

**GIS Resources - Updated on 2/10/2024**

Listing prepared by Dr. Donna Miranda-Begay, CA Tribal GIS - CEO

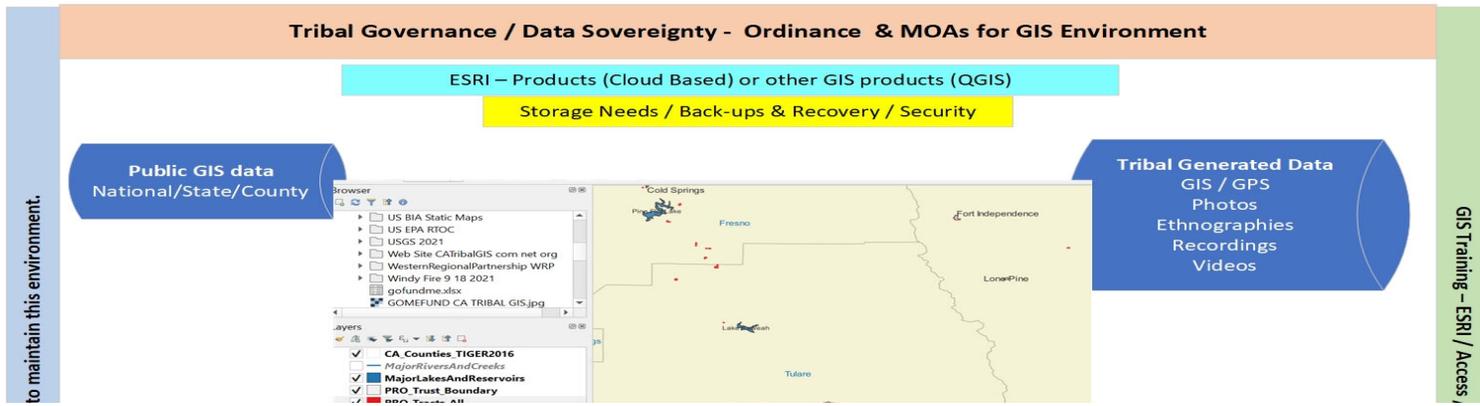
[www.catribalgis.org](http://www.catribalgis.org)

**\*\* Newly added links since last posting of 1/24/2024**

<b>Introduction to GIS for CA Native American Tribes</b>		
<b>Tribal GIS Day 2018 – hosted by CA Dept. of Water Resources</b>		
<b>Tribal Cultural Resources and Mapping Presentations – Youtube Recordings</b>	<b>Cultural Resources Mapping - Tubatulabal Journey</b> Dr. Donna Miranda-Begay discusses her journey in developing culturally sensitive resource map for her Tubatulabal Tribe (non-federally recognized). Video 28 minutes long.	<a href="https://www.youtube.com/watch?v=CRsImt-f0Ik&amp;list=PLeod6x87Tu6dfM2v5qL7xGKF9p68oBzup&amp;index=">https://www.youtube.com/watch?v=CRsImt-f0Ik&amp;list=PLeod6x87Tu6dfM2v5qL7xGKF9p68oBzup&amp;index=</a>
<b>What Federal and State entities can do to improve communication in working with CA Tribes, regarding cultural resource protection for entities land change projects.</b>	Introduction to Melodi McAdams - works for United Auburn Indian Community - Preservation Office. She talks about the existing 2018 Federal and State of California cultural resources related processes and how she works with these process to help protect nearby cultural sensitive areas. NEPA and CQEA - National Environmental Protection Act and California Quality Environmental Act are also discussed. Her presentation starts at the 10 min 10 seconds mark of the youtube video - 37 minutes long.	<a href="https://www.youtube.com/watch?v=W2kDcrdoEOg&amp;list=PLeod6x87Tu6dfM2v5qL7xGKF9p68oBzup&amp;index=1">https://www.youtube.com/watch?v=W2kDcrdoEOg&amp;list=PLeod6x87Tu6dfM2v5qL7xGKF9p68oBzup&amp;index=1</a>
<b>** CGIA - California Geographical Information Association - Equity Series 1: Tribal Conversation about GIS</b>	United Auburn Indian Community – Tribal Preservation web site: CA Native American Tribes and Tribal organization discuss their GIS uses and needs.	<a href="https://auburnrancheria.com/programs-services/tribal-preservation/">https://auburnrancheria.com/programs-services/tribal-preservation/</a> <a href="https://cgia.org/2023/12/tribal-gis-conversation-recording-and-slides/">https://cgia.org/2023/12/tribal-gis-conversation-recording-and-slides/</a>
<b>Federal and California State GIS sites to assist Tribes</b>		
<b>California State – Native American Heritage Commission</b>	Native American Heritage Commission (NAHC) as the primary government agency responsible for identifying and cataloging Native American cultural resources.	<a href="https://nahc.ca.gov/">https://nahc.ca.gov/</a>
<b>California State – Native American Heritage Commission – Digital Atlas</b>	The Atlas consists of five main parts: The Atlas Map, the Cultural Portals, the Tribal Atlas Pages, the Natural Resource Atlas Pages, and the Regional Timelines.	<a href="https://cnra.maps.arcgis.com/apps/View/index.html?appid=03512d83d12b4c3389281e3a0c25a78f&amp;extent=-130.0858,31.7873,-109.6622,42.6447">https://cnra.maps.arcgis.com/apps/View/index.html?appid=03512d83d12b4c3389281e3a0c25a78f&amp;extent=-130.0858,31.7873,-109.6622,42.6447</a>
<b>California State Parks - California Historic Records Information Systems (CHRIS)</b>	Regional Mapping data - need to register with CA State Parks and be listed on the NAHC contact list to gain access.	<a href="https://ohp.parks.ca.gov/?page_id=1068">https://ohp.parks.ca.gov/?page_id=1068</a>
<b>U.S. BIA – Pacific Regions GIS mapping data</b>	June 29, 2021 - California Based - Reservations, Rancherias, Colonies, Villages, and Allotments – GIS data.	<a href="https://www.bia.gov/sites/default/files/dup/assets/bia/pacreg/PRO_Indian_Lands.gdb_.zip">https://www.bia.gov/sites/default/files/dup/assets/bia/pacreg/PRO_Indian_Lands.gdb_.zip</a>
<b>U.S. Bureau of Land Management – Land Deed search tool</b>	Search US BLM Grant Land Office (GLO) Records	<a href="https://glorerecords.blm.gov/search/default.aspx#searchTabIndex=0&amp;searchByTypeIndex=0">https://glorerecords.blm.gov/search/default.aspx#searchTabIndex=0&amp;searchByTypeIndex=0</a>
<b>U.S. EPA Region 9 - Tribal: Pacific Southwest</b>	EPA's Pacific Southwest Region (Region 9) is committed to helping tribes strengthen their abilities to manage environmental programs in Indian Country, and to ensure that tribes have a voice in decisions that affect their land, air and water. The regional office serves 148 federally recognized tribes within Arizona, California and Nevada.	<a href="https://www.epa.gov/tribal/epa-region-9-pacific-southwest">https://www.epa.gov/tribal/epa-region-9-pacific-southwest</a>
<b>U.S. EPA Region 9 - Tribal Static Map of Federally Recognized Tribes</b>	Static Map of Federally Recognized Tribes - Tribal Land for EPA Tribal - Region 9 (Pacific)	<a href="https://www.epa.gov/tribal-pacific-sw/map-federally-recognized-tribes-epas-pacific-southwest-region-9">https://www.epa.gov/tribal-pacific-sw/map-federally-recognized-tribes-epas-pacific-southwest-region-9</a>
<b>U.S. Geographical Survey (USGS)</b>	As one of the cornerstones of the U.S. Geological Survey's (USGS) National Geospatial Program, The National Map is a collaborative effort among the USGS and other Federal, State, and local partners to improve and deliver topographic information for the Nation.	<a href="https://www.usgs.gov/programs/national-geospatial-program/national-map">https://www.usgs.gov/programs/national-geospatial-program/national-map</a>
<b>U.S. Geographical Survey (USGS) - National Map</b>	The National Map - Advance Viewer (interactive)	<a href="https://apps.nationalmap.gov/viewer/">https://apps.nationalmap.gov/viewer/</a>
<b>U.S. Census Tribal Map Portal</b>	Options to view for Federal Recognized Tribes by state and by location - population, jobs, housing, economic development and education statistic.	<a href="https://www.census.gov/tribal/">https://www.census.gov/tribal/</a>
<b>U.S. Library of Congress - U.S. Indian Land Cessions map</b>	U.S. Library of Congress - Indian land cessions in the United States: California Area – static map and research: California 1   Library of Congress (loc.gov)	<a href="https://www.loc.gov/resource/q3701em.gct00002/?sp=7&amp;r=-0.37,0.504,1.803,0.642,0">https://www.loc.gov/resource/q3701em.gct00002/?sp=7&amp;r=-0.37,0.504,1.803,0.642,0</a>
<b>** NOAA - National Oceanic and Atmospheric Administration</b>	NOAA Shoreline Data Explore - interactive map that shows shorelines from 1822 to current year 2024.	<a href="https://nsde.ngs.noaa.gov/">https://nsde.ngs.noaa.gov/</a>
<b>Many CA Counties offer GIS portal / data downloads - example:</b>	Santa Clara County – Silicon Valley. GIS Data Portal. Requires a log-in account. Free sign-up / requires an email account for verification and as a user login name.	<a href="https://www.sccgov.org/available-gis-map-data-geographic-information-services-county-of-santa-clara">Available GIS Map Data - Geographic Information Services - County of Santa Clara (sccgov.org)</a>
<b>Non-Profit GIS - Tribal related</b>		

<b>California Geographical Information Association (CGIA)</b>	California Geographic Information Association (CGIA) is a non-profit, statewide association formed in 1994 to facilitate coordination, collaboration, and advocacy for California's Geographic Information System (GIS) community. There are two Tribal Board positions for this organization.	<a href="http://www.cgia.org">www.cgia.org</a>
<b>Western Regional Partnership</b>	11/20/2023 - CGIA Equity Series: CA Tribal Use of GIS / 1 hour - 3 Tribal Presenters  WRP provides a proactive and collaborative framework for senior-policy level Federal, State and Tribal leadership to identify common goals and emerging issues in the states of Arizona, California, Colorado, Nevada, New Mexico and Utah and to develop solutions that support WRP Partners and protect natural and cultural resources, while promoting sustainability, homeland security and military readiness	<a href="https://youtu.be/ZrveGqo1w5A?si=oo9OYA9yJicrhCy">https://youtu.be/ZrveGqo1w5A?si=oo9OYA9yJicrhCy</a>  <a href="https://wrpinfo.org/">https://wrpinfo.org/</a>
<b>Tribal Information Sharing and Tribal Videos - Reclaiming our Lands, Indigenous Ecological Knowledge, and CA Tribal Leaders who promoted traditional knowledge.</b>		
<b>Tubatulabals of Kern Valley – Land Return news story – Sept 2023</b>	HOMECOMING: Tubatulabal Tribe and Community Celebrate Return to Ancestral Lands (turnto23.com)	<a href="https://www.turnto23.com/news/in-your-neighborhood/lake-isabella-kernville-wofford-heights/homecoming-tubatulabal-tribe-and-community-celebrate-return-to-ancestral-lands">https://www.turnto23.com/news/in-your-neighborhood/lake-isabella-kernville-wofford-heights/homecoming-tubatulabal-tribe-and-community-celebrate-return-to-ancestral-lands</a>
<b>Indigenous Tribes get Bolsa Chica Mesa land return, a first for Orange County - 11/21/2023</b>	Return of ancestral lands	<a href="https://www.ocregister.com/2023/11/21/indigenous-tribes-get-bolsa-chica-mesa-land-return-a-first-for-orange-county/amp/">https://www.ocregister.com/2023/11/21/indigenous-tribes-get-bolsa-chica-mesa-land-return-a-first-for-orange-county/amp/</a>
<b>Race in America - Land back Movement: Reclaiming Tribal Land - 11/17/2022</b>	Pit River Tribe - Discussion of culture and ties to the land.	<a href="https://www.youtube.com/watch?v=P0Tydbl4Zmg">https://www.youtube.com/watch?v=P0Tydbl4Zmg</a>
<b>Visit Native California Spotlight: Pergish Carlson and the Yurok Tribe - 3/3/2023</b>	Pergish Carlson talks about the meaning of the Klamath River for him and his Tribe	<a href="https://www.youtube.com/watch?v=vX-oKvEdc08">https://www.youtube.com/watch?v=vX-oKvEdc08</a>
<b>Visit California - Native</b>	Visit California - Native web site. The Visit Native California video series shines a light on the state's vibrant tribal communities.	<a href="https://www.visitcalifornia.com/native/">https://www.visitcalifornia.com/native/</a>
<b>City of Oakland to return 5 acres of land to Native Tribe - East Bay Ohlone</b>	News Story - 9/9/2022: East Bay Ohlone to receive return of 5 acres of Oakland City Land  News Article 9/9/2022 - The site known as Sequoia Point will be co-stewarded by the Sogorea Te' Land Trust, a women-run nonprofit, and the Confederated Villages of Lisjan, an East Bay Ohlone tribe, through the creation of a cultural conservation easement.	<a href="https://www.youtube.com/watch?v=nkWDoX-v8M">https://www.youtube.com/watch?v=nkWDoX-v8M</a>  <a href="https://www.kqed.org/news/11925121/we-have-a-vision-east-bay-ohlone-tribe-looks-to-future-as-oakland-announces-landback-plan#:~:text=On%20Thursday%2C%20the%20City%20of%20Oakland%20announced%20plans,as%20part%20of%20the%20Indigenous%20Land%20Back%20movement.">https://www.kqed.org/news/11925121/we-have-a-vision-east-bay-ohlone-tribe-looks-to-future-as-oakland-announces-landback-plan#:~:text=On%20Thursday%2C%20the%20City%20of%20Oakland%20announced%20plans,as%20part%20of%20the%20Indigenous%20Land%20Back%20movement.</a>
<b>California Tribes Will Manage, Protect State Northern Coastal Areas</b>	Five California tribes will reclaim their right to manage coastal land significant to their history under a first-in-the-nation program backed with \$3.6 million in state money. The tribes will rely on their traditional knowledge to protect more than 200 miles of coastline in the state, as climate change and human activity have impacted the vast area.	<a href="https://www.nbcbayarea.com/news/california/california-tribes-state-coastal-areas/3025165/">https://www.nbcbayarea.com/news/california/california-tribes-state-coastal-areas/3025165/</a>
<b>California's Chumash tribe push to conserve their ancestral coastline 1/11/2023</b>	CBS Morning News - Chumash Tribe working on the return of ancestral coastline  CA State Library Webinar - 12/5/2023 (1 hr 27 min): Discussion about the environmental legacy of settler colonialism in California, including its impact on current land and water management policy, through the lens of Indigenous practices and Perspectives.  Melinda Adams: Indigenous Cultural Fire: Environment and the Legacy of Settler Colonialism in California  Dr. Brittani Orona: Transforming Our Rivers: Settler Colonialism and Water Infrastructure in Northwestern California	<a href="https://www.youtube.com/watch?v=iQ4obwaBoA8">https://www.youtube.com/watch?v=iQ4obwaBoA8</a>
<b>California's Environmental Heritage: Indigenous Wisdom, Historical Impact, and Future Sustainability - 12/5/2023</b>	Rose Ramirez: The Effects of Contemporary Colonial Mentality on White Sage  First ever U.S. Indigenous Marine Stewardship Area declared in California.	<a href="https://www.youtube.com/watch?v=M8MmBJop1s">https://www.youtube.com/watch?v=M8MmBJop1s</a>  <a href="https://news.mongabay.com/2024/01/first-ever-u-s-indigenous-marine-stewardship-area-declared-in-california/">https://news.mongabay.com/2024/01/first-ever-u-s-indigenous-marine-stewardship-area-declared-in-california/</a>
<b>** Mongabay Series: Indigenous Peoples and Conservation, Oceans- 1/29/2024</b>	Article by Liz Kimbrough	<a href="https://news.mongabay.com/2024/01/first-ever-u-s-indigenous-marine-stewardship-area-declared-in-california/">https://news.mongabay.com/2024/01/first-ever-u-s-indigenous-marine-stewardship-area-declared-in-california/</a>
<b>Climate Change - Tribal Input / Focus</b>		

<p><b>California Energy - 4th Climate Change Assessment Report: Summary Report from Tribal and Indigenous Communities within California</b></p>	<p>The inaugural Tribal and Indigenous Communities Report showcases tribes' innovative strategies and actions to address climate change. The report defines key climate impacts at the nexus of tribal lands, histories, and current conditions, describes stressors that amplify climate impacts within tribal communities, and proposes overall recommendations for future Assessment(s).</p>	<p><a href="https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-010_TribalCommunitySummary_ADA.pdf">https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-010_TribalCommunitySummary_ADA.pdf</a></p>
<p><b>California Water Commission - Potential State Strategies for Protecting Communities and Fish and Wildlife in the Event of Drought</b></p>	<p>Water Resilience - The Draft White Paper presented to the Commission at the November 15, 2023, meeting. Page 7 - Tribes and Drought.</p>	<p><a href="https://cwc.ca.gov/-/media/CWC-Website/Files/Documents/2023/11_November/November2023_Item_12_Attach_1_FinalDraftWhitePaper_Final.pdf">https://cwc.ca.gov/-/media/CWC-Website/Files/Documents/2023/11_November/November2023_Item_12_Attach_1_FinalDraftWhitePaper_Final.pdf</a></p>
<p><b>U.S. National Climate Change Report - Tribal Focus Chapter</b></p>	<p>Climate change continues to negatively affect the livelihoods, health, and cultural practices of Indigenous Peoples, as well as the ecological resilience of their territories. Self-determination is key to implementing effective resilience strategies that meet the needs of Indigenous communities. Indigenous Peoples are leading climate adaptation and mitigation actions guided by Indigenous Knowledge and values.</p>	<p><a href="https://nca2023.globalchange.gov/chapter/16/">https://nca2023.globalchange.gov/chapter/16/</a></p>
<p><b>U.S. Climate Change Report Assessment - Tribal Toolkit</b></p>	<p>Tribal Nations - Climate Change Tool Kit</p>	<p><a href="https://toolkit.climate.gov/topics/tribal-nations">https://toolkit.climate.gov/topics/tribal-nations</a></p>
<p><b>Funding Opportunities / Ideas</b></p>		
<p><b>Grant Received for Tubatulabals of Kern Valley and other CA Native American Tribes</b></p>	<p>California Tribes to Advance Native Food Sovereignty and Local Food Systems   First Nations Development Institute</p>	<p><a href="https://www.firstnations.org/news/california-tribes-to-advance-native-food-sovereignty-and-local-food-systems/">https://www.firstnations.org/news/california-tribes-to-advance-native-food-sovereignty-and-local-food-systems/</a></p>
<p><b>California 30x30 Initiative</b></p>	<p>California 30x30 Initiative – Return of Land to CA Native American Tribes. Tribal Nature-Based Solution Grant Program Guidelines.</p>	<p><a href="https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Tribal-Affairs/Tribal-Nature-Based-Solutions-Program/Final_TNBS_Grant_Guidelines_July_31_2023.pdf">https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Tribal-Affairs/Tribal-Nature-Based-Solutions-Program/Final_TNBS_Grant_Guidelines_July_31_2023.pdf</a></p>
<p><b>Legal Geospatial Laws and Best Practices</b></p>		
<p><b>Federal Geographical Data Committee: Extract of “Geospatial Data Act of 2018”</b></p>	<p>Federal Geographical Data Committee: Extract of “Geospatial Data Act of 2018” (GDA), (P.L. 115-254), H.R. 302, Subtitle F, Sections 751 – 759: Microsoft Word - Geospatial Data Act of 2018.docx (fgdc.gov)</p>	<p><a href="https://www.fgdc.gov/gda/geospatial-data-act-of-2018.pdf">https://www.fgdc.gov/gda/geospatial-data-act-of-2018.pdf</a></p>
<p><b>AB 2022 (Ramos, 2022) - Removal of derogatory geographical names in California.</b></p>	<p>On September 23, 2022, Governor Gavin Newsom signed Assembly Bill 2022 (Ramos), requiring the term to be removed from all geographic features and place names in the state, commencing on January 1, 2025. Removing Derogatory Word from California Geographic Features and Places</p>	<p><a href="https://resources.ca.gov/Newsroom/Page-Content/News-List/Removing-Derogatory-Word-from-California-Geographic-Features-and-Places#:~:text=On%20September%202022%2C%20Governor%20Gavin%20Newsom%20signed,in%20the%20state%2C%20commencing%20on%20January%202025.">https://resources.ca.gov/Newsroom/Page-Content/News-List/Removing-Derogatory-Word-from-California-Geographic-Features-and-Places#:~:text=On%20September%202022%2C%20Governor%20Gavin%20Newsom%20signed,in%20the%20state%2C%20commencing%20on%20January%202025.</a></p>
<p><b>AB 2022 (Ramos, 2022) - the approved Assembly Bill 2022</b></p>	<p>AB 2022 - the bill approved in 2022</p>	<p><a href="https://legiscan.com/CA/text/AB2022/id/2607903">https://legiscan.com/CA/text/AB2022/id/2607903</a></p>
<p><b>CA Advisory Committee on Geographic Names (CACGN)</b></p>	<p>CA Advisory Committee on Geographic Names (CACGN) - web site CaCGN Meeting Schedule How to propose a geographical name change: How To (ca.gov)</p>	<p><a href="https://cacgn.ca.gov/">https://cacgn.ca.gov/</a> <a href="https://cacgn.ca.gov/meetings">https://cacgn.ca.gov/meetings</a> <a href="https://cacgn.ca.gov/how-to/">https://cacgn.ca.gov/how-to/</a></p>
<p><b>Proposed Data Sovereignty Model for Tribal GIS</b></p>		





**Proposed Tribal GIS sovereignty and database model components:**

- 1) **Tribal Governance** – Data sovereignty; ordinance and memorandum of agreement for GIS environment. What, Why, Who, and How – the build, data use access, public vs confidential, maintenance, training, and resource support.
- 2) **Maintenance** – documentation of the environment to ensure not just one individual with support knowledge
- 3) **Training** – on-going funding and support to keep GIS environment up-to-date, secured, and back-up and recovery works properly.
- 4) **Database major four areas:** Public GIS data, Existing Confidential Data from public entity, Tribal Generated Data that can be later shared, and Tribal Generated data that is sensitive and/or confidential.

Important to note: Cloud based and on-site / local applications and data should all have a good back-up and recovery strategy, procedure, and documentation

**Open Source GIS software**

QGIS Open-Source GIS Mapping Tool

Download product link: Welcome to the QGIS project!

<https://qgis.org/en/site/>

QGIS - A Gentle Introduction to GIS

QGIS Documentation Download

[https://docs.qgis.org/3.28/en/docs/gentle\\_gis\\_introduction/](https://docs.qgis.org/3.28/en/docs/gentle_gis_introduction/)