

GIS Resources - Updated on 02/03/2025

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

[CA Emergency Apps and WebBased - info as of 9/11/2024](#)

[CA 30 by 30 Land Back to Tribes - info as of 9/11/2024](#)

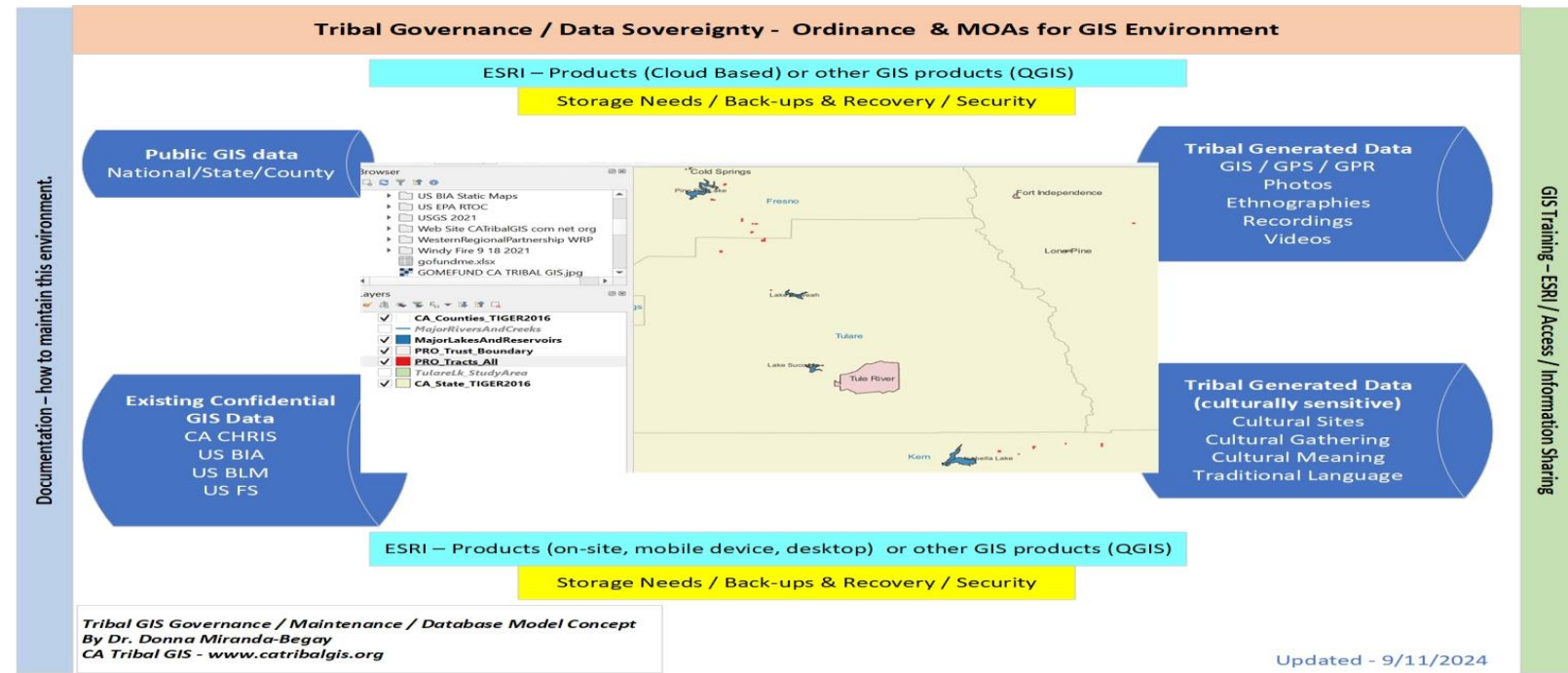
** Newly added links since last posting of 02/03/2025

Introduction to GIS for CA Native American Tribes		
Tribal GIS Day 2018 – hosted by CA Dept. of Water Resources		
Tribal Cultural Resources and Mapping Presentations – Youtube Recordings	Cultural Resources Mapping - Tubatulabal Journey Dr. Donna Miranda-Begay discusses her journey in developing culturally sensitive resource map for her Tubatulabal Tribe (non-federally recognized). Video 28 minutes long.	https://www.youtube.com/watch?v=CRslmt-f0lk&list=PLeod6x87Tu6dfM2y5qL7xGKF9p68oBzup&index=2
What Federal and State entities can do to improve communication in working with CA Tribes, regarding cultural resource protection for entities land change projects.	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. United Auburn Indian Community – Tribal Preservation web site:	https://www.youtube.com/watch?v=W2kDcrdoEQg&list=PLeod6x87Tu6dfM2y5qL7xGKF9p68oBzup&index=1 https://auburnrancheria.com/programs-services/tribal-preservation/
CGIA - California Geographical Information Association - Equity Series 1: Tribal Conversation about GIS	CA Native American Tribes and Tribal organization discuss their GIS uses and needs.	https://cgia.org/2023/12/tribal-gis-conversation-recording-and-slides/
Federal and California State GIS sites to assist Tribes		
California State – Native American Heritage Commission	Native American Heritage Commission (NAHC) as the primary government agency responsible for identifying and cataloging Native American cultural resources.	https://nahc.ca.gov/
California State – Native American Heritage Commission – Digital Atlas	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.	https://cnra.maps.arcgis.com/apps/View/index.html?appid=03512d83d12b4c3389281e3a0c25a78f&extent=-130.0858,31.7873,-109.6622,42.6447
California State Parks - California Historic Records Information Systems (CHRIS)	Regional Mapping data - need to register with CA State Parks and be listed on the NAHC contact list to gain access.	https://ohp.parks.ca.gov/?page_id=1068
California State Parks - GIS Data	California State Parks generates eight GIS datasets for public use. These datasets include: Park Boundaries, Routes, Buildings, Structures, Day Use Areas, Camping Areas, Parking Areas, and Park Entry Points. These datasets are available in two versions: Spatial files for download Live feature services for export and download or integration in mapping applications For any questions about the data provided or the allowed uses please contact the California State Parks Enterprises GIS Program at: geodata@parks.ca.gov .	https://www.parks.ca.gov/?page_id=29682
NOAA - National Oceanic and Atmospheric Administration	NOAA Shoreline Data Explore - interactive map that shows shorelines from 1822 to current year 2024.	https://nsde.ngs.noaa.gov/
** Open Topography - Data / Mapping Downloads	OpenTopography - Interactive Mapping / Search - Data & Mapping downloads. OpenTopography is based at the San Diego Supercomputer Center at the University of California San Diego and is operated in collaboration with colleagues in the School of Earth and Space Exploration at Arizona State University and the EarthScope Consortium (formerly UNAVCO). Core operational support for OpenTopography comes from the Division of Earth Sciences at the National Science Foundation.	https://opentopography.org/news/2025_LA_fire_response
U.S. BIA – Pacific Regions GIS mapping data	June 29, 2021 - California Based - Reservations, Rancherias, Colonies, Villages, and Allotments – GIS data.	https://www.bia.gov/sites/default/files/dup/assets/bia/pacreg/PRO_Indian_Lands.gdb_.zip
** U.S. BIA - GEO Spatial OPEN Portal	U.S. Bureau of Indian Affairs - Open Portal GIS Data	https://biamaps.geoplatform.gov/BIA-Opendata/
U.S. Bureau of Land Management – Land Deed search tool	Search US BLM Grant Land Office (GLO) Records	https://glorerecords.blm.gov/search/default.aspx#searchTabIndex=0&searchByTabIndex=0
U.S. EPA Region 9 - Tribal: Pacific Southwest	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.	https://www.epa.gov/tribal/epa-region-9-pacific-southwest
U.S. EPA Region 9 - Tribal Static Map of Federally Recognized Tribes	Static Map of Federally Recognized Tribes - Tribal Land for EPA Tribal - Region 9 (Pacific)	https://www.epa.gov/tribal-pacific-sw/map-federally-recognized-tribes-epas-pacific-southwest-region-9
U.S. EPA Environmental Screening Mapping System	EJScreen: Environmental Justice Screening and Mapping Tool. EJScreen is EPA's environmental justice mapping and screening tool that provides EPA with a nationally consistent dataset and approach for combining environmental and socioeconomic indicators.	https://ejscreen.epa.gov/mapper/
** U.S. Fish and Wildlife - National Wetlands Inventory Map	The U.S. Fish and Wildlife Service is the principal federal agency tasked with providing information to the public on the extent and status of the nation's wetland and deepwater habitats, as well as changes to these habitats over time.	https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/

	U.S. Geographical Survey (USGS)	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.	https://www.usgs.gov/programs/national-geospatial-program/national-map
	U.S. Geographical Survey (USGS) - National Map	The National Map - Advance Viewer (interactive)	https://apps.nationalmap.gov/viewer/
**	U.S. Geographical Survey (USGS) - LIDAR Explorer	USGUS - 3DEP LidarExplorer Interactive Mapping System	https://apps.nationalmap.gov/lidar-explorer/#/
	U.S. Census Tribal Map Portal	Options to view for Federal Recognized Tribes by state and by location - population, jobs, housing, economic development and education statistics	https://www.census.gov/tribal/
	U.S. Library of Congress - U.S. Indian Land Cessions map	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)	https://www.loc.gov/resource/g3701em.gct00002/?sp=7&r=-0.37,0.504,1.803,0.642,0
	Many CA Counties offer GIS portal / data downloads - example:	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.	Available GIS Map Data - Geographic Information Services - County of Santa Clara (sccgov.org)
Non-Profit GIS - Tribal related			
	California Geographical Information Association (CGIA)	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.	www.cgia.org
		11/20/2023 - CGIA Equity Series: CA Tribal Use of GIS / 1 hour - 3 Tribal Presenters	https://youtu.be/ZrveGqo1w5A?si=oo9QYA9yJicurhCy
	Climate Science Alliance	The mission of the Climate Science Alliance is to safeguard natural and human communities in the face of a changing climate..	https://www.climatesciencealliance.org/
	Collaborative of Native Nations for Climate Transformation and Stewardship (CNNCTS)	The Collaborative of Native Nations for Climate Transformation and Stewardship (CNNCTS) was formally launched in 2023, building upon many years of partnerships, to support a model of Indigenous-led land stewardship for climate adaptation and resilience.	https://www.cnncts.org/
	Native American Land Conservancy	Dedicated to aligning environmental protection with Indigenous well-being. We delicately balance the intrinsic value of sacred lands with sustainable practices, serving as stewards of a legacy that integrates cultural heritage with the natural landscape. Your support is vital in shaping a future where cultural richness thrives alongside the natural world. Every contribution becomes part of an enduring legacy, preserving the sacred for generations.	https://www.nativeamericanland.org/
**	Sierra Funds (Tribal led Non-profit)	The Sierra Fund's mission is to elevate Indigenous place-based wisdom, leadership, and guardianship to achieve reparative justice and resilient Sierra Nevada cultural ecologies and communities for future generations.	https://sierrafund.org/
	Western Regional Partnership	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.	https://wrpinfo.org/
	Women In GIS	Women in GIS (WiGIS) is an international, professional, and social advocacy organization for those who identify as women and their allies. WiGIS is a consortium of those working in geospatial fields facing common professional barriers. The aim of WiGIS is to provide community support and professional resources in our field.	https://www.womeningis.org/
Tribal Information Sharing and Tribal Videos - Reclaiming our Lands, Indigenous Ecological Knowledge, and CA Tribal Leaders who promoted traditional knowledge.			
	Tubatulabals of Kern Valley – Land Return news story – Sept 2023	HOMEComing: Tubatulabal Tribe and Community Celebrate Return to Ancestral Lands (turnto23.com)	https://www.turnto23.com/news/in-your-neighborhood/lake-isabella-kernville-wofford-heights/homecoming-tubatulabal-tribe-and-community-celebrate-return-to-ancestral-lands
	Indigenous Tribes get Bolsa Chica Mesa land return, a first for Orange County - 11/21/2023	Return of ancestral lands	https://www.ocregister.com/2023/11/21/indigenous-tribes-get-bolsa-chica-mesa-land-return-a-first-for-orange-county/amp/
	Race in America - Land back Movement: Reclaiming Tribal Land - 11/17/2022	Pit River Tribe - Discussion of culture and ties to the land.	https://www.youtube.com/watch?v=P0Tydbl4Zmg
	Visit Native California Spotlight: Pergish Carlson and the Yurok Tribe - 3/3/2023	Pergish Carlson talks about the meaning of the Klamath River for him and his Tribe	https://www.youtube.com/watch?v=vX-oKvEdc08
	Visit California - Native	Visit California - Native web site. The Visit Native California video series shines a light on the state's vibrant tribal communities.	https://www.visitcalifornia.com/native/
	City of Oakland to return 5 acres of land to Native Tribe - East Bay Ohlone	News Story - 9/9/2022: East Bay Ohlone to receive return of 5 acres of Oakland City Land	https://www.youtube.com/watch?v=nkWDoxv8M
		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.	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.
	California Tribes Will Manage, Protect State Northern Coastal Areas	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.	https://www.nbcbayarea.com/news/california/california-tribes-state-coastal-areas/3025165/

<https://www.cnncts.org/>

California's Chumash tribe push to conserve their ancestral coastline 1/11/2023	CBS Morning News - Chumash Tribe working on the return of ancestral coastal area. https://www.youtube.com/watch?v=iQ4obwaBoA8
	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
California's Environmental Heritage: Indigenous Wisdom, Historical Impact, and Future Sustainability - 12/5/2023	Rose Ramirez: The Effects of Contemporary Colonial Mentality on White Sage First ever U.S. Indigenous Marine Stewardship Area declared in California. Article by Liz Kimbrough https://www.youtube.com/watch?v=M8MmBJopv1s https://news.mongabay.com/2024/01/first-ever-u-s-indigenous-marine-stewardship-area-declared-in-california/
Mongabay Series: Indigenous Peoples and Conservation, Oceans- 1/29/2024	
Climate Change - Tribal Input / Focus	
California Energy - 4th Climate Change Assessment Report: Summary Report from Tribal and Indigenous Communities within California	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). https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-010_TribalCommunitySummary_ADA.pdf
California Water Commission - Potential State Strategies for Protecting Communities and Fish and Wildlife in the Event of Drought	Water Resilience - The Draft White Paper presented to the Commission at the November 15, 2023, meeting. Page 7 - Tribes and Drought. https://cwc.ca.gov/-/media/CWC-Website/Files/Documents/2023/11_November/November2023_Item_12_Attach_1_FinalDraftWhitePaper_Final.pdf
U.S. National Climate Change Report - Tribal Focus Chapter	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. https://nca2023.globalchange.gov/chapter/16/
** U.S. Climate Change Report Assessment - Southwest	This is a summary report from the National Climate Change Alliance Southwest Tribal workshop / meeting - research conducted by US Global Change Research Program. https://nca2023.globalchange.gov/downloads/NCA5_Ch28_Southwest.pdf
U.S. Climate Change Report Assessment - Tribal Toolkit	Tribal Nations - Climate Change Tool Kit https://toolkit.climate.gov/topics/tribal-nations
Funding Opportunities / Ideas	
Grant Received for Tubatulabals of Kern Valley and other CA Native American Tribes	California Tribes to Advance Native Food Sovereignty and Local Food Systems First Nations Development Institute https://www.firstnations.org/news/california-tribes-to-advance-native-food-sovereignty-and-local-food-systems/
California 30x30 Initiative	California 30x30 Initiative – Return of Land to CA Native American Tribes. Tribal Nature-Based Solution Grant Program Guidelines. https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Tribal-Affairs/Tribal-Nature-Based-Solutions-Program/Final_TNBS_Grant_Guidelines_July_31_2023.pdf
Legal Geospatial Laws and Best Practices	
Federal Geographical Data Committee: Extract of “Geospatial Data Act of 2018”	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) https://www.fgdc.gov/gda/geospatial-data-act-of-2018.pdf
AB 2022 (Ramos, 2022) - Removal of derogatory geographical names in California.	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 https://resources.ca.gov/Newsroom/Page-Content/News-List/Removing-Derogatory-Word-from-California-Geographic-Features-and-Places#:~:text=On%20September%2023%2C%202022%2C%20Governor%20Gavin%20Newsom%20signed,in%20the%20state%2C%20commencing%20on%20January%201%2C%202025.
AB 2022 (Ramos, 2022) - the approved Assembly Bill 2022	AB 2022 - the bill approved in 2022 https://legiscan.com/CA/text/AB2022/id/2607903
CA Advisory Committee on Geographic Names (CACGN)	CA Advisory Committee on Geographic Names (CACGN) - web site https://cacgn.ca.gov/ CaCGN Meeting Schedule https://cacgn.ca.gov/meetings How to propose a geographical name change: How To (ca.gov) https://cacgn.ca.gov/how-to/



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/
GIS software (licensing required)		
ESRI - Mapping Software	Requires Licensing to create GIS mapping, workflow, projects, storymaps, etc..	https://www.esri.com/
ESRI - Tribal Nations Information	ESRI Tribal Nations	https://www.esri.com/en-us/industries/tribal/overview
ESRI - Tribal Nations Email Contacts	Ben Knott (BKnott@esri.com) or Dolores Buljevic (DBuljevic@esri.com).	