

CGIA Conversation Series on GIS & Equity: Session 1- Tribal GIS

Presenter: Dr. Donna Miranda-Begay, CEO – CA Tribal GIS
CGIA – Board Member

Tribal Affiliation: Tübatulabal, Paiute, Tule River Yokut, and Dine'

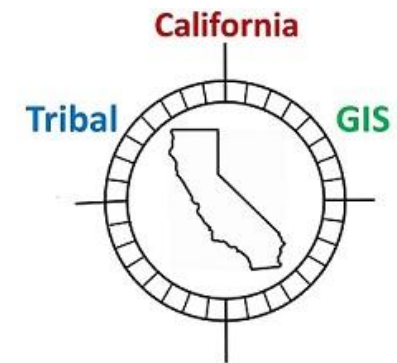
CA Tribal GIS – new non-profit: Focus on assisting California Native American Tribes (Both Federally and Non-Federally recognized Tribes) with GIS knowledge build to help with Cultural and Environmental Protection and Land Management.



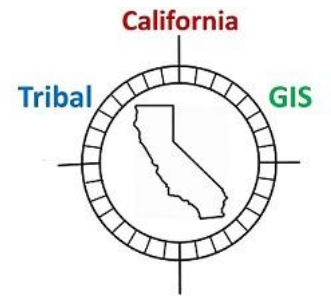
This presentation provides CA Tribal GIS initial GIS work with CA Native American Tribes.

Four major topic areas will be discussed:

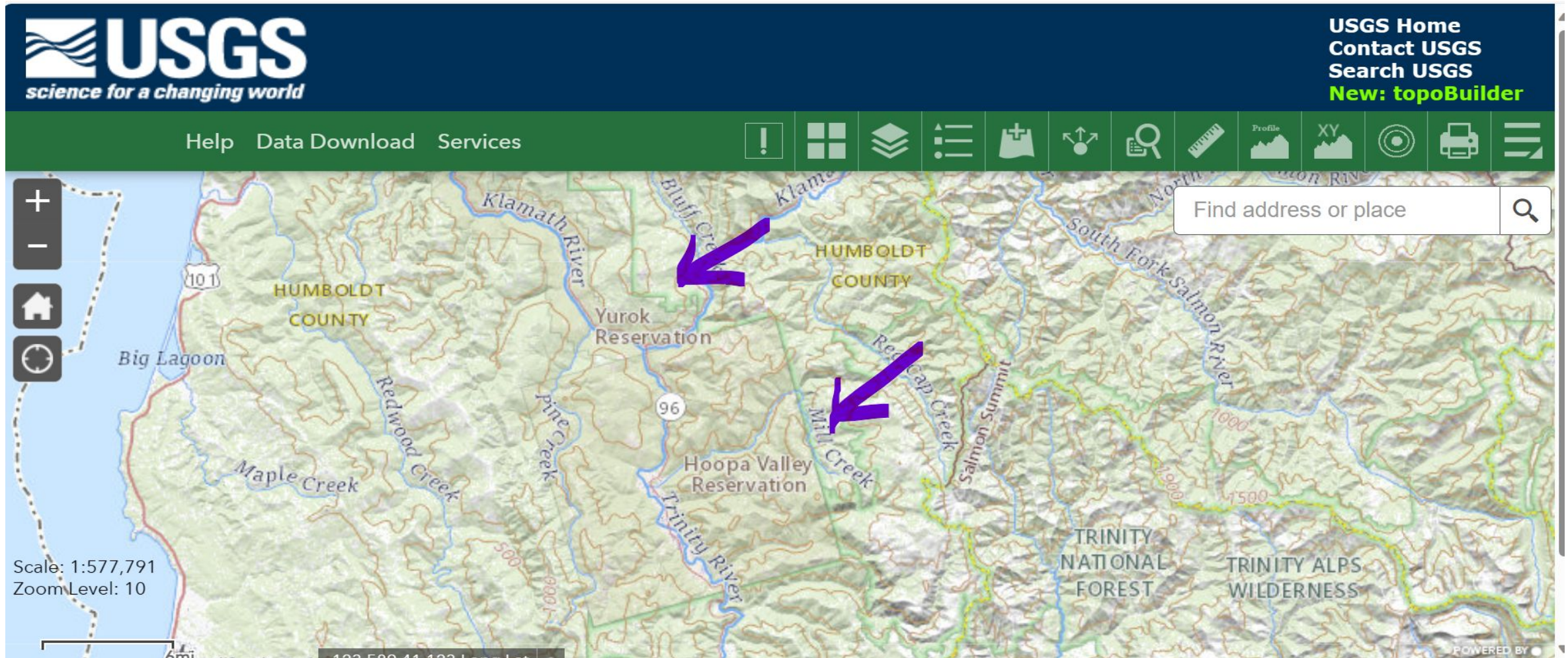
- 1) Use of Tribal land representation in maps,
- 2) Tribal Data Sovereignty,
- 3) Access to GIS resources for California Tribes, and
- 4) One Tribal GIS Case Example

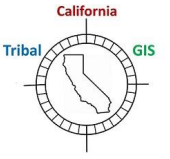


Use of Tribal land representation in maps



Federal Government use of Tribal Land include federally recognized tribal lands (i.e., reservations, rancherias, colonies, villages, reserves, communities, pueblos).





Use of Tribal land representation in maps

A good equity related policy for California State

California State Government may include both federally recognized tribal lands and non-federally recognized tribal lands (CA Tribes listed with Native American Heritage Commission).

Important to note: CA Government Code § 65092: Public notice to **California Native American Indian Tribes** - Includes California Native American tribe that is on the contact list maintained by the Native American Heritage Commission in the definition of “person” to whom notice of public hearings shall be sent by local governments.

Source: [State Laws and Codes – California Native American Heritage Commission](#)

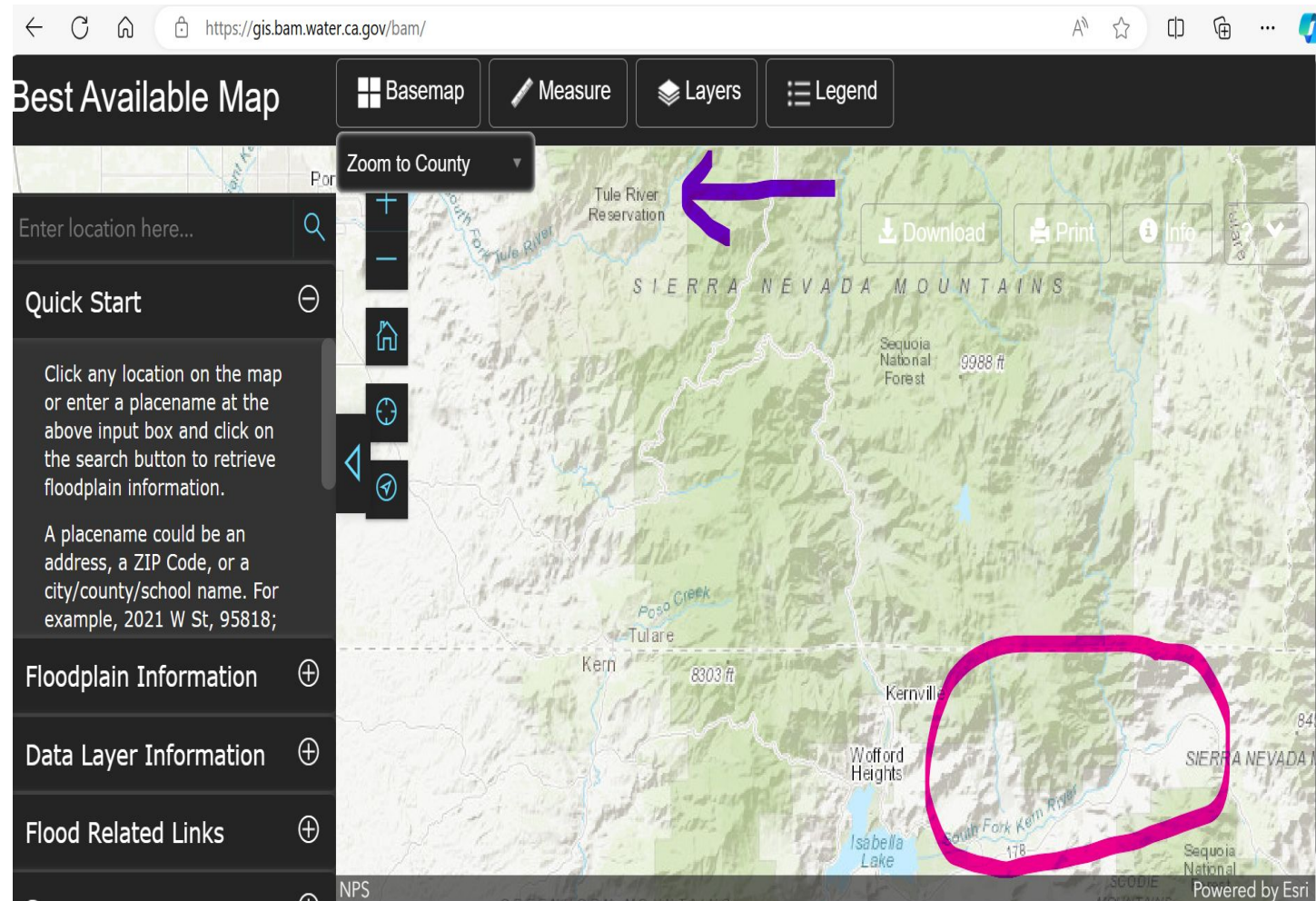
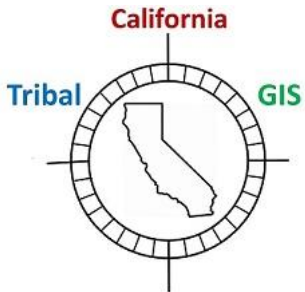
Use of Tribal land representation in maps

An Equity Related Issue

Allotment Lands may or may not be included on public entity maps. CA Tribal GIS organization recommends that allotment lands be included in CA public maps for improved equity in planning, cultural resource preservation, and funding.

CA Flood Risk Assessment Map

Includes Reservations and Rancherias, but no allotment lands.

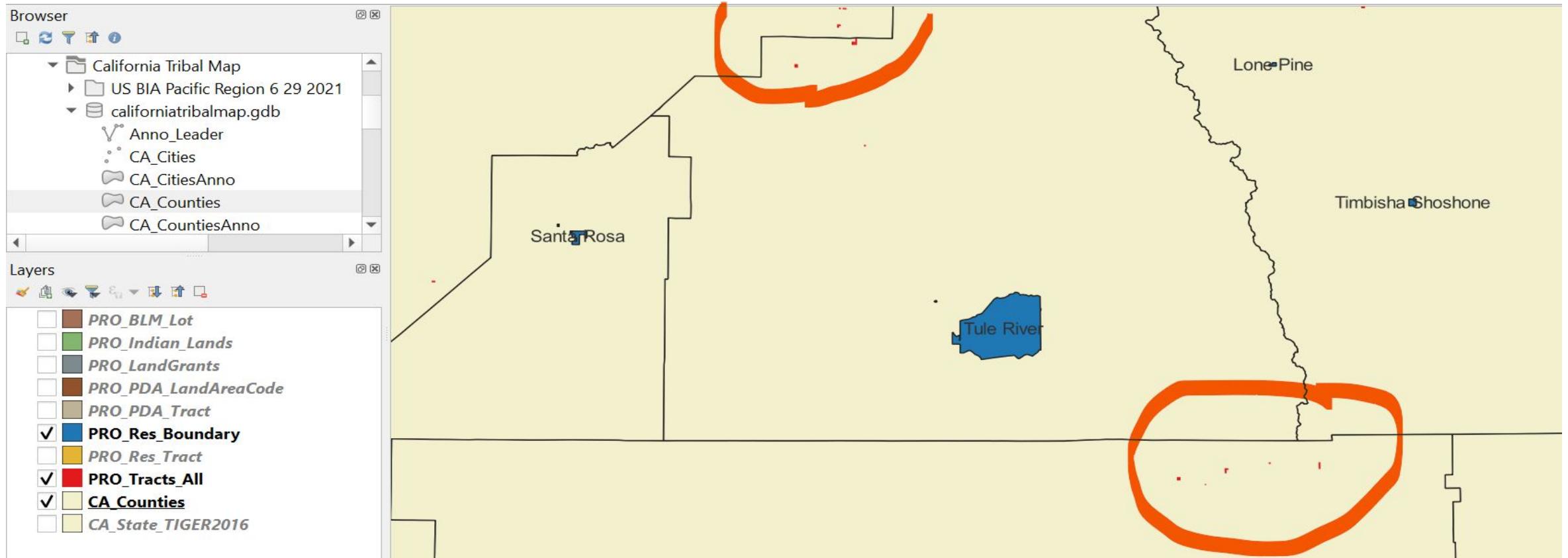


Note: The use of ESRI on-line mapping – no allotment lands included.

U.S. Bureau of Indian Affairs – Pacific Region (includes California) GIS Map and 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



PRO_Res_Boundary layer includes Tribal Names

PRO_Tracts_All includes allotments / public domain lands (circled "red" dots)

Tribal Data Sovereignty

Proposed Tribal GIS sovereignty and database model

Tribal Governance / Data Sovereignty - Ordinance & MOAs for GIS Environment

ESRI – Products (Cloud Based) or other GIS products (QGIS)

Storage Needs / Back-ups & Recovery / Security

Public GIS data
National/State/County

Browser

- US BIA Static Maps
- US EPA RTOC
- USGS 2021
- Web Site CATribalGIS.com net.org
- WesternRegionalPartnership WRP
- Windy Fire 9 18 2021
- gofundme.xlsx
- GOMEFUND CA TRIBAL GIS.jpg

Layers

- ☒ CA_Counties_TIGER2016
- ☐ MajorRiversAndCreeks
- ☒ MajorLakesAndReservoirs
- ☒ PRO_Trust_Boundary
- ☒ PRO_Tracts_All
- ☐ TulareLk_StudyArea
- ☒ CA_State_TIGER2016

Tribal Generated Data
GIS / GPS
Photos
Ethnographies
Recordings
Videos

Tribal Generated Data
(culturally sensitive)
Cultural Sites
Cultural Gathering
Cultural Meaning
Traditional Language

Existing Confidential
GIS Data
CHRIS
US BIA
US BLM

ESRI – Products (on-site, mobile device, desktop) or other GIS products (QGIS)

Storage Needs / Back-ups & Recovery / Security

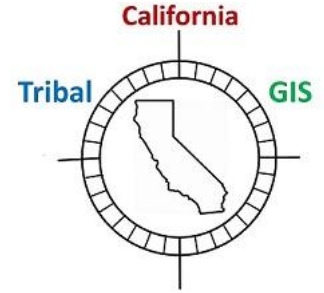
Documentation – how to maintain this environment.

GIS Training – ESRI / Access / Information Sharing

Tribal GIS Governance / Maintenance / Database Model Concept
By Dr. Donna Miranda-Begay
CA Tribal GIS - www.catribalgis.org

11/27/2023

Proposed Tribal GIS sovereignty and database model components:



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.

Access to GIS resources for California Tribes

CA Tribal GIS web site – download CA Tribal GIS Resource Document located at this web link site: www.catribalgis.org

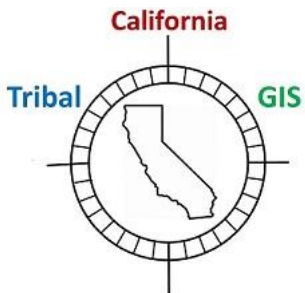
(Scroll to bottom of web page for download – spreadsheet or PDF format)

This website also has two forms – 1) CA Native American Tribe needing any assistance with GIS and 2) If you can provide support or resources to assist CA Native American Tribes with GIS needs.

Existing CA Native American GIS needs: A need for GPR services, Introduction to GIS, current LiDAR of newly acquired Pathways 30 by 30 conservation lands, and CA Native American Cultural Monitoring training.

CA TRIBAL GIS - INFORMATION SHARING / DOWNLOADS

CA Tribal GIS research GIS use and needs of CA Native American Tribes. To provide updates for these downloads - email DonnaBegay@yahoo.com



Information Sharing - CA Tribal GIS 11 28
2023 DMiranda-Begay (xlsx)

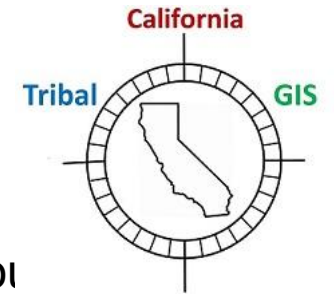
DOWNLOAD

Information Sharing - CA Tribal GIS 11 28
2023 DMiranda-Begay (pdf)

DOWNLOAD

Case Example of GIS Use by CA Native American Tribe

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In March 2022, Tübatulabal Tribal cemetery expansion project required current day GPR (Ground Penetrating Radar) survey completed on existing Tribal Historic Cemetery. Also, Drone fly over was also performed. Both GPR and Drone fly over were conducted by external services. Tribal Council had arranged for these services and with support of Tribal Members and local landowner(s), a two-day gathering was planned. Tribal families held a ceremony, conducted a small reburial of funerary objects, and watched the GPR service representative. There was several unmarked grave sites, but most of the sites were within the boundaries of the historic cemetery boundary makers.



tuu-wuu (Thank you)

Dr. Donna Miranda-Begay

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Utilizing GIS to assist with protection of cultural landscape and natural resources management. Assisting CA Native American Tribes with improved GIS knowledge build.

Happy Native American Heritage Month (Nov 2023)

