- Glendale
North Central Region Office

Office Chief
Eric Hong

Regional Coordinator
Hong Lin

Tribal Liaison
Tim Nelson

To carry out the Department's work within the North Central Region's boundaries and to maintain close contact with local interests to facilitate communication on integrated water-related matters, towards sustainable water resources management.
Integrated Regional Water Management

Common Region Office Programs

• Data Collection and Dissemination
  – Surface Water, Groundwater, Water Quality, Land & Water Use
• Geologic Investigations
• Watershed Management
• Environmental Analysis & Restoration
• Floodplain Management
• Drainage Management & Assessment
• Recreation Studies
• Emergency Response
Integrated Regional Water Management

Land Use Surveys
Survey Counties for:
- Cropping patterns
- Irrigation methods
- Water sources
Integrated Regional Water Management

California Irrigation Management Information System (CIMIS)

CIMIS stations collect weather data and calculate evapotranspiration for improved agricultural and landscape irrigation.

Region Offices maintain CIMIS stations, data are posted at:
www.cimis.water.ca.gov
Integrated Regional Water Management

Groundwater Investigations
Integrated Regional Water Management

Groundwater Management

- Monitor GW levels and quality
- Manage Well Completion Reports
- CA Statewide Groundwater Elevation Monitoring (CASGEM)
- CWP Groundwater Enhancements
Stream Gaging

- Monitor surface water levels and flows
- Data used for compliance monitoring, and flood and water project operations
Integrated Regional Water Management

Bathymetry

- Map channel and lake bottom topography
- Data supports hydraulic modeling and scour and sediment transport studies
Water Quality Monitoring

Monitor water quality for:

- Water project operations
- Ecosystem restoration
- Biological resource monitoring
Regional Planning and Coordination

48 IRWM Planning Regions
Water Supply and Balance

- Detailed Analysis Unit (DAU) level analysis of developed water supply and use balance
- Balances by year for all Hydrologic regions
- Understand how we use and supply water
- Value for planning
Interstate Water Management
Recreation Programs

Floating Campsites are the most unique way to enjoy Lake Oroville. These 20' x 20' double-deck platforms can fit 15 people and include docking for three boats, a gas BBQ, restroom, picnic table, lockable storage closet, food preparation area, and food storage. You must provide your own boat and provide all of your own equipment, including lights, water, sleeping materials, etc. [more information and reservations]

Table Mountain explodes with color every Spring with one of the most impressive wildflower displays in Northern California. [more information]
Emergency Response

• Incident Command Teams
• Flood Emergency Responses
Region Office Contacts

- **Northern Region Office** – Red Bluff
  Mary Randall
  (530) 528-7407
  Mary.Randall@water.ca.gov

- **North Central Region Office** – West Sacramento
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- **South Central Region Office** – Fresno
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Integrated Regional Water Management

DWR Tribal Liaison

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South Central Region Office
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Southern Region Office
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DWR Resources
Introduction

The Groundwater Information Center is DWR's portal for groundwater information, groundwater management plans, water well basics, and statewide and regional reports, maps and figures. California's groundwater provides approximately 30 to 46 percent of the State’s total water supply, depending on wet or dry years, and serves as a critical buffer against drought and climate change. Some communities in California are 100 percent reliant upon groundwater for urban and agricultural use.

DWR has a long-standing history of collecting and analyzing groundwater data, investigating and reporting groundwater conditions, implementing local groundwater assistance grants, encouraging integrated water management, and providing the technical expertise needed to improve groundwater management practices. DWR will continue to work with local agencies and regional organizations to provide data that enables sustainable groundwater management. The Groundwater Information Center website will be updated as new information becomes available.

Groundwater Conditions

On April 30th, 2014, a Drought Response report was completed by DWR and delivered to the Governor’s office as required by the Governor’s Drought Declaration (January, 2014). High-resolution figures from this report are available in the Groundwater Data Reports section of the Groundwater Information Center.

http://www.water.ca.gov/groundwater/
Integrated Regional Water Management

Water Data Library

www.water.ca.gov/waterdatalibrary/
Integrated Water Resources Information System (IWRIS)

www.water.ca.gov/iwris/
What is IRWM?

Integrated Regional Water Management (IRWM) is a collaborative effort to manage all aspects of water resources in a region. IRWM is the application of Integrated Water Management (IWM) principles on a regional scale.

To learn more about IRWM, please view the IRWM-related publications available through our Publications page.

How does IRWM support water management in California?

IRWM enables self-identified regions to integrate and implement water management solutions for their region. The fundamental principle of IRWM is that regional water managers, who are organized into regional water management groups (RWMGs), are best suited and best positioned to manage water resources to meet regional needs. While large inter-regional water management systems, such as the State Water Project, Central Valley Project, and flood management systems, are important, the majority of California’s water resource management investments are made at the local and regional level. IRWM has been critical in helping meet California’s water management challenges, including the 2014 drought.

http://www.water.ca.gov/irwm/
Introduction and Background

Land & Water Use Section
Northern Region Office
Red Bluff, CA
Colusa Basin

IMPORT
SACRAMENTO RIVER DIVERSION
TAF

LOCAL SURFACE INFLOW
TAF

TEMAK COLA RIVER DIVERSION
TAF

OTHER DIVERSIONS
TAF

PRECIPITATION
TAF

WILLows

WATeRfowl

WATER STORAGE
TAF

MAXWELL

WILLiAMS

ARBUCKLE

DUNNIGAN

ACCRETION TO THE RIVER
TAF

DEPLETion FROM RIVER
TAF

ACCURRENT

GROUNd WATER

EXTRACTiON

AGRICULTURAL
TAF

M&I
TAF

WILDLiFE
TAF

DEEP PERCOLATION
APPLIED WATER & CONVEYANCE LOSSES

REUSE
RECLAIMED URBAN
WASTE WATER TAF

AGRICULTURE TAF

by X.T. Cervantes
Overall Picture and Changes

Land & Water Use Section
Northern Region Office
Red Bluff, CA
Expanding Partnerships

Land & Water Use Section
Northern Region Office
Red Bluff, CA
Expanding Partnerships

- Tribal Communities
- Integrated Regional Water Management Plan (IRWMP)
- Managed Wetlands
- Urban Water Purveyors
- Agricultural Water Purveyors
Colusa Indian Community Council
RESERVATION/RANCHERIA
Conclusion

• The Department’s Data Collection Program provides an outstanding water balance template for the transition into IRWMP.

• The Department’s vision is to collaborate with Tribal Communities, Federal, State, and Local agencies to improve data collection, analytical methods, and fill current data gaps.
Wrap Up

Questions and Answers

Land & Water Use Section
Northern Region Office
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Section Chief, Xavier “Tito” Cervantes
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(530) 529-7389
BDCP

UAIC CRM INVENTORY AND RECORDS SEARCH

TRIBAL HISTORICAL RESOURCES INFORMATION SYSTEM (THRIS)

United Auburn Indian Community of the Auburn Rancheria – Tribal Preservation Department

• Jason Camp, Tribal Historic Preservation Officer and Tribal Historic Preservation Committee Vice Chair

• Marcos Guerrero, Cultural Resources Manager
Tribal Historical Resources Information System – Research Components

- CHRIS Data,
- Ethnographic Data
- Historic Maps
- Predictive Modeling
- Field Data Collection
- NAGPRA Data
CHRIS DATA
Historic Maps & Data

Topographic maps

Satellite Maps

Confirm relationship to known resources
Ethnographic and Ethnohistorical Information
Ethnographic Data
Oral Histories and NAGPRA Data
Error Checking

Confirm that the agency correctly identified known archaeological sites.
Sensitivity Maps
Field Data
• Need for a BDCP/DHCCP Tribal Natural and Cultural Resources Working Group;
• Need for additional consultation and baseline research;
• Discrepancy with Site Classification (burial mounds, mounds, named mounds, midden);
• Tribal Monitoring Program.