

# Jack Meyer

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## CURRENT POSITION

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2006–Present *Principal Geoarchaeologist, Far Western Anthropological Research Group, Inc.*

## EDUCATION

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- 1996 M.A. in Cultural Resource Management, Sonoma State University, Rohnert Park, California.
- 1993–1994 Sonoma State University Presidential Scholar.
  - Thesis: Geoarchaeological Implications of Holocene Landscape Evolution in the Los Vaqueros Area of Eastern Contra Costa County, California.
- 1987 B.S. in Sociology and Anthropology (Double Major). Emporia State University, Emporia, Kansas
- Graduated with Distinction
  - 1987 National Deans List

## SUMMARY OF EXPERIENCE

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- More than 15 years of professional experience in California geoarchaeology, prehistoric archaeology, and cultural resources management, including archival research, project coordination, sensitivity assessments, surface survey, subsurface exploration, geochronology, landscape evolution, archaeological excavation and data recovery, artifact analysis, technical reports, and professional publications.
- Conducted studies in Alameda, Amador, Butte, Calaveras, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Inyo, Kern, Lake, Lassen, Los Angeles, Mendocino, Merced, Modoc, Mono, Nevada, Placer, Plumas, Sacramento, Santa Barbara, San Benito, San Bernardino, Santa Barbara, Santa Clara, Santa Cruz, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Shasta, Sierra, Siskiyou, Solano, Sonoma, Tehama, Tulare, Tuolumne, Yolo and Yuba counties.

## PROFESSIONAL MEMBERSHIPS

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- Register of Professional Archaeologists (RPA #670999-00) since April 1998.
- Society for American Archaeology.
- Geological Society of America - Archaeological Geology Division.
- Society for California Archaeology.

MSS-R9

7/15/10

## PROFESSIONAL EXPERIENCE

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- 2002–2006 *Geoarchaeology Program Manager* Anthropological Studies Center,  
Sonoma State University
- Developed, implemented, and administered contracts and supervised personnel for the geoarchaeology program.
  - Tracked budgets, developed and drafted research designs, directed and conducted field investigations and laboratory analyses, and wrote and produced technical and management reports.
- 1997–2002 *Staff Geoarchaeologist and Prehistorian* Anthropological Studies Center,  
Sonoma State University
- Planned, directed, and conducted archaeological fieldwork and laboratory analyses.
  - Wrote archaeological research designs, prehistoric overviews, technical, and management reports.
- 1995–1997 *Project Coordinator-Geoarchaeologist* Los Vaqueros Prehistoric Archaeological Project,  
Contra Costa, California.
- Coordinated archaeological field investigations and geoarchaeological laboratory analysis.
  - Co-authored data recovery and management reports.
- 1992–1995 *Project Coordinator Trainee and Research Assistant* Anthropological Studies Center,  
Sonoma State University
- Conducted archaeological research, field investigations, data recovery, laboratory analysis, and report writing for sites located throughout California.
- 1993–1994 *Researcher*. Northwest Information Center of the California Historical Resources  
Information System, Sonoma State University
- Reviewed cultural resource records for project planning, development, and scientific research.

## PROFESSIONAL PUBLICATIONS

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Meyer, Jack

- 2004 *Featured Research: Recent Developments in California Geoarchaeology*. The Geological Society of America Newsletter of the Archaeological Geology Division, Volume 26(2):5.
- 2002 Sections for public interpretive document: *Life along the Guadalupe River - an Archaeological and Historical journey*, edited Rebecca Allen and Mark Hylkema.
- 2000 Soils and Stratigraphy sections. *In Cross Creek: An Early Holocene/Millingstone Site*, by Richard T. Fitzgerald, pp. 41-45. California State Water Project, Coastal Branch Series Paper Number 12, San Luis Obispo County Archaeological Society.

Rosenthal, Jeffrey S., and Jack Meyer

- 2004 *Landscape Evolution and the Archaeological Record: A Geoarchaeological Study of the Southern Santa Clara Valley and Surrounding Regions*. Center for Archaeological Research at Davis, Publication, Number 14. University of California, Davis.

**TECHNICAL REPORTS (PARTIAL LIST)**

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Meyer, Jack

- 2008 *The Prehistory of the Sonora Region: Archaeological and Geoarchaeological Investigations for Stage 1 of the East Sonora Bypass Project, State Route 108, Tuolumne County, California*. Anthropological Studies Center, Sonoma State University, Rohnert Park, California. Prepared for California Department of Transportation, District 10, Stockton.
- 2008 *The Potential for Buried Archaeological Resources along Part of State Route 99, Tehama County, California*. Prepared with Far Western Anthropological Research Group for the California Department of Transportation, District 2, Redding, California.
- 2008 *Geoarchaeological Assessment and Extended Phase I Investigations for the I-280/Winchester Boulevard and I-880/Stevens Creek Boulevard Improvement Project, Santa Clara County, California*. Prepared with Far Western Anthropological Research Group for David Powers & Associates, San Jose, California.
- 2008 *Extended Phase I Geoarchaeological Studies for the PG&E Line 108 Replacement Project, Sacramento and San Joaquin County, California*. Prepared with Far Western Anthropological Research Group for Pacific Gas & Electric Company, Sacramento California.
- 2008 *Extended Phase I Archaeological and Geoarchaeological Studies for Site CA-CCO-18/H for the PG&E Line 131 Replacement Project, Eastern Contra Costa County, California*. Prepared with Far Western Anthropological Research Group for Pacific Gas & Electric Company, Sacramento California.
- 2008 *A Geoarchaeological Overview and Assessment of Caltrans District 3—Cultural Resources Inventory of Caltrans District 3 Rural Conventional Highways*. Prepared with Far Western Anthropological Research Group for the California Department of Transportation, District 3, North Region, Marysville, California.
- 2007 *Subsurface Geoarchaeological Study for the Proposed Angels Camp Bypass Project Area, State Route 4, Calaveras County, California*. Prepared with Far Western Anthropological Research Group for the California Department of Transportation, District 6, Fresno, California.
- 2005 *Geoarchaeological Study of Big Lagoon, Lower Redwood Creek, Marin County, California*. Anthropological Studies Center, Sonoma State University, Rohnert Park, California. Prepared with Anthropological Studies Center for National Park Service, San Francisco, California.
- 2004 Chapters 2 and 3 (Geoarchaeology). In *SF-80 Bayshore Viaduct Seismic Retrofit Projects Report on Construction Monitoring, Geoarchaeology, and Technical and Interpretive Studies for Historical Archaeology*, edited by Mary Praetzelis, pp. 9-24. Prepared with Anthropological Studies Center for California Department of Transportation, District 4, Oakland, California.
- 2003 *Preliminary Findings of the Big Lagoon Geoarchaeological Coring Program, Lower Redwood Creek, Marin County, California*. Prepared with Anthropological Studies Center for National Park Service, San Francisco, California.
- 2003 *Savage Way Geoarchaeological Study, State Route 26, Calaveras County, California*. Prepared with Pacific Legacy, Inc. Cameron Park, California, for Caltrans District 10, Stockton, California.

**TECHNICAL REPORTS (CONTINUED)**

- 2002 *Geoarchaeological Study for Portions of Lassen Volcanic National Park, Lassen and Shasta Counties, California*. Edited by Greg White, California State University at Chico.
- 2002 *Phase II Investigations at CA-AMA-56 and Phase I.5 Investigations at CA-AMA-160 for the Jackson Creek Bridge-Project on State Route 88, Amador County*. Prepared with Far Western Research Group for the California Department of Transportation, Central Sierra Environmental Branch, Stockton, California. Eric Wohlgemuth co-author.
- 2002 *Regional Landscape Evolution, Little Lake Valley Landscape History, and Landscape Research Issues*. In *General Research design for Archaeological Studies in Little Lake Valley, Mendocino County, California for the Willits Bypass Project*. Prepared with Pacific Legacy for the California Department of Transportation, Marysville, California
- 2002 *Supplemental Archaeological Survey, Historical Study, and Extended Phase I Report, High Street Overhead Seismic Retrofit Project, in the City of Oakland, Alameda County, California*. Prepared with Anthropological Studies Center Report for the California Department of Transportation (District 4), Oakland, California. Co-authored with Jack McIlroy, Elaine-Maryse Solari, Heidi Koenig, and Maria Ribeiro
- 2001 *Broadway/Jackson Street Interchange Improvement Project: Archaeological Survey Report, in the Cities of Oakland and Alameda, Alameda County, California*. Prepared with Anthropological Studies Center Report for the California Department of Transportation (District 4), Oakland, California. Co-authored with Heidi Koenig and Jack McIlroy
- 2001 *Geoarchaeological and Archaeological Investigations for the Central Freeway Seismic Retrofit Project*. Prepared with Anthropological Studies Center Report for the California Department of Transportation (District 4), Oakland, California. Co-authored with Jack McIlroy and Adrian Praetzellis
- 2001 *A Geoarchaeological Study for the Proposed Alameda Highway 238 Widening Project, Alameda County, California*. In *Extended Phase I Assessment of Prehistoric Archaeological Site, CA-ALA-586, for the Highway 238 Widening Project, by Shelly Tiley, Appendix A*. Prepared by Archaeological Research Center, California State University, Sacramento for the California Department of Transportation (District 4), Oakland, California.
- 2001 *Historic Study Report/Phase II Archaeological Evaluation of the Breen Road Site (P-35-000293), San Benito County, California*. Prepared with Anthropological Studies Center Report for the California Department of Transportation (District 5), San Luis Obispo, California. Co-authored with Mark Selverston, Julia G. Costello, and Stephen R. Wee
- 2000 *A Geoarchaeological Study of the Guadalupe Parkway corridor, State Route 87, San Jose, Santa Clara County, California*. Report prepared for the California Department of Transportation, Oakland, California and KEA Environmental, Inc., San Diego, California.
- 2000 *An Archaeological Evaluation of CA-CCO-320/H, with Updates for CA-CCO-397 and CA-CCO-544, Los Vaqueros Area, Contra Costa County, California*. Anthropological Studies Center, Sonoma State University, Rohnert Park, California, Prepared for the Contra Costa Water District, Concord, California.



**TECHNICAL REPORTS (CONTINUED)**

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- 2000 Environmental History, Landscape Evolution, Prehistoric Site Reports, and NRHP Evaluation sections. In *Phase II Archaeological Investigation of CA-CAL-636H, -789, -1679/H, -1679 State Route 4, Calaveras County, California*. Co-authored with Michael D. Meyer, and Suzanne B. Stewart.
- 2000 Environmental Setting and Geoarchaeological Study sections. In *Phase II Archaeological Test Excavations at CA-SCR-313, Highway 17, Santa Cruz County, California*. Co-authored with Deborah A. Jones and Jeffrey S. Rosenthal of Far Western Research Group, Davis, CA.
- 2000 Portions of Theoretical and Methodological Context, Site Reports, Project Chronology and Components, and Synthesis sections. In *Final Report of the Anderson Flat Project, Lower Lake, Lake County, California: Volume I*. Prepared by Greg White for the California Department of Transportation, District 1, Eureka, California
- 1999 *Preliminary Geoarchaeological Study at Green Valley Creek, Solano County, California*. William Lettis and Associates, Walnut Creek, California. Co-authored with John N. Baldwin (Paleoseismology study)
- 1999 *Report on Phase II Geoarchaeological Investigation of CA-YUB-1157, Beak Air Force Base, California* (Preliminary Draft). Pacific Legacy, Aptos, California. Prepared for United States Air Force, Air Combat Command, Beak Air Force Base, California. Co-authored with Janet P. Eidsness.
- 1998 *Results of Archaeological Investigations for the Proposed Trancas Street Interchange Drainpipe Project, Napa County, California*. Anthropological Studies Center, Sonoma State University, Rohnert Park, California. Prepared for Caltrans District 4, Oakland, California. Co-authored with Todd Jaffke.
- 1998 Geoarchaeological Investigation of Portion of the Proposed Hayward Bypass Corridor, Alameda County, California. In *Results of Archaeological Test Excavations at CA-ALA-566 for the Proposed Route 238 Hayward Bypass Project*, edited by Glenn Gmoser, pp. 67-99. Anthropological Studies Center, Sonoma State University, Rohnert Park, California. Prepared for Caltrans District 4, Oakland, California.
- 1996 *Results of Subsurface Archaeological Survey of the Los Vaqueros and Transfer Pipeline Routes, Los Vaqueros Project, Contra Costa County, California*. Anthropological Studies Center, Sonoma State University, Rohnert Park, California. Prepared for the Contra Costa Water District, Concord, California.

**Meyer, Jack, and Graham Dalldorf**

- 2005 *The Potential for Buried Archaeological Resources in the Lake Oroville Facilities Relicensing Area, Butte County, California*. (DRAFT) Anthropological Studies Center, Sonoma State University, Rohnert Park, California. Prepared for California Department of Water Resources.
- 2004 *Geoarchaeological Investigation in the Parks Reserve Forces Training Area, Alameda and Contra Costa Counties, California*. Anthropological Studies Center, Sonoma State University, Rohnert Park, California. Prepared for U.S. Army West Coast Garrison.

**TECHNICAL REPORTS (CONTINUED)**

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Meyer, Jack, and Graham Dalldorf (continued)

- 2004 *Geoarchaeological Investigations for Stage 2 of the East Sonora Bypass Project, State Route 108, Tuolumne County, California.* Anthropological Studies Center, Sonoma State University, Rohnert Park, California. Prepared for California Department of Transportation, District 10, Stockton.

Meyer, Jack, and Jeffrey S. Rosenthal

- 1997 *Archaeological and Geoarchaeological Investigations at Eight Prehistoric Sites in the Los Vaqueros Reservoir Area, Contra Costa County. In Los Vaqueros Project Final Report.* Prepared by the Anthropological Studies Center, Sonoma State University, Rohnert Park, California. Submitted to the Contra Costa Water District, Concord. Report on file, Northwest Information Center, Sonoma State University, Rohnert Park, California.
- 1998 *An Archaeological Investigation of Artifacts and Human Remains from CA-CCO-637, Los Vaqueros Project Area, Contra Costa County, California.* Anthropological Studies Center, Sonoma State Academic Foundation, Inc., Rohnert Park, California. Submitted to Contra Costa Water District, Concord, California, Rohnert Park, California.
- 2007 *A Geoarchaeological Overview for the Nine Bay Area Counties of Caltrans District 4. Far Western Anthropological Research Group, Davis, California.* Prepared for California Department of Transportation, District 4, Oakland, California.

Rosenthal, Jeffrey, and Jack Meyer

- 2004c *Bodie Hills Obsidian Hydration Rates. In Middle Holocene Adaptations in the Central Sierra Nevada Foothills: Data Recovery Excavations at the Black Creek Site, CA-CAL-789.* Far Western Anthropological Research Group, Inc., Davis, California. Submitted to California Department of Transportation, District 06, Fresno.
- 2004 *Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways, Volume III: Geoarchaeological Study, Landscape Evolution and the Archaeological Record of Central California.* Far Western Anthropological Research Group, Davis, California. Prepared for California Department of Transportation, District 10, Stockton.

Rosenthal, Jeffrey S., Jack Meyer, Jim Nelson, Denise Furlong, Tim Carpenter, and Eric Wohlgenuth

- 2006 *Results of Limited Geoarchaeological and Archaeological Study of CA-CCO-18/548, John Marsh Historic Park, Brentwood, California.* Far Western Anthropological Research Group, Inc., Davis, California. Prepared for California Department of Parks and Recreation.

## PROFESSIONAL PRESENTATIONS

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- 1993 Society for California Archaeology Annual Meeting, Asilomar, California.
- Paper title: *Geoarchaeological Investigations at Anderson Flat.*
- 1994 Society for California Archaeology Annual Meeting, Ventura, California.
- Paper title: *The Depositional History of Late Quaternary Alluvial Basins and the Visibility of the Archaeological Record*
- 1996 Society for California Archaeology Annual Meeting, Bakersfield, California.
- Paper title: *Seeing is believing: The Problem and Promise of Subsurface Sites.*
- 1997 Society for California Archaeology Annual Meeting, Rohnert Park, California.
- Organized Symposium title: *The Los Vaqueros Project: Prehistory and Ethnohistory in the Shadow of Diablo.*
  - Paper title: *Geoarchaeology in the Design and Construction of the Los Vaqueros Project.*
  - Paper title: *The Natural Evolution of Composite Cultural Landscapes.*
  - Paper title: *Archaeological Landscape Evolution in the Los Vaqueros Area.*
- 2000 Conference title: *Beneath Our Feet: A 10,000 Year Human and Natural Legacy in the East Bay, at the Oakland Museum of California, 18 November 2001.*
- Presentation title: *More Than 9,000 Years Ago.*
- 2001 Society for California Archaeology Annual Meeting, Modesto, California.
- Plenary Session title: *A Space Odyssey - Escaping the Gravity of Earth.*
  - Paper titled: *Needles, Haystacks, and Old Dirt: A Geoarchaeological View of Buried Archaeological Landscapes.*
- 2003 Joint Session of the Pacific Soil Scientists Association of California (PSSAC) and the Society for California Archaeology (SCA) Annual Meeting, Sacramento, California, March 2003.
- Session title: *PSSAC/SCA Soils and Archeology.*
  - Symposium Paper title: *Talking Dirt: Uses and Past Abuses of Soil and Geologic Studies in California Archaeology.*
- 2007 Society for California Archaeology (SCA) Annual Meeting, San Jose, California, March 2007.
- Plenary Session: *What Lies Beneath San Jose?*

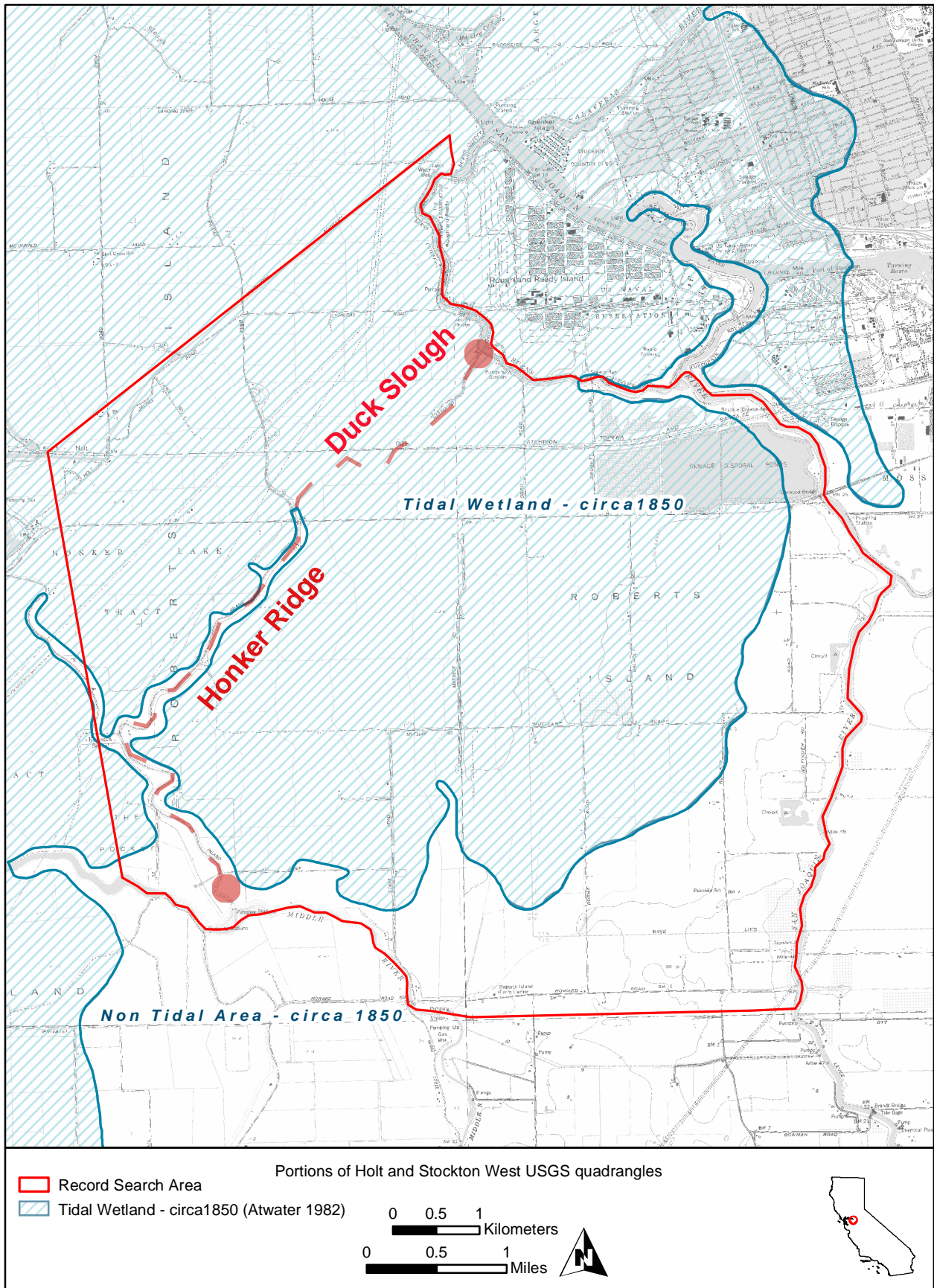


Figure 1. Maximum extent of tidal zone in 1850 A.D. as mapped by USGS geologist Brian F. Atwater (1982). Note elevated topography along Honker Ridge and lack of elevated topography along Duck Slough.





Figure 2. The 1941 soil survey map by University of California soil scientist, Stanley W. Cosby showing distribution of alluvial (greenish) and organic soils (brownish) in the Duck Slough area.



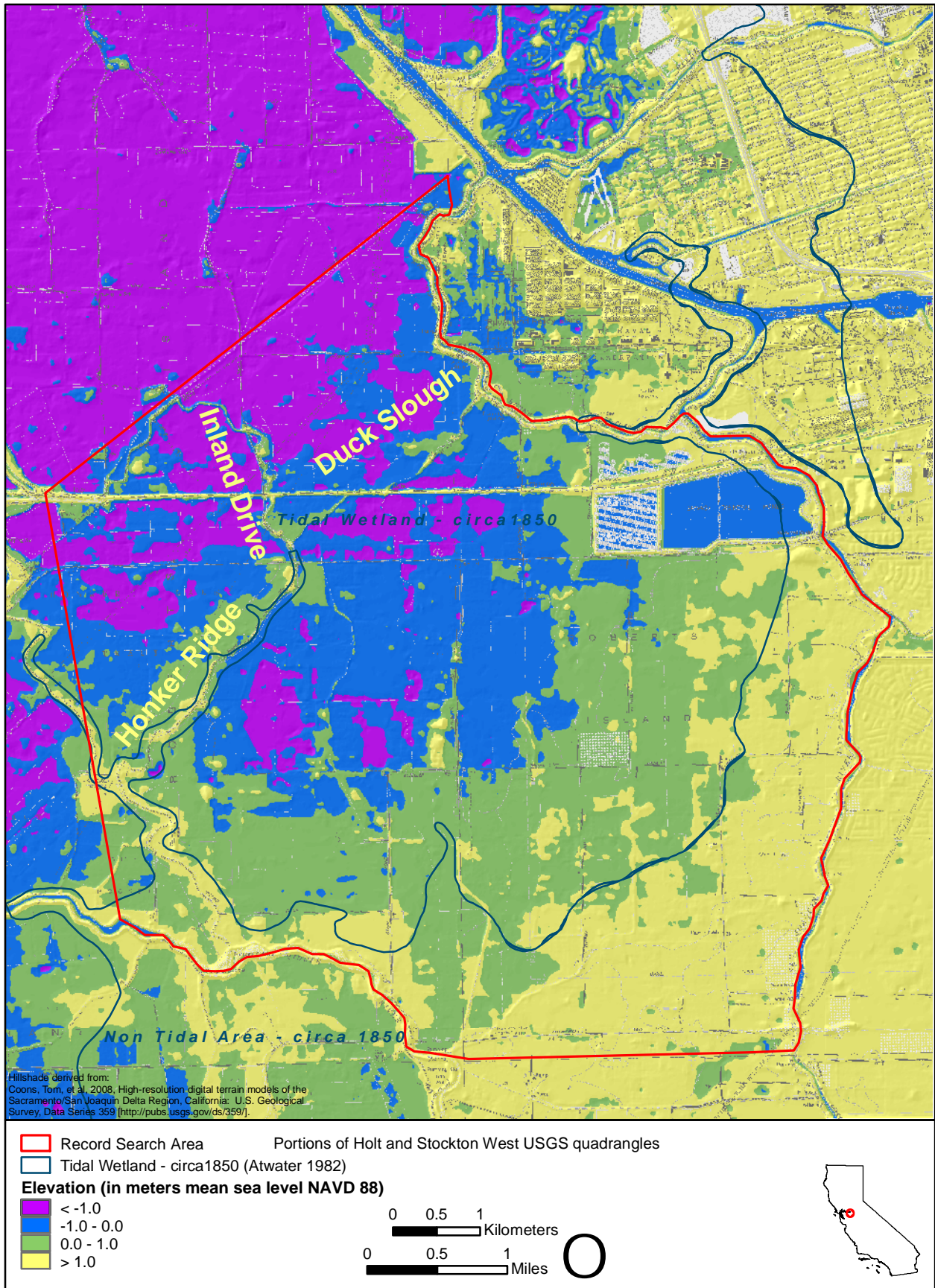


Figure 3. Present extent of land surface above (green and yellow) and below (purple and blue) mean sea level based on high-resolution digital terrain model (Coons et al. 2008).

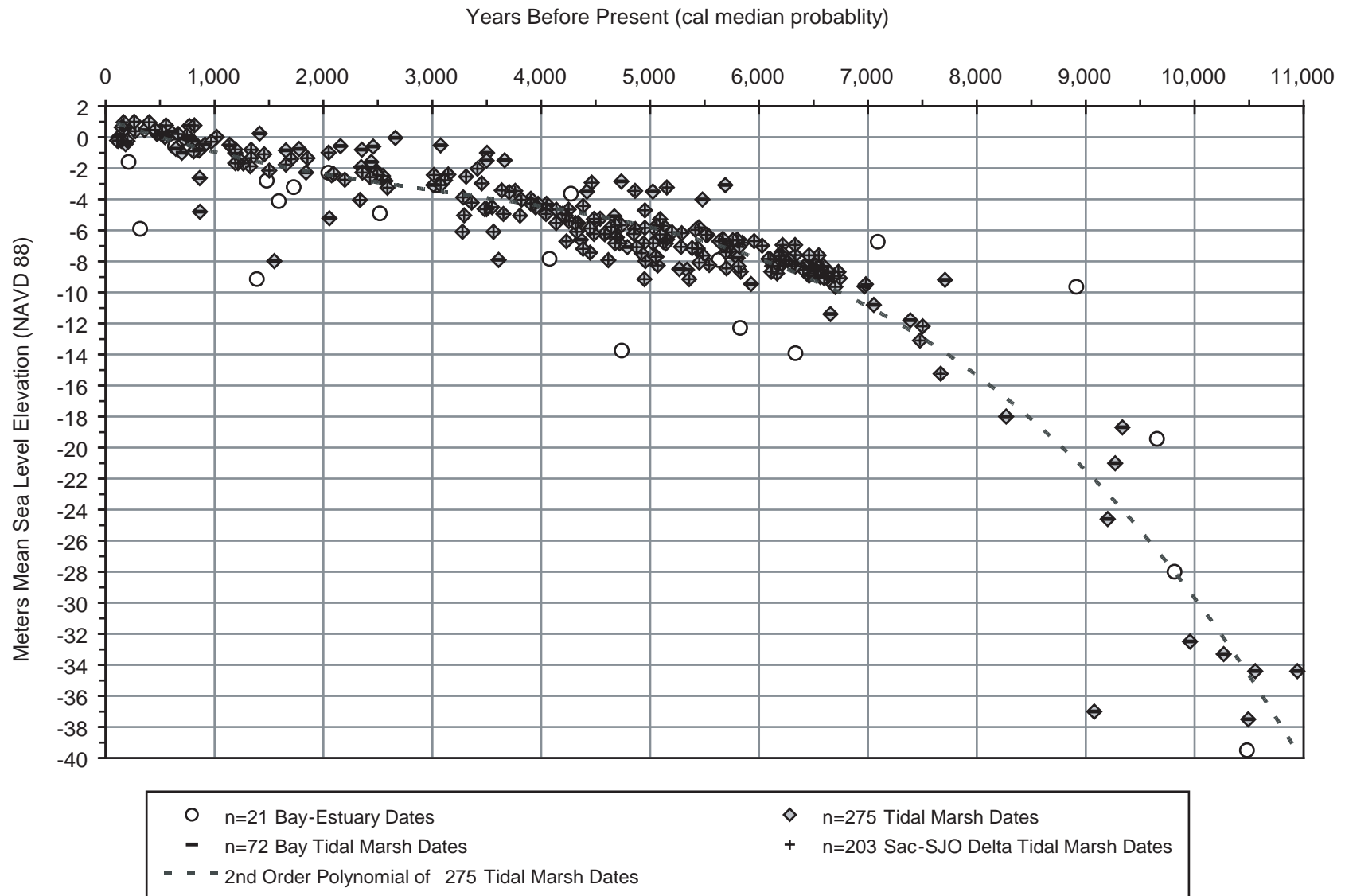
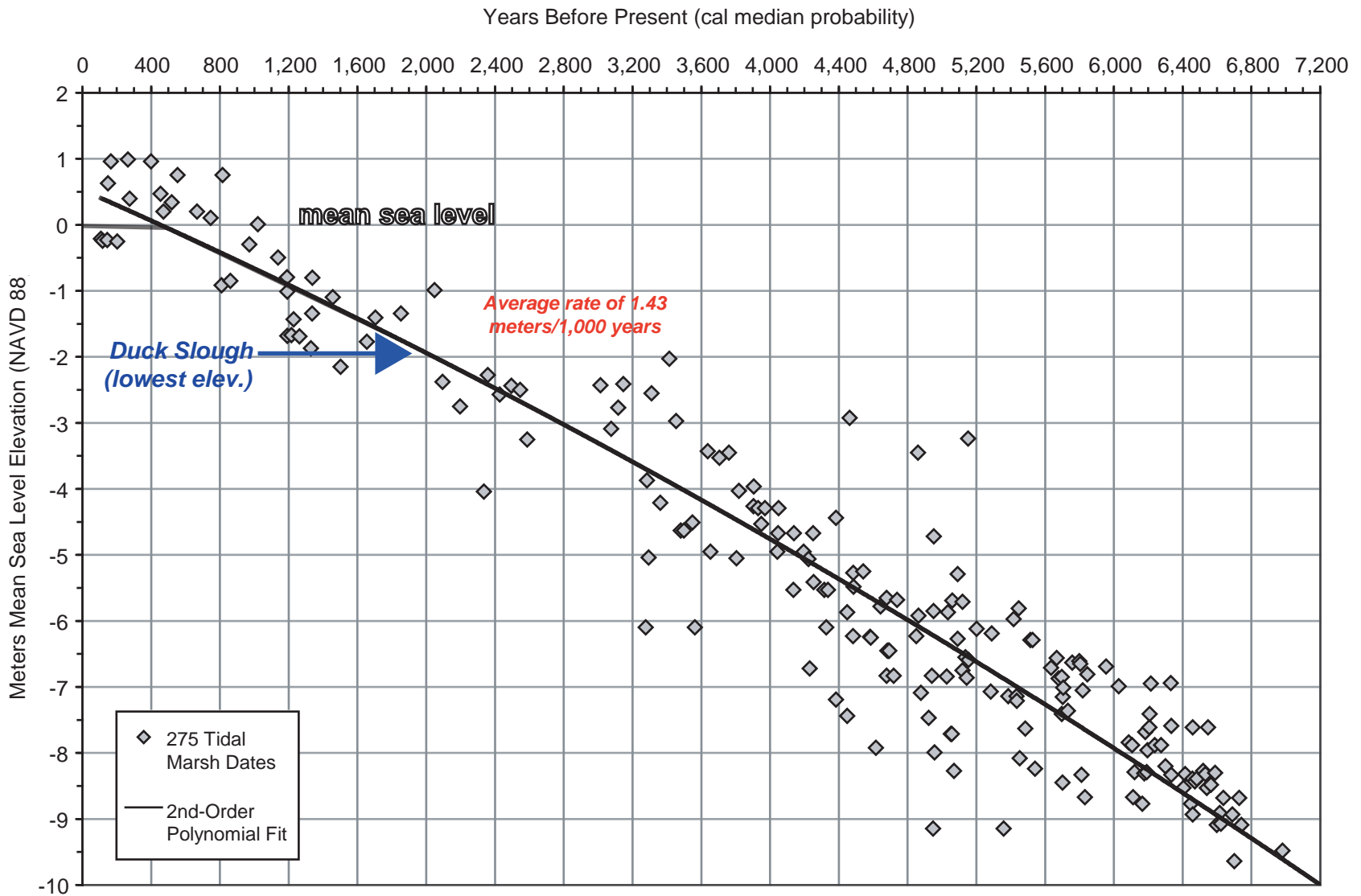
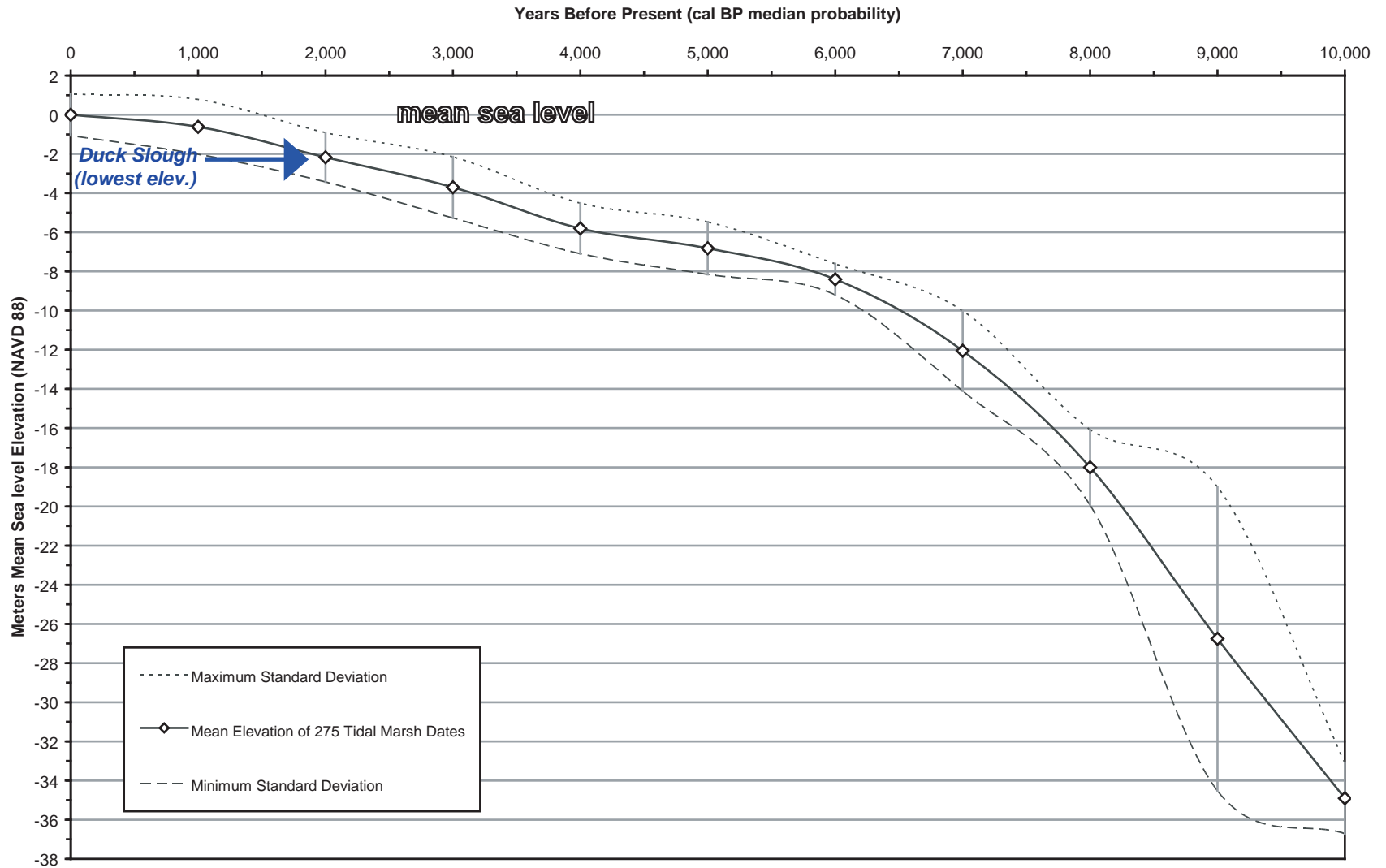


Figure X. Radiocarbon Dates on Estuary and Tidal Marsh Deposits from San Francisco Bay and Sacramento-San Joaquin Delta that Reflect Timing and Extent of Sea-Level Rise over the Past 11,000 Years. Conventional radiocarbon dates calibrated to calendar years using CALIB ver. 6.0 according to according to Stuiver and Reimer (1993). Note: (cal median probability) is the median probability of the probability distribution provided CALIB ver. 6.0. By convention, before present is 1950 A.D., or 0 BP.

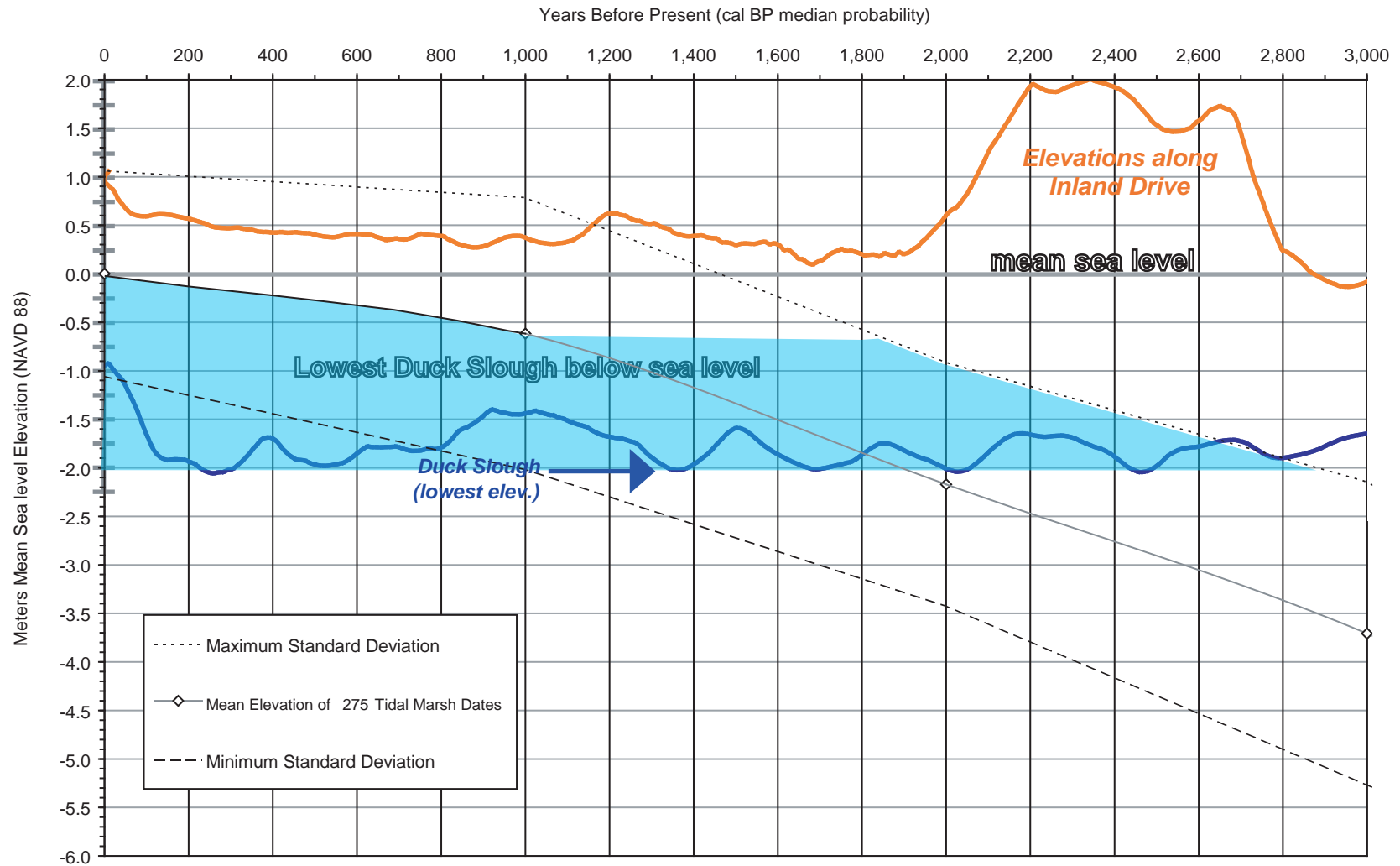


**Figure 5. Rate and Elevation of of Sea-Level Rise Over the Past 7,000 Years in the Sacramento-San Joaquin Delta Region. Note the lowest parts of Duck Slough lie at about -2 meters below sea level.**





**Figure 6. Average Rate and Elevation of Sea-Level Rise Based on Radiocarbon Dates from San Francisco Bay and Sacramento-San Joaquin Delta Tidal Marsh Deposits. Average of 3.5 m/1,000 yrs over past 10,000 years.**



**Figure 7. Average Rate and Elevation of Sea-Level Rise Compared to Surface Elevations Along Like Segments of Duck and Inland Drive (1.23 m/1,000 yr average over past 3,000 years).**

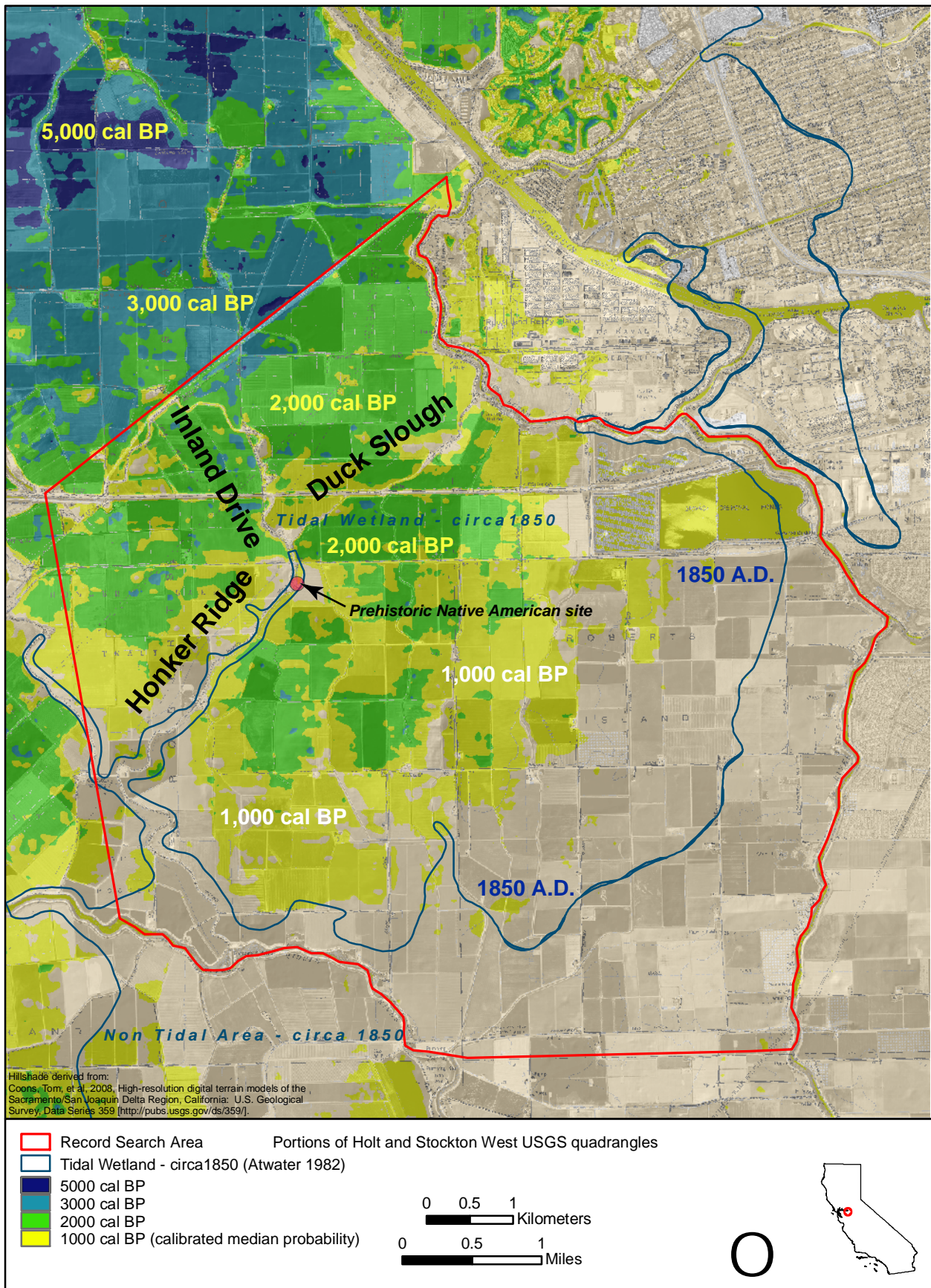


Figure 8. Timing and Extent of Late Holocene Sea-Level Rise In and Around Duck Slough. Based on age and elevation of dates from tidal marshes and high-resolution digital terrain model (Coons et al. 2008).



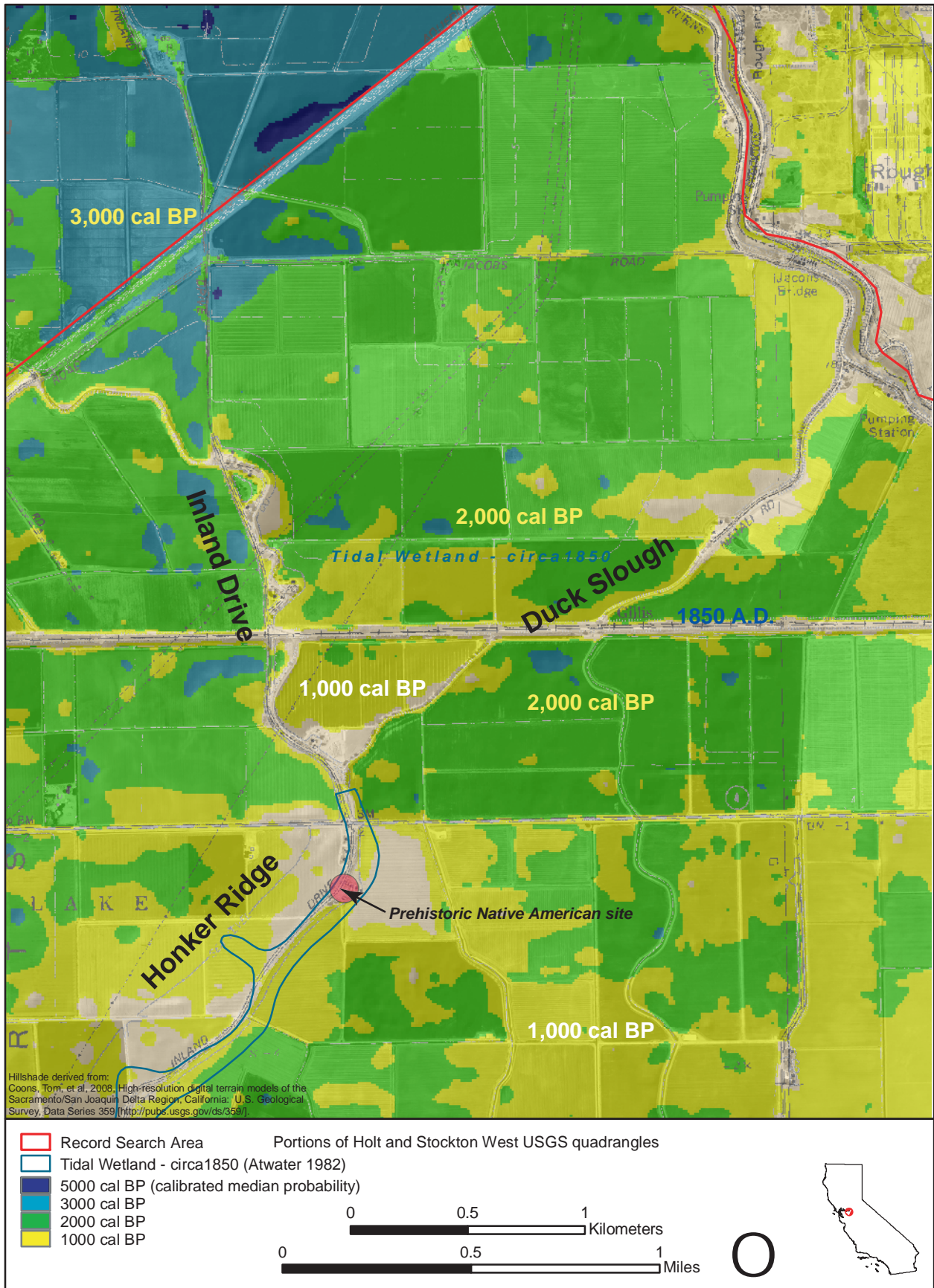


Figure 9. Detailed View Showing the Timing and Extent of Late Holocene Sea-Level Rise In and Around Duck Slough. Based on age and elevation of dates from tidal marshes and high-resolution digital terrain model (Coons et al. 2008).



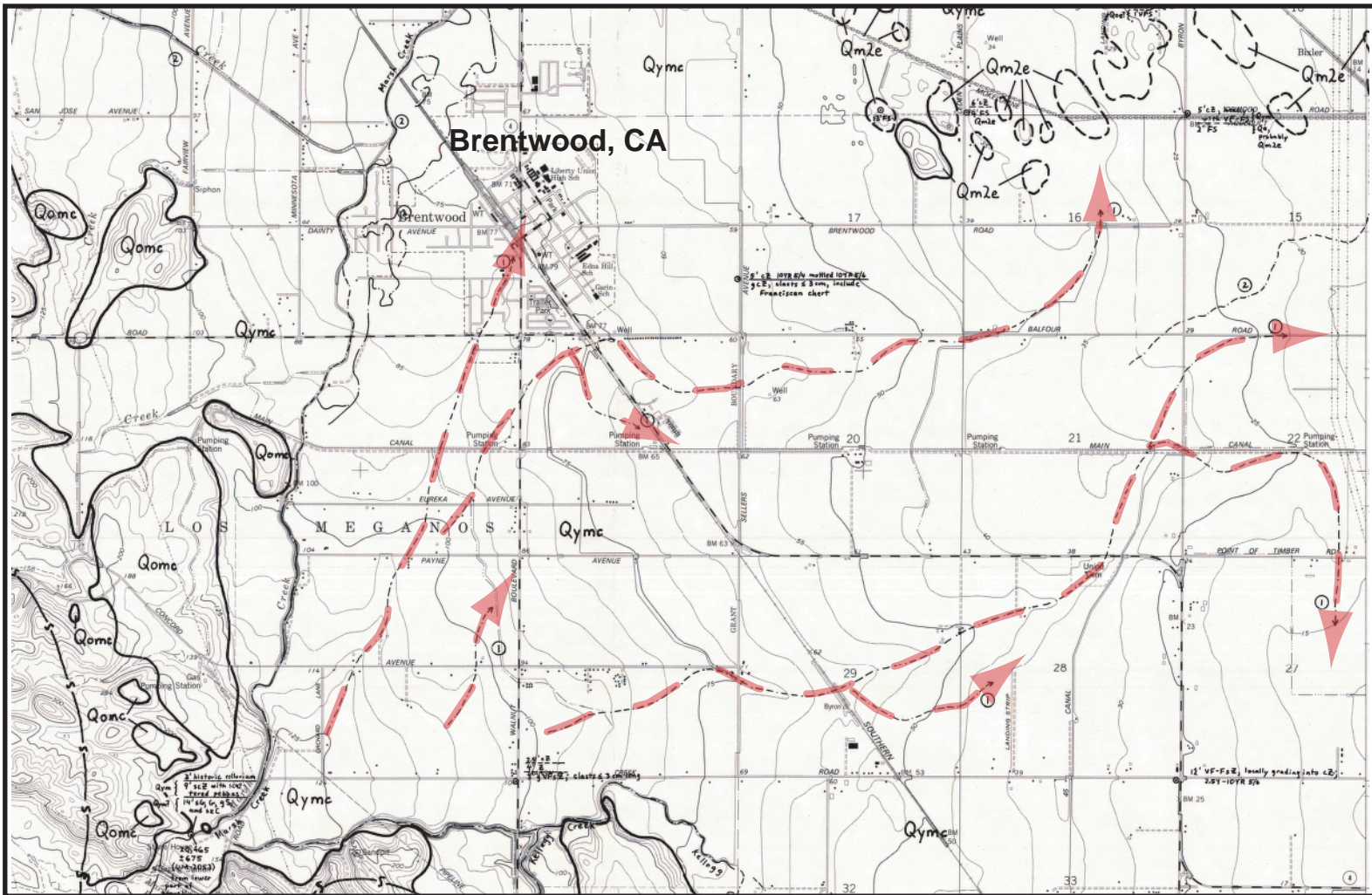


Figure 10. Multiple natural levee ridges formed by prehistoric channels of Marsh Creek on alluvial fan near Brentwood in eastern Contra Costa County. Levee ridges mapped as black dotted lines by USGS geologist Brian Atwater (1982); red dotted lines added for emphasis.



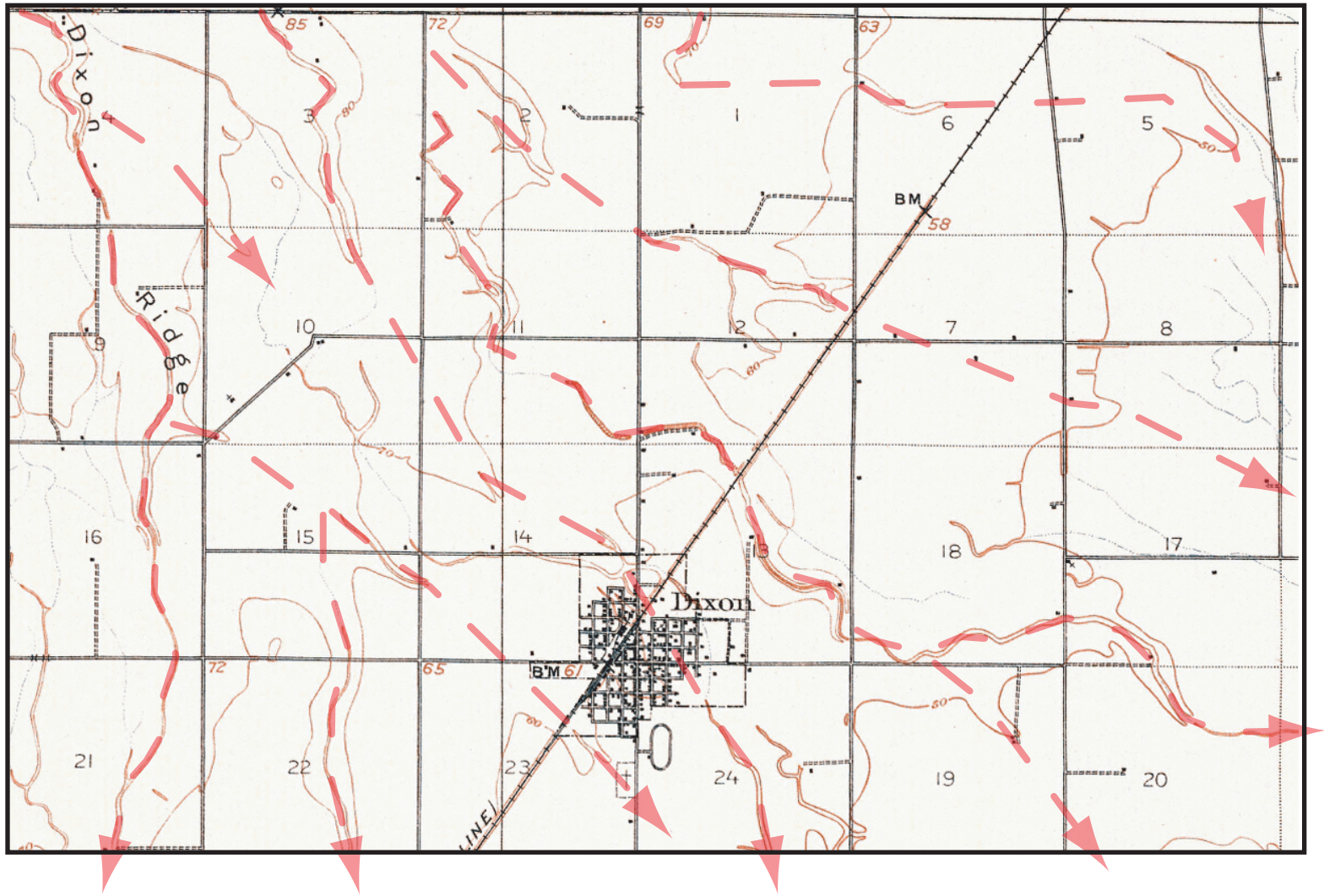


Figure 11. Multiple natural levee ridges (e.g., Dixon Ridge) formed by prehistoric channels of Putah Creek on alluvial fan near Dixon in Solano County; red dotted lines added for emphasis. Base map is the 1908 USGS Vacaville, CA 30-minute Quadrangle.