



WESTERN REGIONAL PARTNERSHIP

Tribal Engagement Committee

April 2025

ENHANCING RESILIENCE TO
AVOID CASCADING DISASTER



WESTERN REGIONAL PARTNERSHIP

Today's Agenda



- **Welcome and Introductions**
- **Featured Presentation:**
 - **USGS National Cooperative Geologic Mapping Program (NCGMP)**
by Kate Ritzel, Physical Scientist, USGS, National Cooperative Geologic Mapping Program
- **Next Steps and Actions**
- **Around the Phone Updates**





Kate Ritzel

Physical Scientist
National Cooperative
Geologic Mapping Program
(NCGMP)
USGS



- **Assistant to the Senior Program Scientist for STATEMAP**
 - Provides science and partnership support to EDMAP, Great Lakes Geologic Mapping Coalition, and Earth MRI components of the National Cooperative Geologic Mapping Program (NCGMP)
 - Program Lead for NCGMP work including lands of Alaska Native Tribes, American Indian Tribes, and Alaska Native Corporations
- **Previously:**
 - Urban Forester (Co-Op IV), Forest Health Branch
 - Contractor, Land Change Science Program, USGS
 - Intern, Branch of Foreign Species, US Fish & Wildlife Service
 - Logistics Officer, United States Air Force
- **Education:**
 - Master of Science in Environmental Science, George Mason University
 - Master of Arts in Psychology, Regis University
 - BS in Environmental Science, George Mason University
 - BS, United States Air Force Academy



NCGMP

Program Overview for the Western Regional Partnership Tribal Engagement Committee

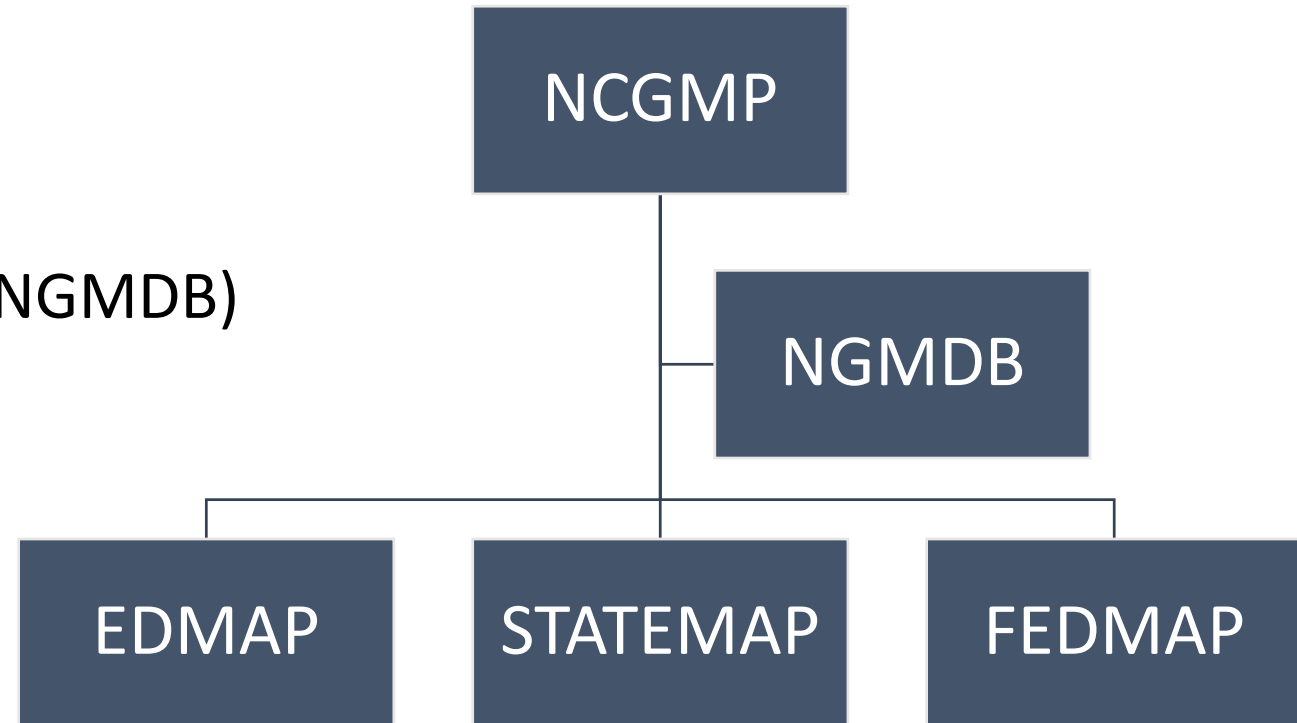
Kate Ritzel, Physical Scientist
National Cooperative Geologic Mapping Program (NCGMP)

U.S. Department of the Interior
U.S. Geological Survey

WRP Tribal Engagement Committee Meeting
25 April 2025

Overview

- USGS National Cooperative Geologic Mapping Program (NCGMP)
- EDMAP – Educational Component
- STATEMAP – State Component
- FEDMAP – Federal Component
- National Geologic Map Database (NGMDB)
- Tribal Nation Considerations
- Open Discussion



NCGMP

- The National Geologic Mapping Act of 1992 established the National Cooperative Geologic Mapping Program (NCGMP):
 - State component (STATEMAP) is a long-standing partnership with State Geologic Surveys
 - Educational Component (EDMAP) promotes the next generation of geologic mappers
 - Federal Component (FEDMAP) supports USGS geologic mapping and research
- NCGMP synchronizes federal, state, and academic efforts to support national geologic mapping priorities
- Geologic maps and related datasets applicable to land-use, natural resource assessment, groundwater systems, natural hazards, and environmental protection are made available to the public via the NGMDB

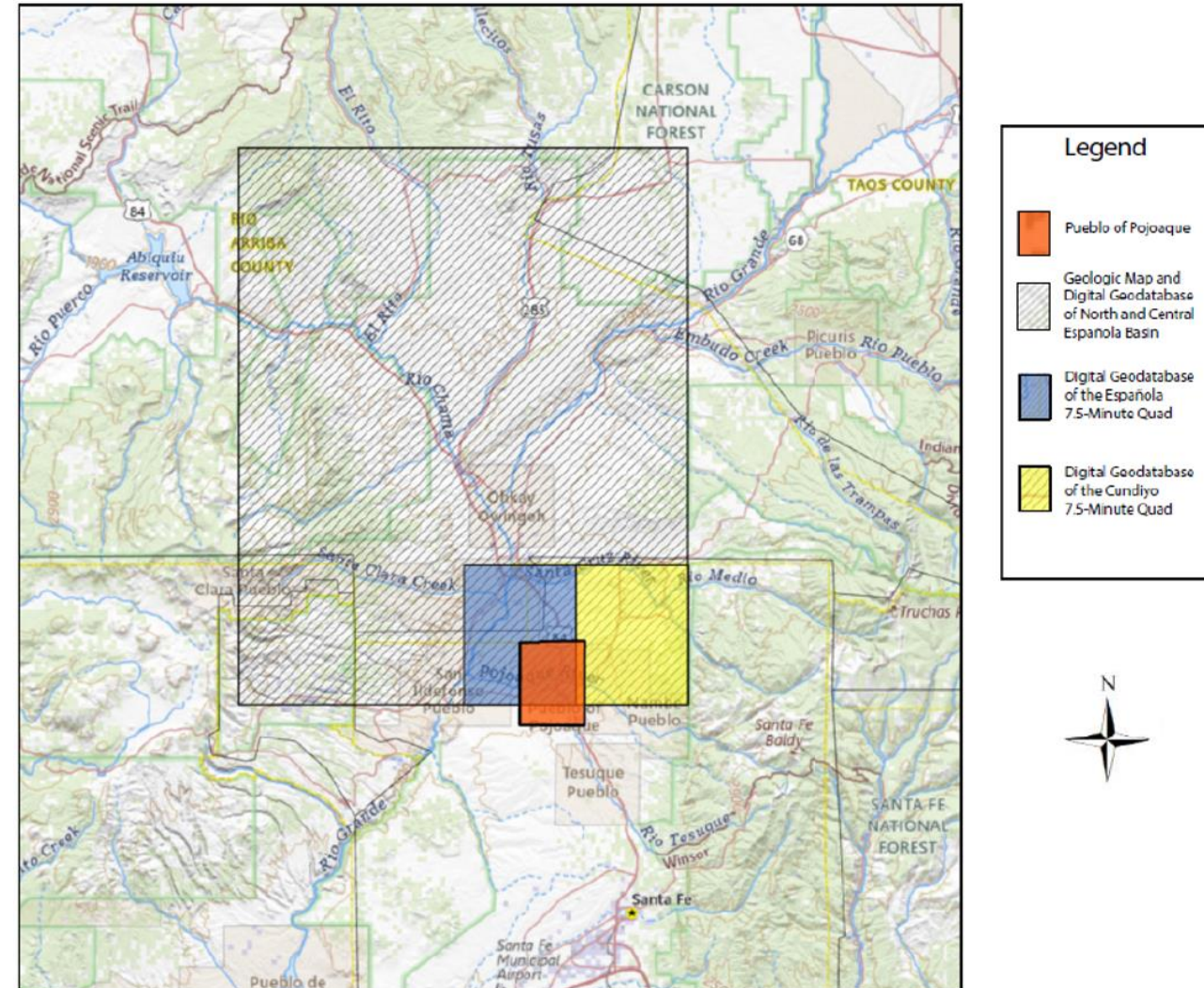


STATEMAP

- STATEMAP, the state component of the NCGMP, provides funds to State Geological Surveys with 1:1 matching funds from states
- Work is guided by State Mapping Advisory Committees, largely geologic maps and related datasets that address societal and economic issues
- Products include new geologic maps (from local- to regional-scale), GIS databases, analytical data, and derivative maps; delivered within 1-2 years
- In Fiscal Year 2024, NCGMP funded 40 State Geological Surveys at ~\$14.7M in federal funds (AZ, CA, NV, NM, and UT included)

STATEMAP Project Example

- STATEMAP projects conducted by the New Mexico Bureau of Geology & Mineral Resources
- Three projects overlap the Pojoaque Pueblo
- Discussions between the THPO and New Mexico geologists led to plans for new erosion mapping on the Pueblo



EDMAP

- EDMAP, the NCGMP educational component, helps students develop the skills to produce geologic maps and related datasets
- EDMAP supports graduate and upper-level undergraduate geoscience students – under the guidance of a “principal investigator”
 - Graduate students: \$45,000 per 12 months (\$90K for 24 months)
 - Undergraduate students: \$25,000 per 12 months (\$50K for 24 months)
- Since 1996, EDMAP has funded over 1,400 students at more than 170 universities



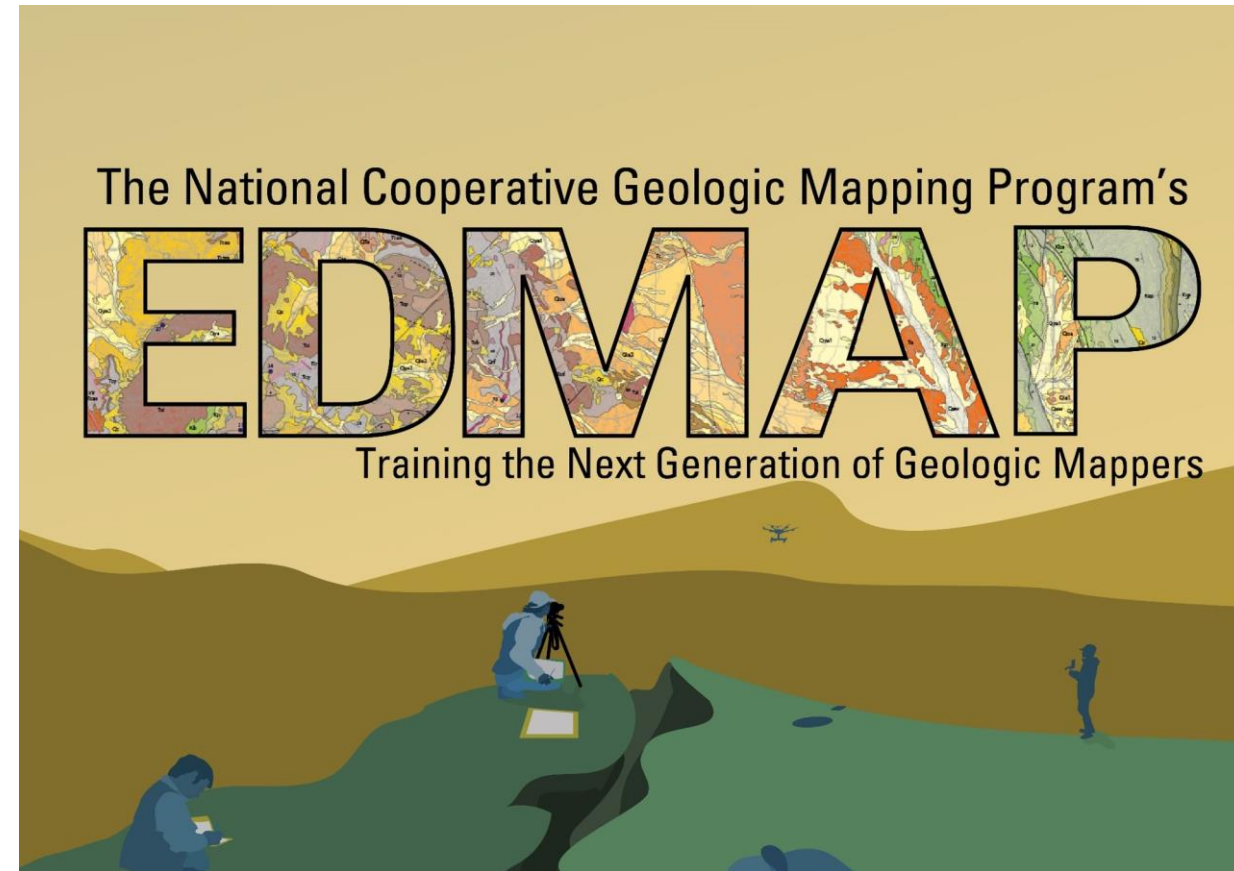
EDMAP Project Example

- University of New Mexico geologic field mapping study along the Colorado River Corridor (Arizona)
- Resulting data will provide important geologic information on the Middle Granite Gorge of the Grand Canyon
- This EDMAP project is part of larger mapping and outreach efforts supporting the Grand Canyon National Park 2024 NSF-funded grant:
 - Trail of Time 2.0: Indigenous and Place-Based Knowledges in Innovative Informal Geoscience Learning at Grand Canyon



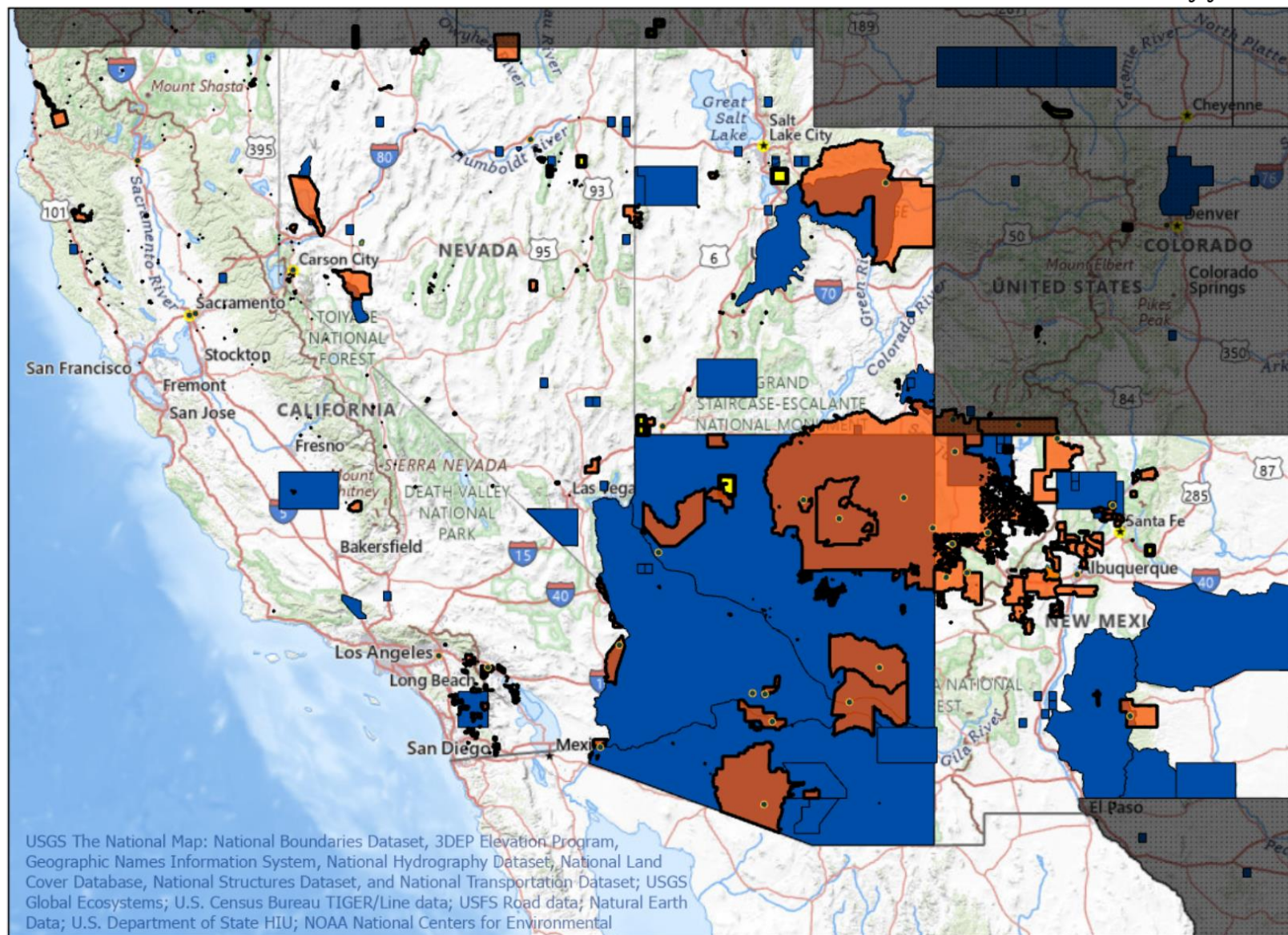
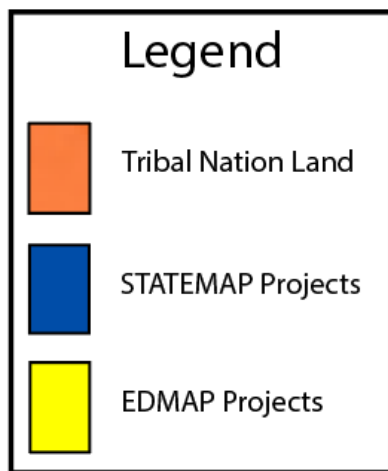
EDMAP Future Grant Opportunities

- Who & Where:
 - Graduate & undergraduate geoscience students in the U.S. and Puerto Rico
 - Public and State Institutions of Higher Education (Geoscience Departments or related Departments and Programs)
- How & When:
 - EDMAP Program Announcement released mid-September each year
 - Proposals due by mid-January
- Questions: edmap@usgs.gov



WRP Footprint

- STATEMAP and EDMAP project areas in AZ, CA, NV, NM, UT
- 20+ publications and/or GIS databases



National Geologic Map Database

- National Archive and Certified Trusted Digital Repository of standardized geologic maps and related information
- Catalog of >112,000 citations (many with viewable images), digital data, and links to geoscience maps and reports from 600+ publishers



Maps can be viewed and downloaded for free from the NGMDB map catalog, scan the QR Code here to explore →

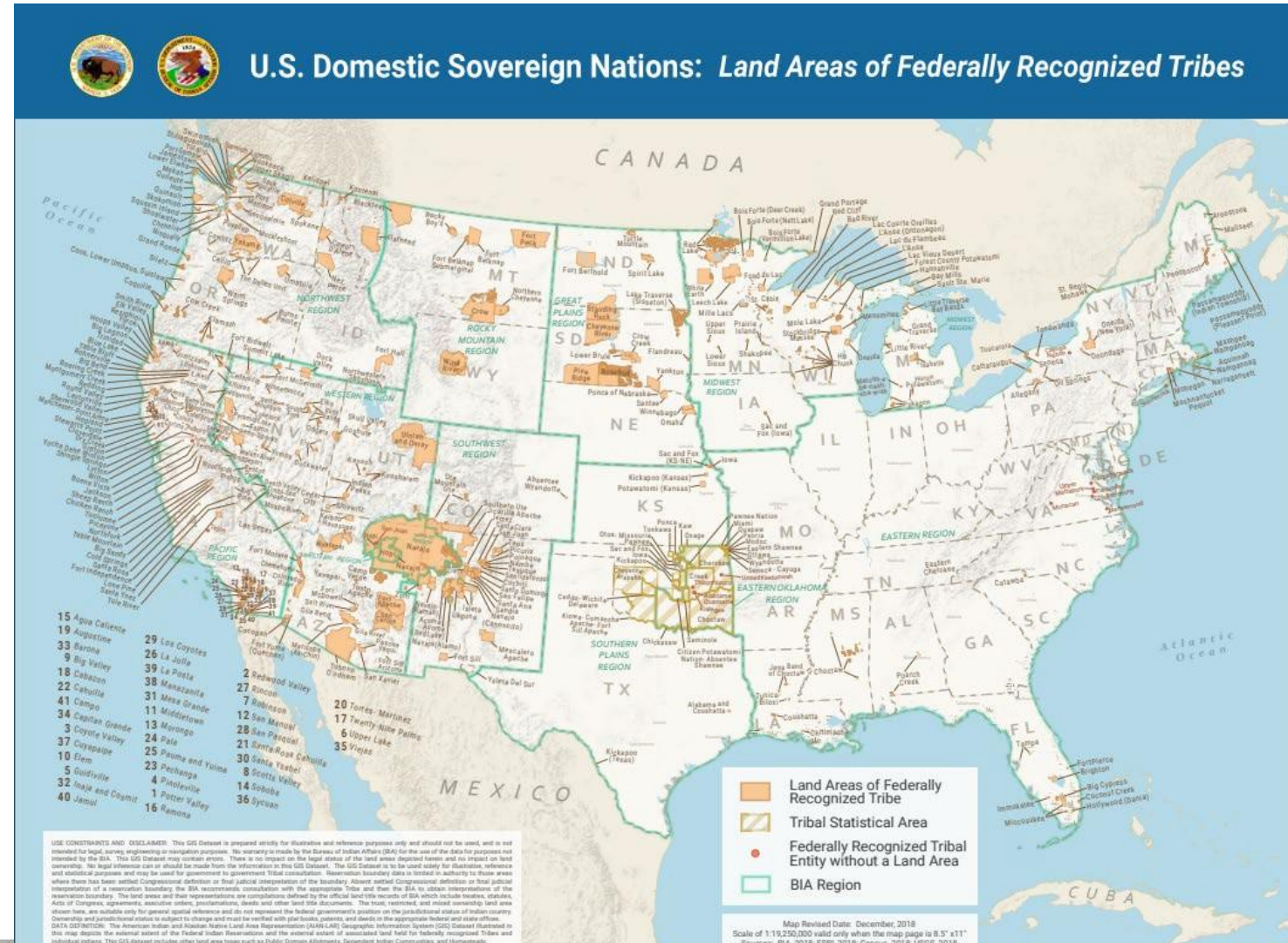


Tribal Nation Considerations

- NCGMP-funded study area on/over land of American Indian Tribes, Alaska Native Tribes, and Alaska Native Corporations (i.e., "Tribal Nations")
 - Applies even if area of Tribal Nation land is omitted/masked in final publication
- Includes all activities with Tribal Nation implications (*i.e., with a substantial direct effect on Tribes, Tribal lands, or resources*), such as:
 - New data product or publication inclusive of Tribal Nation land (e.g., GIS data)
 - Activities physically on Tribal Nation land and/or statistical areas
 - Activities occurring in areas with reserved rights and/or ceded territory

Tribal Nation Boundary Determination

- Census and BIA Tribal boundaries determine whether a project intersects with Tribal Nation land
- NCGMP focus is on Federally recognized Tribal Nations, including Statistical Areas and areas with Treaty Rights



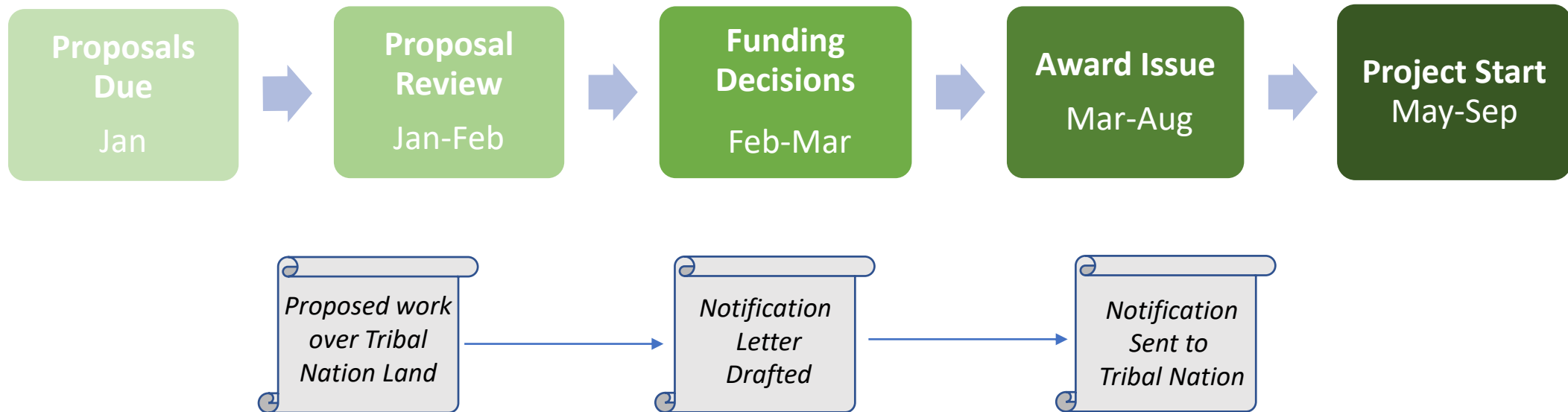
Guidance to Funded Partners

- For all study areas that include* Tribal Nation land, provide:
 - name(s) of Tribal Nation(s) within the project footprint and respective land area(s) (e.g., reservation, pueblo, village)
 - whether or not physical access to Tribal Nation land is required (or potentially desired) and the name of the respective land area
 - details on whether proposed activity on Tribal Nation land includes soil disturbance
 - details on pre-coordination, request for access, or other communication with affected Tribal Nation(s) on the proposed project
- NCGMP-funded activities inclusive of Tribal Nation land require:
 - federal, USGS nation-to-nation notification with an invitation to consult
 - adherence to all Tribal Nation training, rules, and regulations while on Tribal Nation Land

**on, over, and/or near Tribal lands (“over” includes data interpolated over Tribal lands, “near” includes any activity w/in 5 miles of Tribal lands)*

Assessment and Notification Timeline

- NCGMP cooperative agreements are funded via an annual competitive grant process per Program Announcements (*released ~ September each year*)



Example Project Area

- By-Nation notification
- May depict work proposed by single or multiple State Surveys and/or Universities
- Each product/deliverable represented by polygon, referenced in map legend and in body of the notification letter

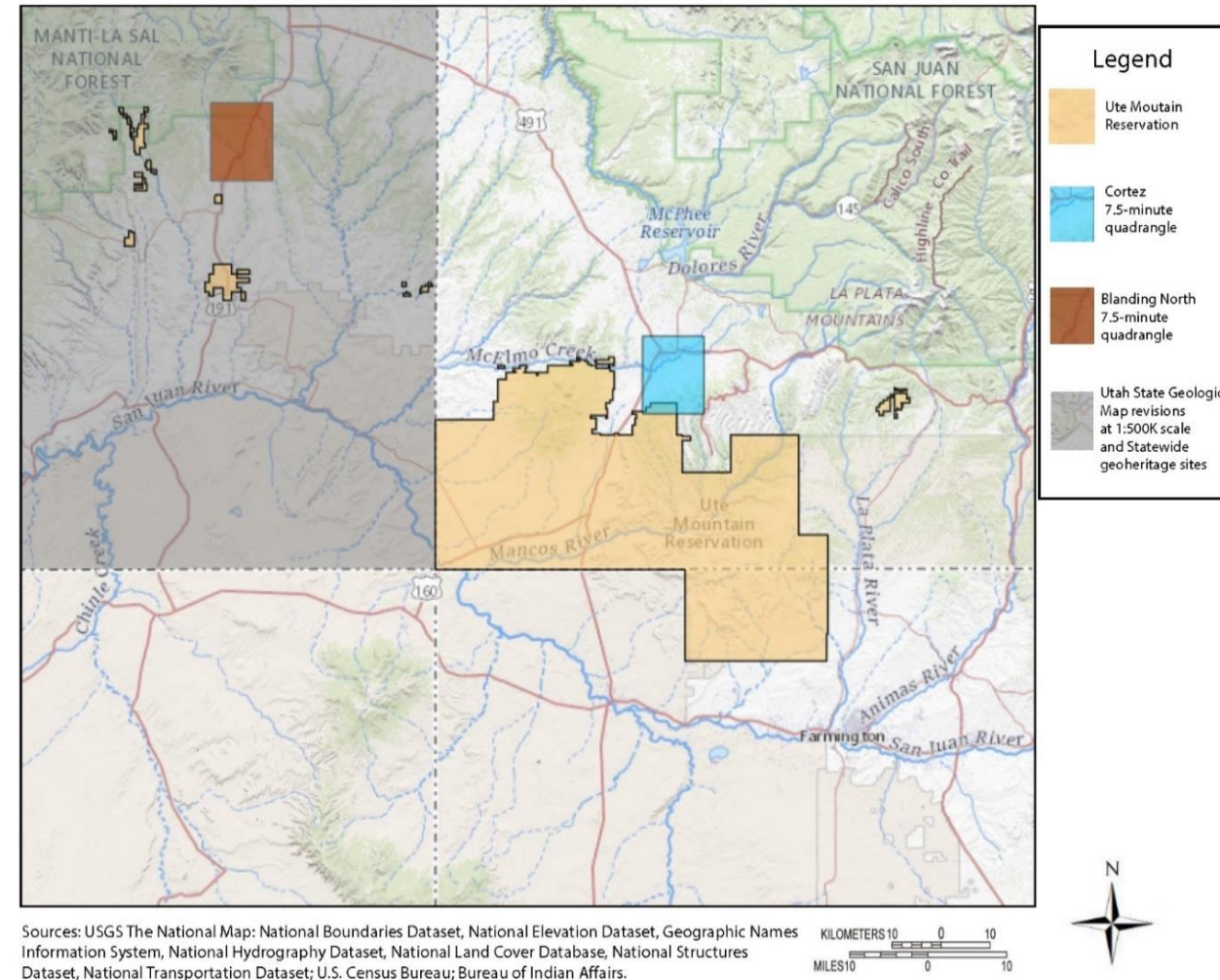


Figure 1: Geologic mapping activities conducted by Colorado Geological Survey and the Utah Geological Survey in relation to Ute Mountain Ute Tribal Nation land

Notification Letters

- Addressed to Tribal Nation leader
- Hardcopy mailed followed-up by email to addressee with courtesy copy to THPO and appropriate department head (as applicable)
- Offer for information session and invitation to consult in all letters



United States Department of the Interior

U.S. Geological Survey
Office of the Regional Director
Interior Region 8 and 10
Southwest Regional Office
2800 Cottage Way Suite W-1619
Sacramento, CA 95825-1801



The Honorable Buu Nygren
President, Navajo Nation
PO Box 7440
Window Rock, AZ 86515

September 12, 2024

Dear President Nygren:

The U.S. Geological Survey (USGS) is providing funding to the Arizona Geological Survey (AGS), the New Mexico Bureau of Geology and Mineral Resources (NMBGMR), and the Utah Geological Survey (UGS) to conduct geologic mapping projects that overlap Navajo Nation lands (Figure 1). Funding for the AGS, NMBGMR, and UGS mapping projects is provided through our STATEMAP cooperative agreement program (Attachment A). These projects include stratigraphic studies, geologic mapping, and the creation of digital geodatabases for the purpose of publishing geologic maps and related products on the type, composition, and age of geologic units in these areas along with interpretations of subsurface geology. These products will be completed and made available to the public via each State Survey's website beginning in the fall of 2025. Shortly thereafter, we will make them available in the National Cooperative Geologic Mapping Database (https://ngmdb.usgs.gov).

We offer you the opportunity to comment, ask questions, or request government consultation regarding these projects or any of the products.

Utah Stratigraphic Correlation Study: correlation charts stratigraphic, geochemical, and geochronologic relations in the Uinta Basin, the Middle Jurassic, and the Mancos Shale.

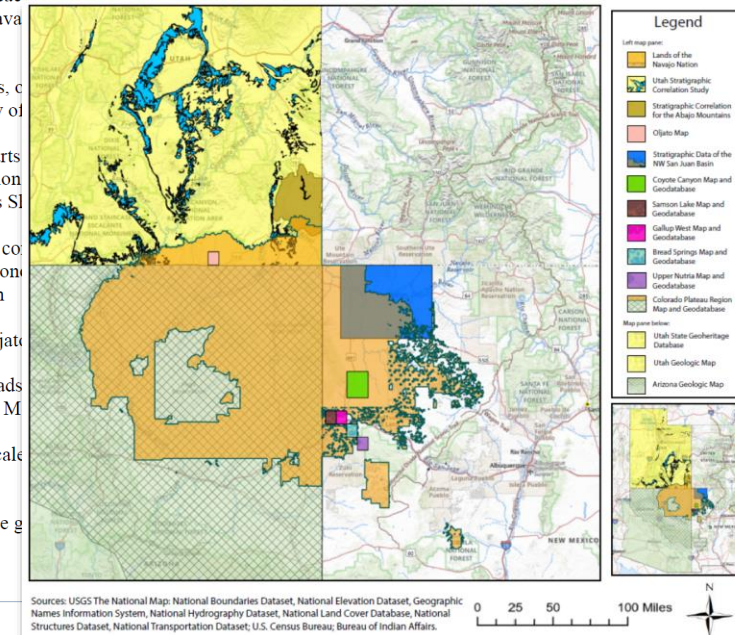
Stratigraphic Correlation for the Abajo Mountains: a correlation chart that describes stratigraphic, geochemical, and geochronologic relations in the Abajo Mountain region, Utah.

Oljato Map: a 1:24,000-scale geologic map of the Oljato area, New Mexico.

Stratigraphic Data of the NW San Juan Basin: a spreadsheet that describes stratigraphic, geochemical, and geochronologic relations in the northwestern portion of the San Juan Basin, New Mexico.

Coyote Canyon Map and Geodatabase: a 1:62,500-scale geologic map and geodatabase of the Coyote Canyon Quadrangle, New Mexico.

Samson Lake Map and Geodatabase: a 1:24,000-scale geologic map and geodatabase of the Samson Lake Quadrangle, New Mexico.



Tribal Nation Concerns

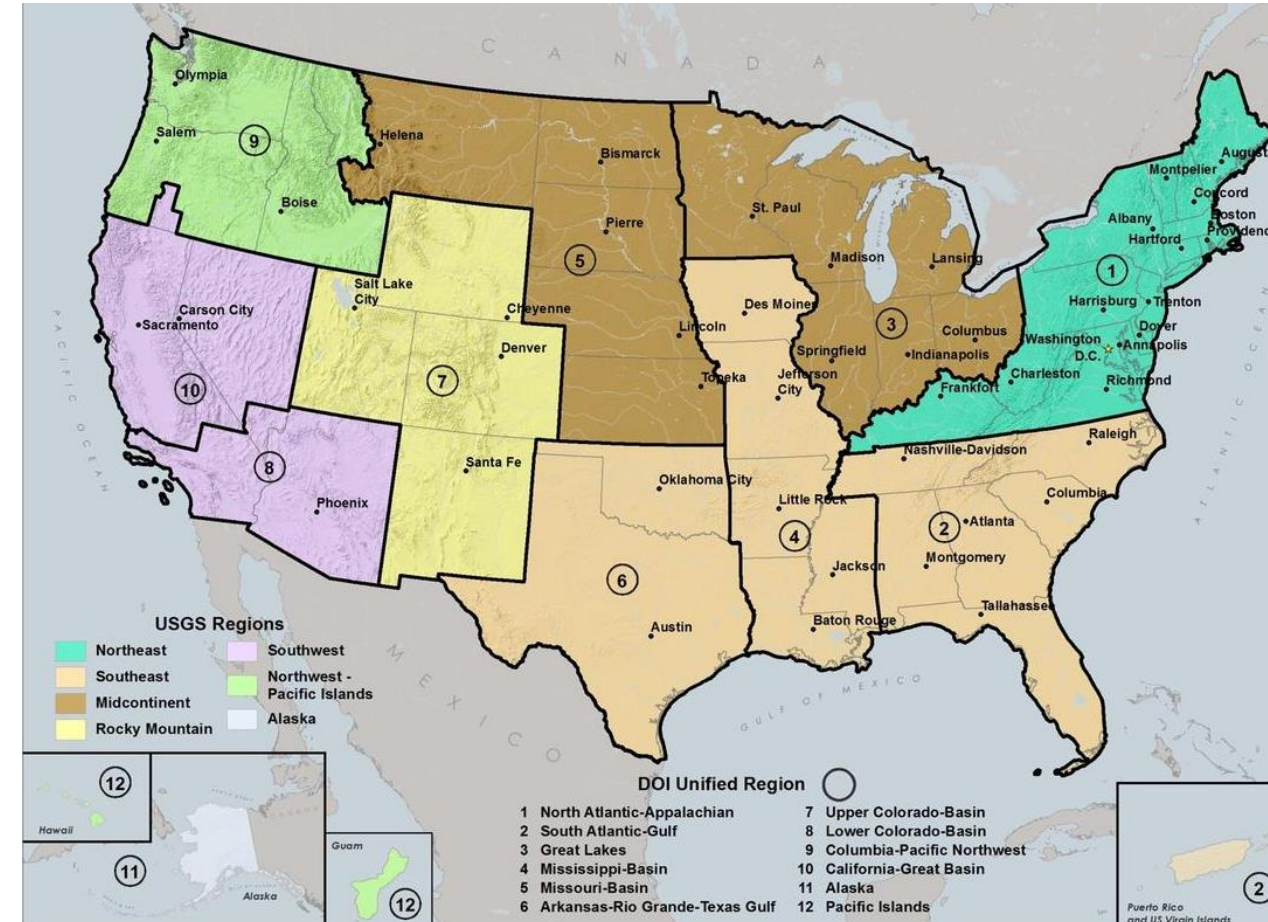
- USGS will work to resolve all concerns raised by Tribal Nations until resolved
- Letter/email from Tribal Nation stating concerns and desired action is helpful
- Tribal Nations may review data and draft products prior to publication
- NCGMP will consider requests to omit Tribal Nation areas from publications and/or requests to modify projects to minimize impact to Tribal Nation interests
- NCGMP is exploring ways to reduce administrative burden on Tribal Nations

Information Sessions

- Four NCGMP information sessions held in 2024 (GLIFWC, Pojoaque Pueblo, Santa Clara Pueblo, and Pueblo de San Ildefonso)
- 2025 planned information sessions for Alaska and Great Lakes Regions
- NCGMP goal is to hold annual information sessions across every U.S. region with broad invites to all federally recognized Tribal Nations and Native Villages

USGS & DOI Regions

- USGS Southwest Tribal Liaison
Russ Taylor-Grimes,
rtaylor-grimes@usgs.gov
- USGS Rocky Mountain Tribal Liaison
Jeanne Godaire
jgodaire@usgs.gov



Contact Information

Jenna Shelton

NCGMP Deputy Program Coordinator & Senior Program Scientist for STATEMAP

jshelton@usgs.gov

Brianna Lopez

Physical Scientist, NCGMP

blopezhetland@usgs.gov

Kate Ritzel

Physical Scientist, NCGMP

kritzel@usgs.gov

Open Discussion

WRP Tribal Engagement Committee Co-Chairs



Will Micklin

- CEO, Ewiiapaayp Band of Kumeyaay Indians

LeRoy N. Shingoitewa

- Hopi Tribal Council Representative

Floyd W Velasquez Sr.

- Emergency Services Administrator, Morongo Band of Mission Indians





WRP TEC Next Steps

Roll up of Action Items



- **Please sign up for a WRP account – wrpinfo.org**
 - Invite/Encourage other Tribal members/liaisons to be part of TEC
- **Please provide input on Tribal Leadership Excel document**
- **Seeking Tribal NR Co-Chair and an additional TEC Co-Chair**
- **Interest in being part of a WRP Deep-Dive:**
 - Water Security/resilience
 - Wildland Fire (response/ prevention)
 - Aviation/ Airspace Needs
- **Please indicate if you:**
 - Are interested in being part of the Outreach Subcommittee
 - Have recommendations on future agenda topics
 - Have additional resources like a study/funding for the good of the team



WRP 2025 Calls



May 30	▪ New Mexico Energy Conservation and Management (ECAM) Update by Robert Gomez, Sustainability & Resilience Officer
June 27	
July 25	
Aug 29	
Sept 26	▪ Vacate/reschedule or keep as scheduled?
Oct 31	
Dec 5	

TBD: FAA's drone requirements/regulations and how it might impact Tribes/tribal sovereignty by UAS Integration Office and UAS Integration Office



Around The Phone



Thank you!

