

Water Security for Generations



Hybrid Technical Advisory Group Presentation
March 25, 2025

NAVAJO RESERVATION ESTABLISHED IN 1868

Article II

The United States agrees that the following District of Country to wit—
Bounded on the north by the 34° degree of north Latitude, south by an east and west line passing through the site of Old Fort Defiance in Cañon Bonito, east by the parallel of longitude which if prolonged south would pass through old Fort Lyon, or the Ojo-de-oso, Bear Spring, and west by a parallel of longitude about 109° 30' west of Greenwich provided it embraces the outlet of the Cañon-de-Chilly, which cañon is to be all included in this Reservation, shall be, and the same is hereby set apart for the use



SEVERE WATER ACCESS GAP

- The nonprofit Navajo Water Project says the Diné are 67 times more likely to be without running water or a toilet connected to sewer lines than others in the United States.
- EPA reports 18% of homes lack access, but the Nation reports 30 to 40 percent of homes lack access to running water.
- Navajo & Hopi Families COVID-19 Relief Fund's data shows that 50-70% of families in some communities lack access to indoor plumbing



WATER HAULING DATA

- 68% of water haulers surveyed have been hauling water for more than 10 years.
- Over half traveled 5-10 miles to haul water, often on rough and poorly maintained dirt roads, and in aged and worn vehicles.
- Another 10 percent traveled more than 30 miles to access water.
- More than half of these people hauled water 2-3 times a week.
- More than half haul water for another household other than their own.

Source: Recent preliminary Navajo water haulers research study results conducted by Dr. Karletta Chief from the University of Arizona

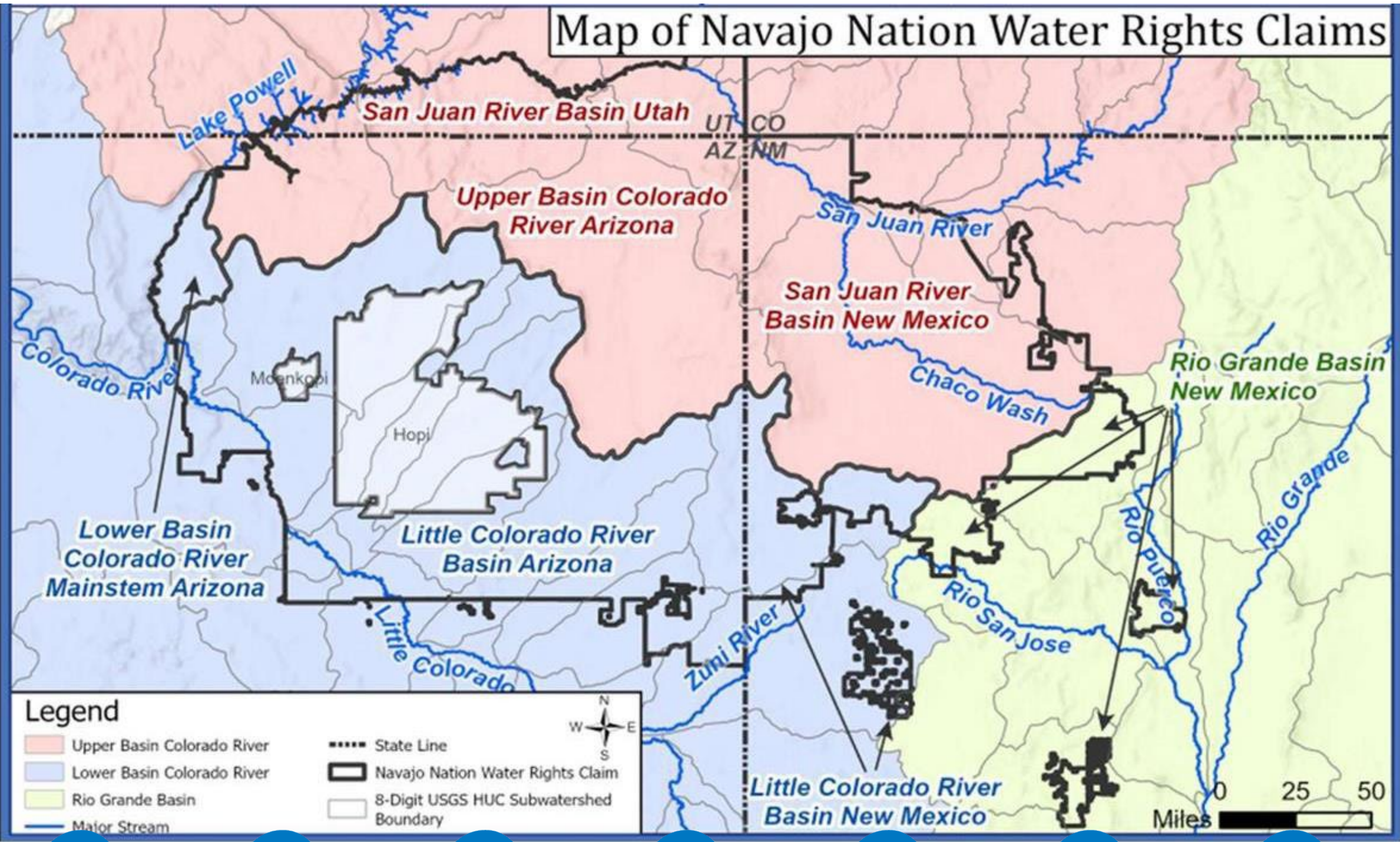


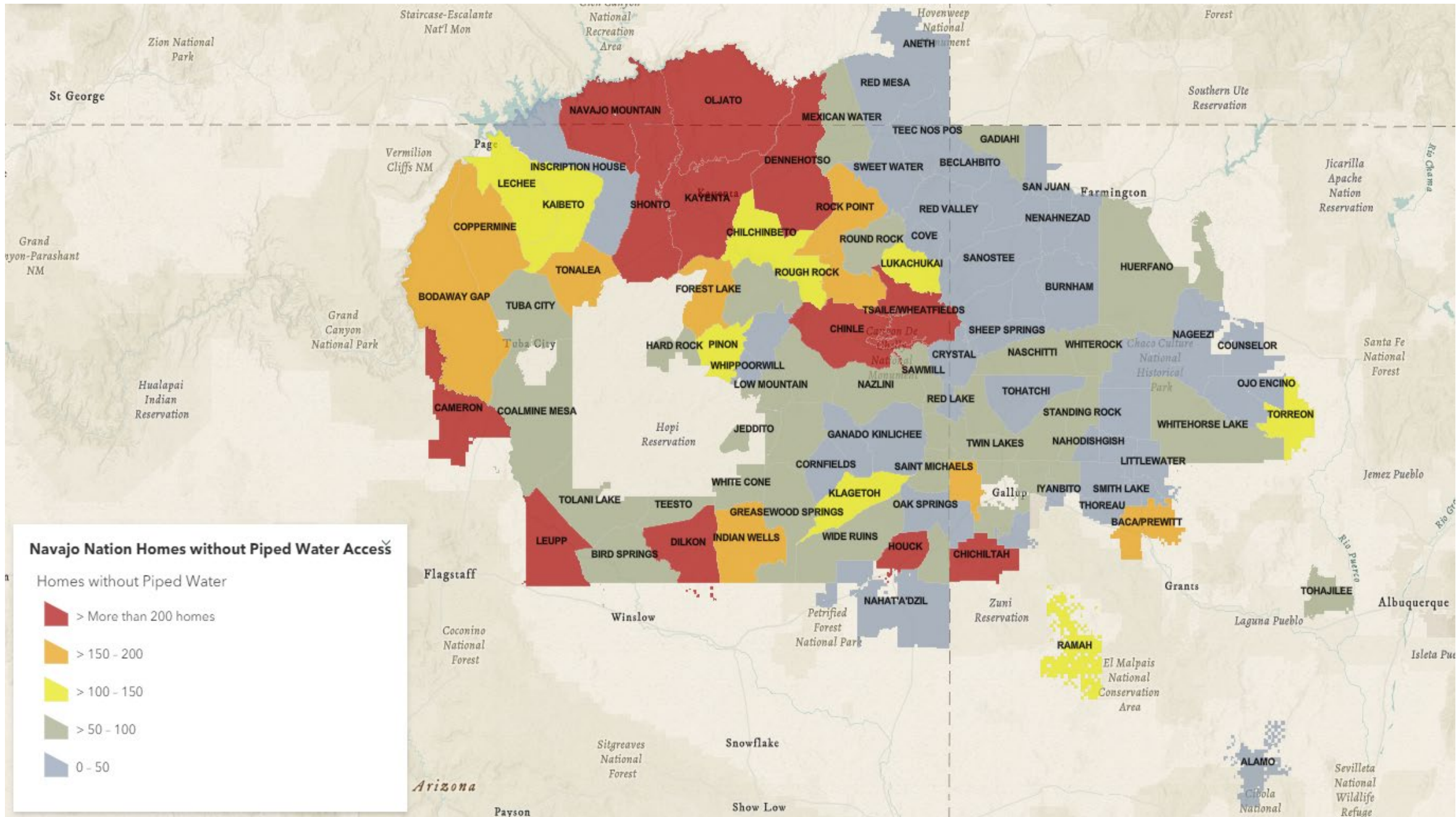
THE COST OF HAULED WATER

- The cost of water in Arizona for 100 gallons is \$0.20 - \$0.40.
- In 2011, the estimated Navajo water hauling cost was \$13.30 for 100 gallons (Source: Navajo Nation Department of Water Resources Water Development Strategy Report).
- Time magazine recently reported that it costs Navajo water haulers 71 times as much as the average American.
- More than a third of our Navajo people living on the Nation are 50 years or older, and many are on a fixed income.



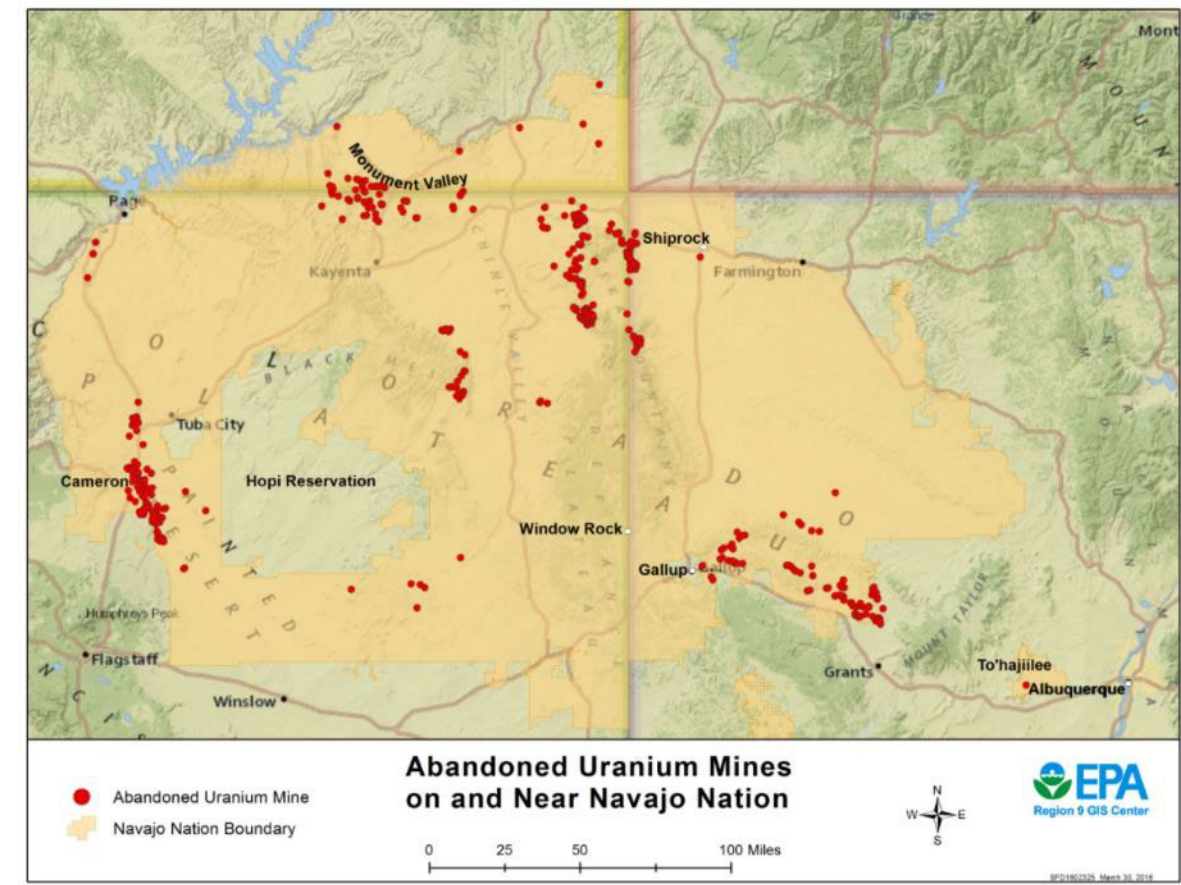
Map of Navajo Nation Water Rights Claims



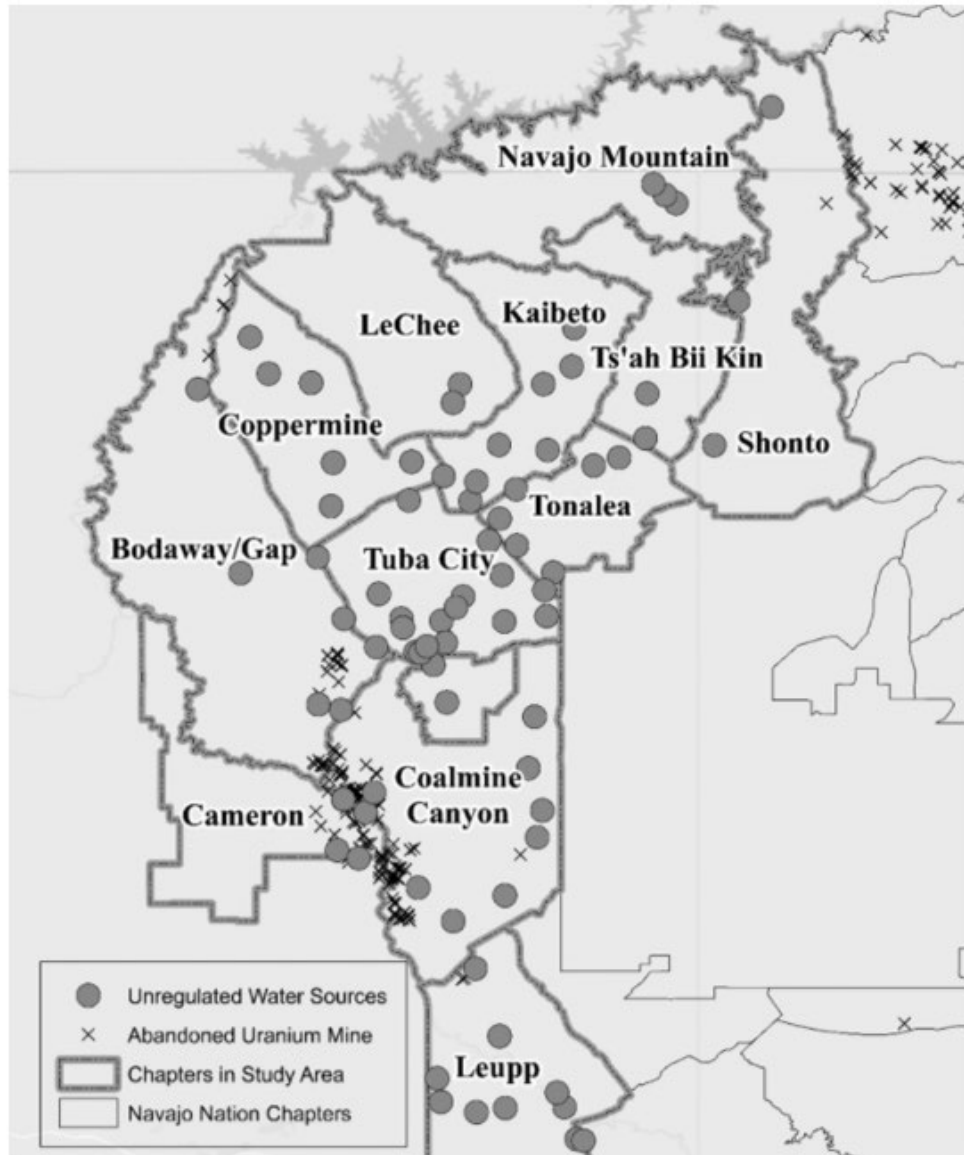


URANIUM MINES

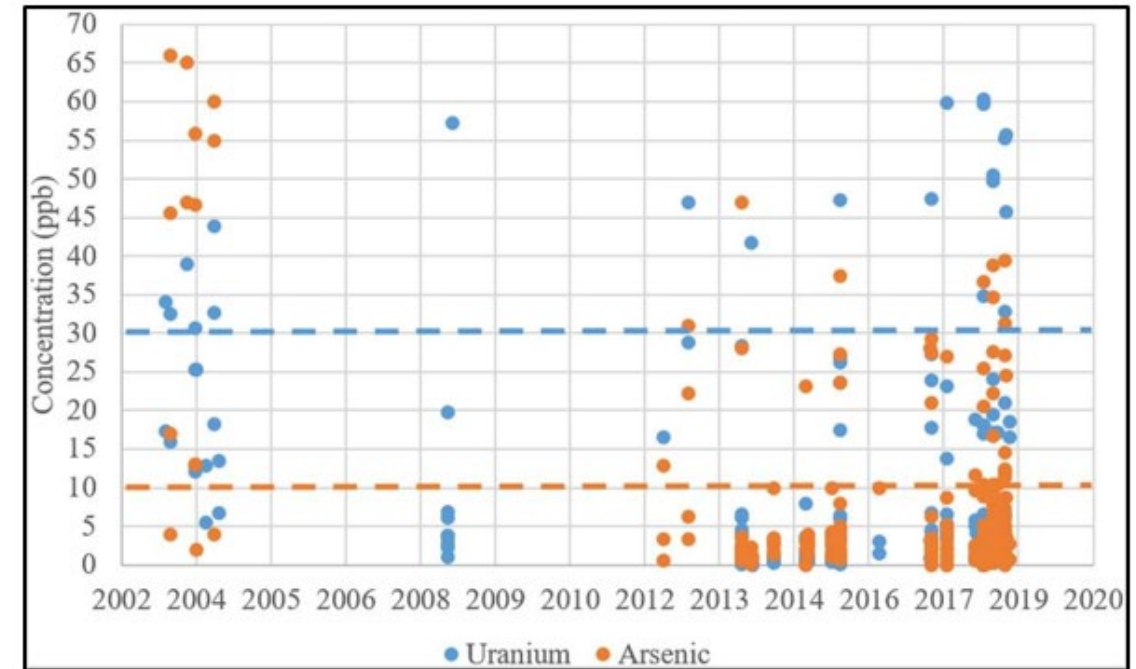
- Nearly **30 million tons** of uranium ore were extracted from Navajo lands between 1944 and 1986
- EPA has mapped 521 abandoned uranium mine sites within the boundaries of the Navajo Nation
- Navajo Nation banned uranium mining in 2005
- “Health effects from uranium exposure in water have led to kidney disease and cancers in Navajo residents.” -- Department of Interior Office of Environmental Policy and Compliance statement



URANIUM AND ARSENIC UNREGULATED WATER ISSUES



Ingram et al. 2020, , [J Vac Sci Technol A](#).

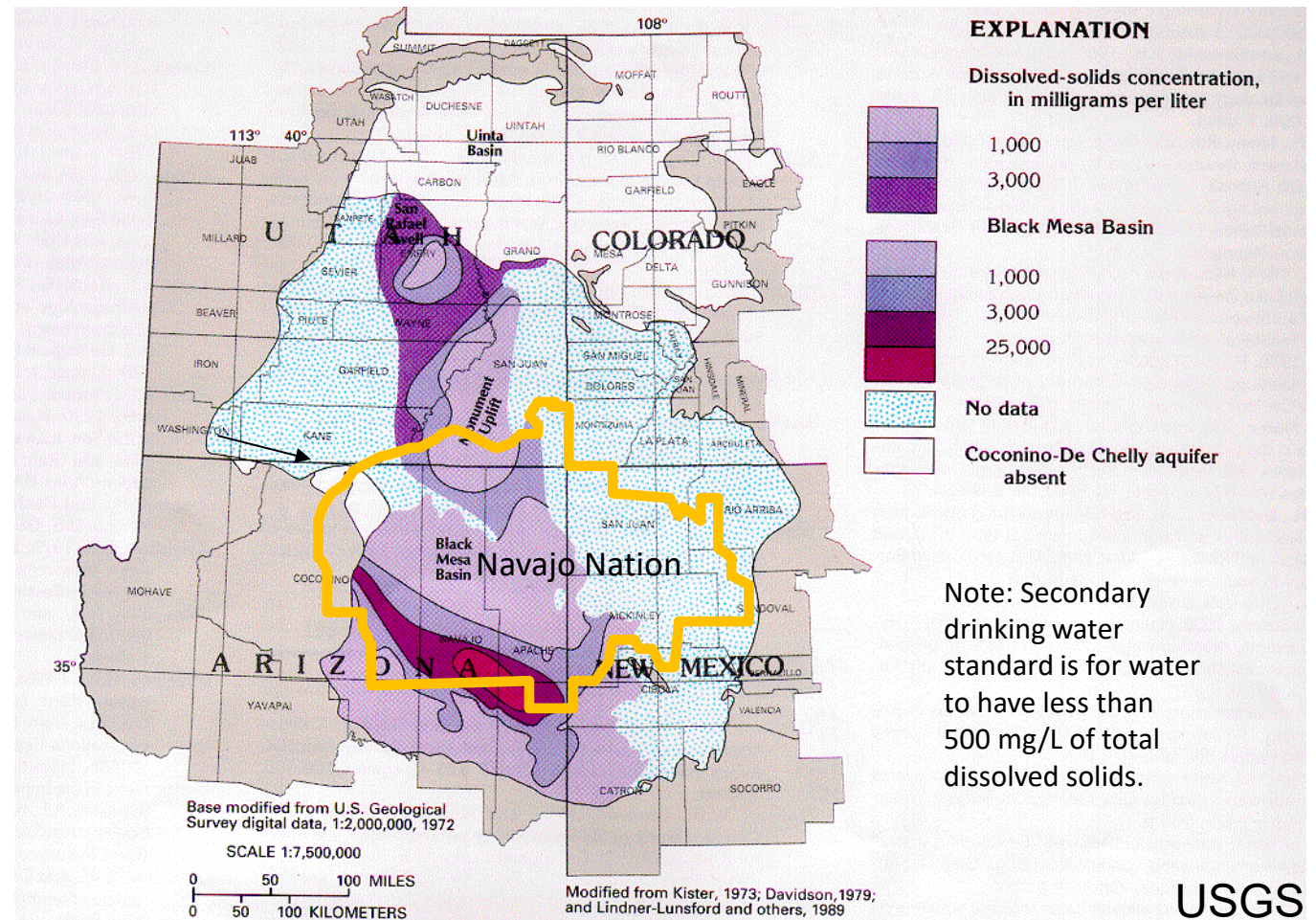


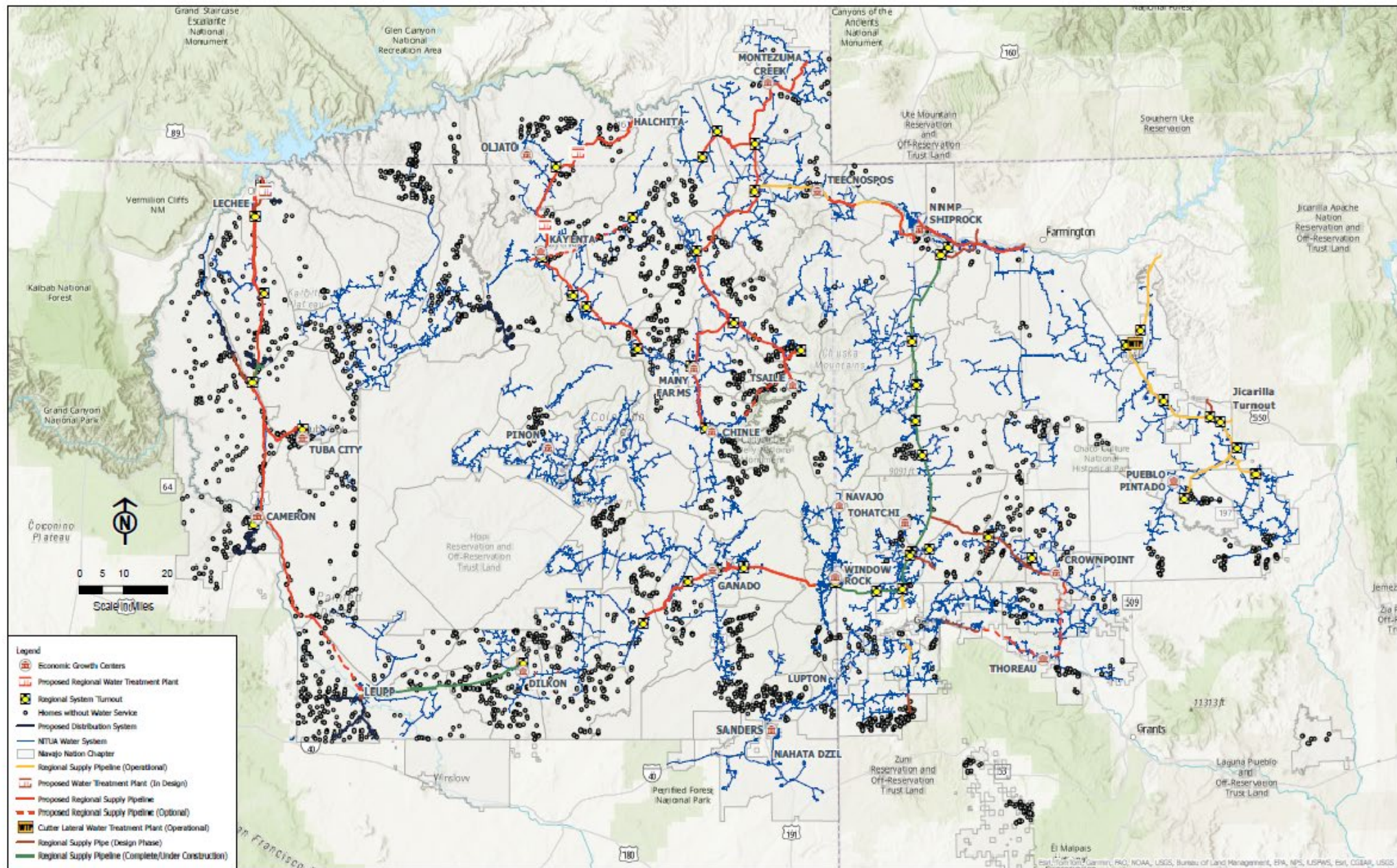
Ingram et al. 2020, [J Vac Sci Technol A](#).

The maximum contaminant level (MCL) for uranium in drinking water set by the US EPA is 30 micrograms per liter ($\mu\text{g}/\text{L}$) for uranium and 10 micrograms per liter for arsenic.

BRACKISH WATER

- In the Black Mesa Basin, the total dissolved solids concentration is greater than 25,000 milligrams per liter according to a USGS map of the region.
- The secondary drinking water standard is for water to have less than 500 milligrams per liter of total dissolved solids.





Last update: March 4, 2024

Navajo Tribal Utility Authority Global Water Map

Homes without Water Services on the Navajo Nation



SETTLEMENT IS BETTER FOR THE NAVAJO NATION THAN LITIGATION

LITIGATION

- Based on minimal need
- Paper decree only
- No funding for infrastructure
- Resources appurtenant to the reservation
- Adversarial
- Lengthy
- Costly

SETTLEMENT

- Certainty
- Funding for wet water development
- Better tools for water management
- Authorizations for water diversions & movement between states and basins
- Negotiated



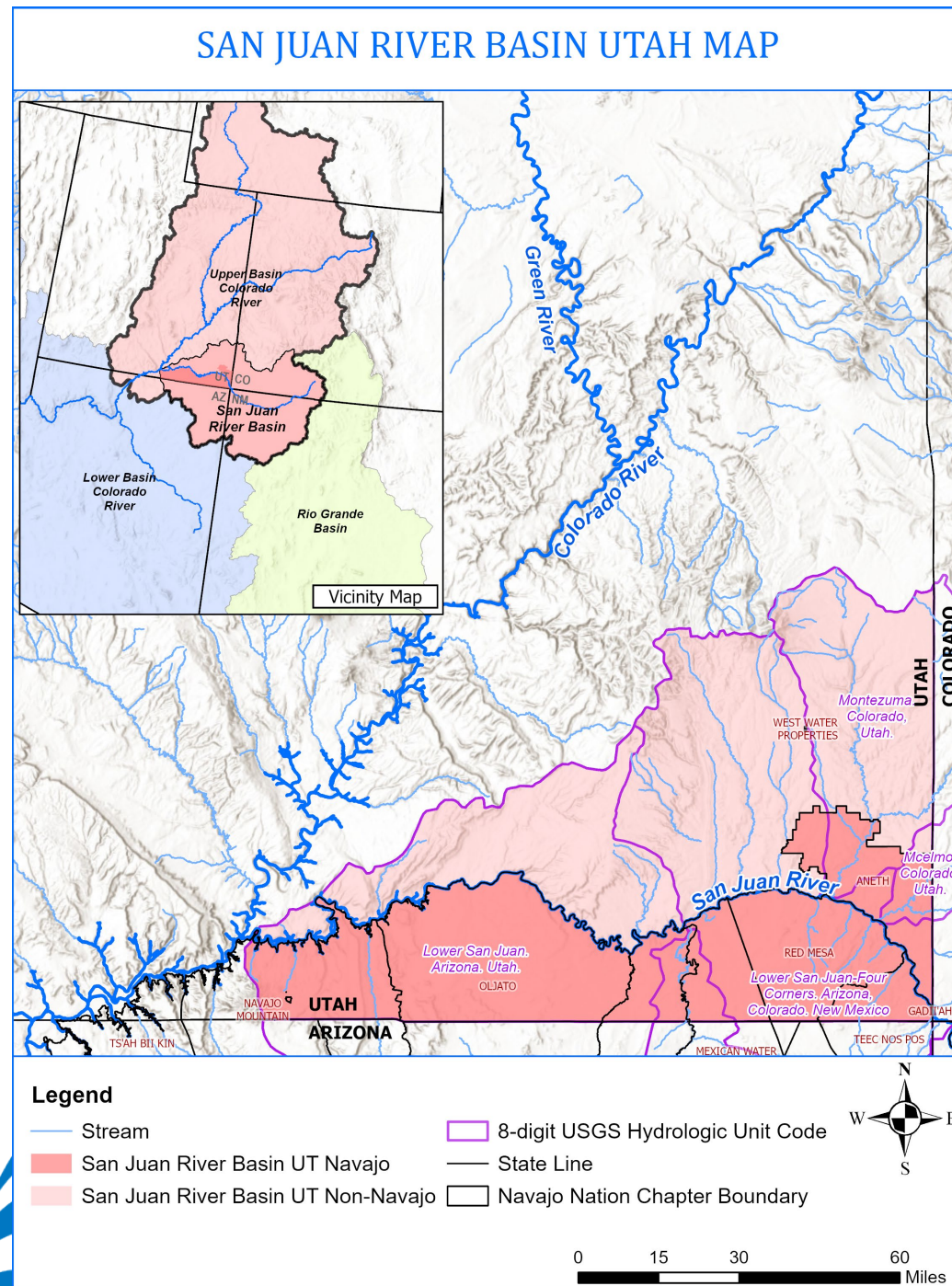


**NAVAJO UTAH WATER
RIGHTS SETTLEMENT
UPDATE**





NAVAJO UTAH WATER RIGHTS SETTLEMENT ACT



- A **Hydrologic Survey Report (HSR)** is being conducted to assess the Nation's historic, current, and future water uses.
- In addition, a **water infrastructure project plan** covered under the \$210 million settlement funding is underway.
- The approval process includes prioritizing water projects, analyzing proposed projects and existing studies, and conferring with local chapters.
- Funds, which have been set aside in an interest-bearing account, will be released once plans for use of funding are approved by Navajo Nation leadership.




**NORTHEASTERN ARIZONA
INDIAN WATER RIGHTS
SETTLEMENT ACT OF 2025**

S. 953, H.R. 2025





39 SETTLING PARTIES TO THE NORTHEASTERN ARIZONA INDIAN WATER RIGHTS SETTLEMENT AGREEMENT, INCLUDING:

1. Navajo Nation
 2. Hopi Tribe
 3. San Juan Southern Paiute
 4. Department of the Interior
 5. State of Arizona
 6. Arizona Department of Water Resources
 7. Arizona State Land Department
 8. Salt River Project
 9. City of Flagstaff
 10. Little Colorado River Coalition
- 

NAVAJO WATER SOURCES CLAIMS TO SETTLE

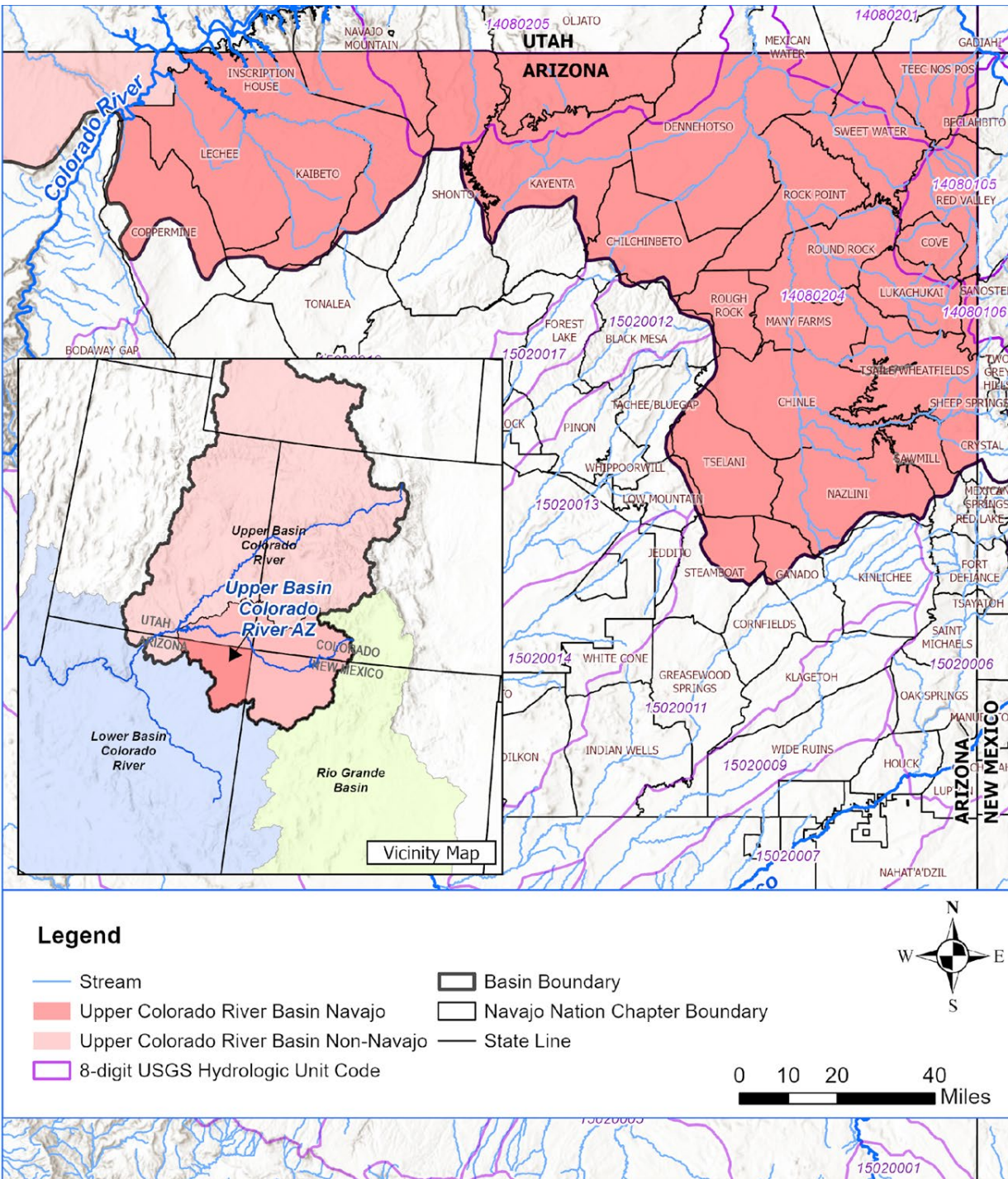


Grand Falls

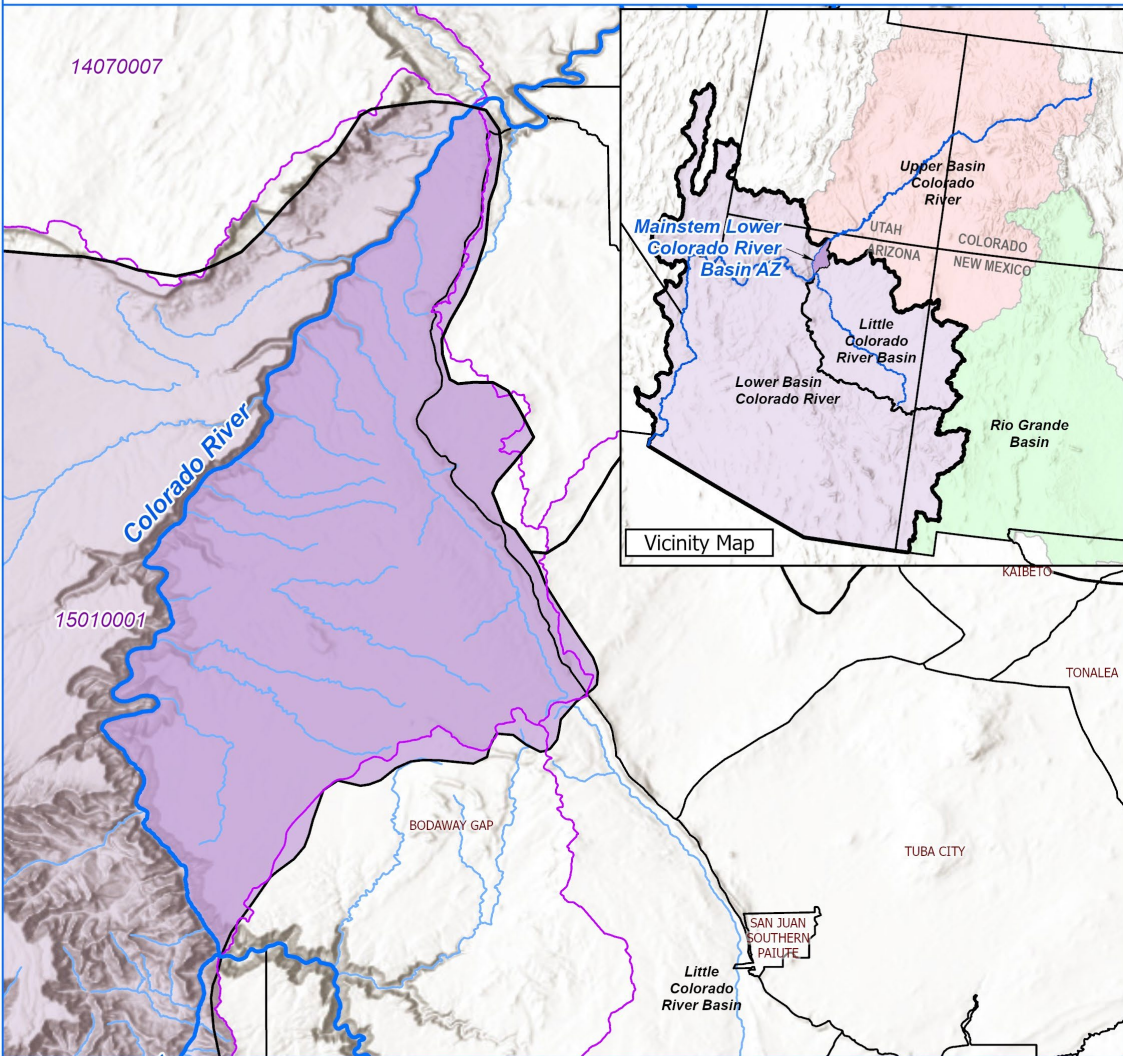
- Upper Basin Colorado River water
- Little Colorado River mainstream and tributary water
- 4th priority Lower Basin Colorado River water
- Cibola Lower Basin Colorado River water
- Groundwater
- Effluent
- Big Boquillas Ranch

UPPER COLORADO RIVER BASIN

- 44,700 AFY (acre-feet per year) of the Arizona Upper Basin allocation



MAINSTEM LOWER COLORADO RIVER BASIN ARIZONA MAP



MAINSTEM LOWER COLORADO RIVER BASIN

- 4th priority Lower Basin Colorado River Water
- 3,600 AFY (including 100 AFY of Cibola Lower Basin Water)

Legend

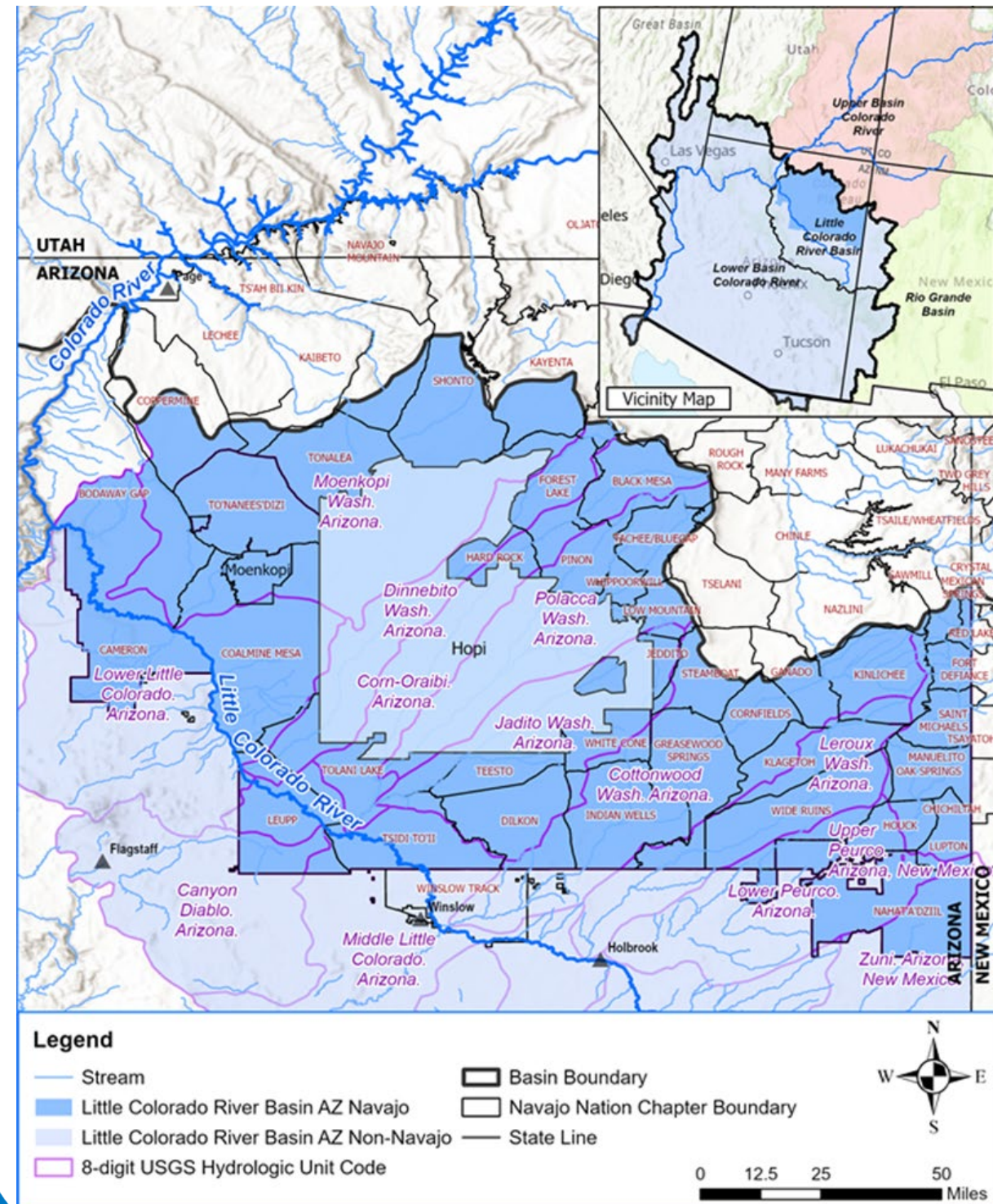
- Stream
- Basin Boundary
- Navajo Nation Chapter Boundary
- State Line
- 8-Digit USGS Hydrologic Unit Code



0 3.75 7.5 15 Miles

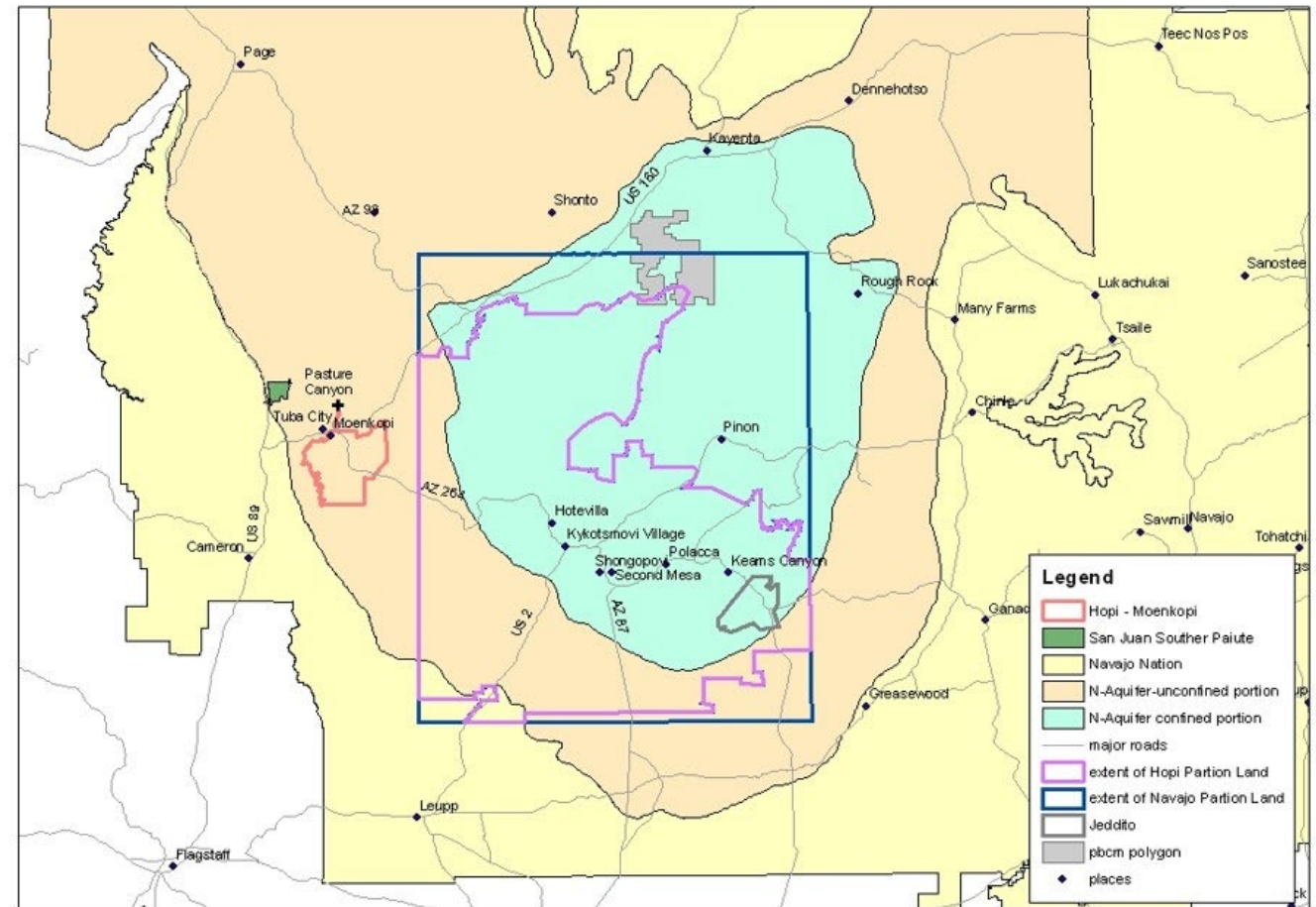
LITTLE COLORADO RIVER

- Little Colorado River Mainstem Water:
- All the Little Colorado River mainstem water that reaches the Navajo Reservation
- (historic flows are estimated to be 122,000 AFY). Includes quantified amounts and priority dates for specific historic Navajo irrigation projects
- Little Colorado River Tributary Water: All tributary water that reaches the Navajo Reservation



GROUNDWATER

- Navajo Aquifer
- All that underlies the Navajo Reservation subject to an agreement between the Navajo Nation and the Hopi Tribe
- Limits Navajo pumping to 8,400 AFY (2,000 AFY may be used for industrial purposes)
- Limits Hopi pumping to 5,600 AFY (2,000 AFY may be used for industrial purposes)



file://edgewater/public/data/gis_files/n_aquifer_info.mxd

N-Aquifer Information Map

Navajo Nation Department of Water Resources
Water Management Branch (April 6th, 2006)

GROUNDWATER

- Coconino Aquifer
- All that underlies the Navajo Reservation
- Established protection zones and pumping limitations with:
 - Hopi
 - Arizona State Land Department
 - Bar T Bar

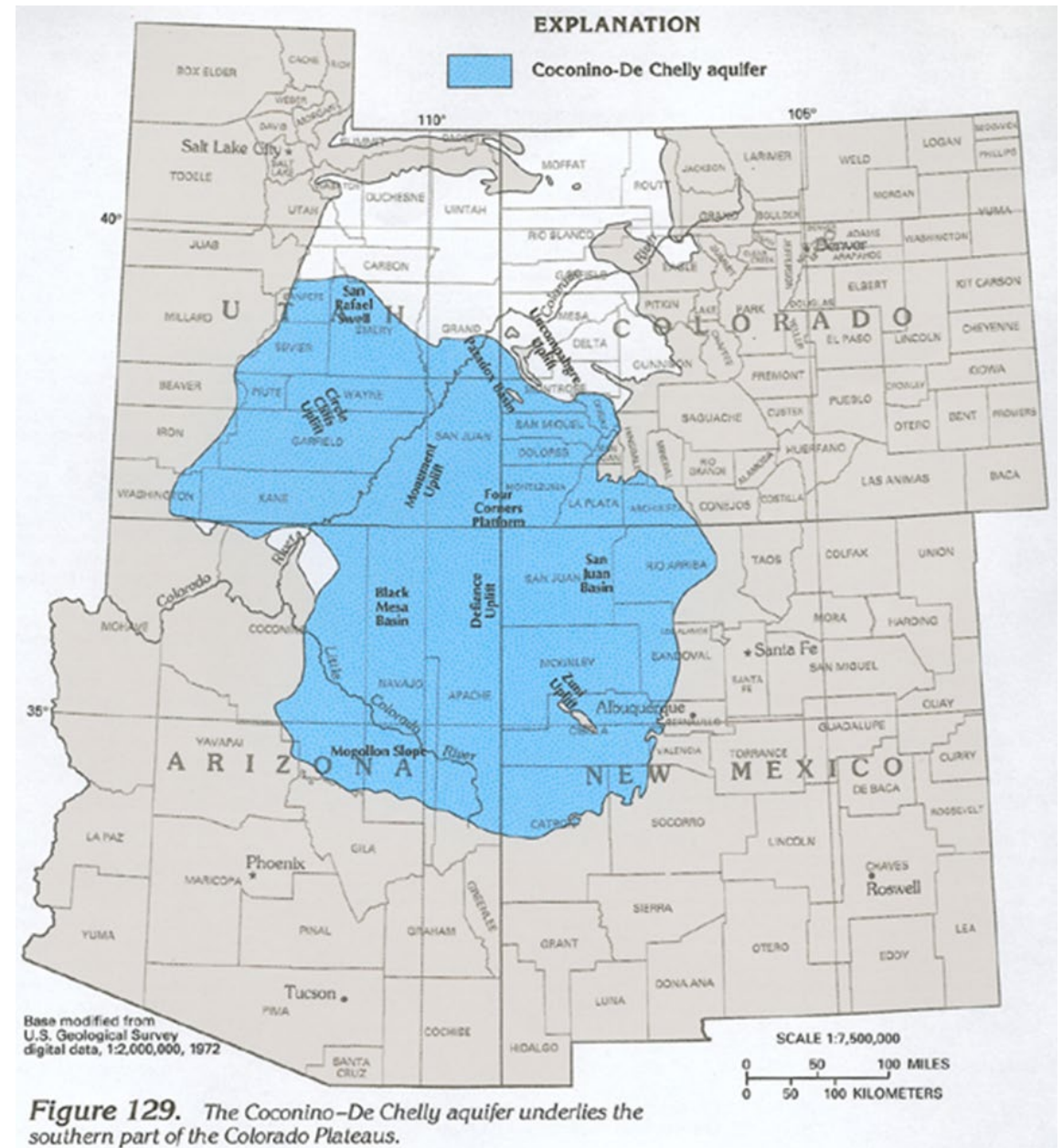


Figure 129. The Coconino-De Chelly aquifer underlies the southern part of the Colorado Plateaus.

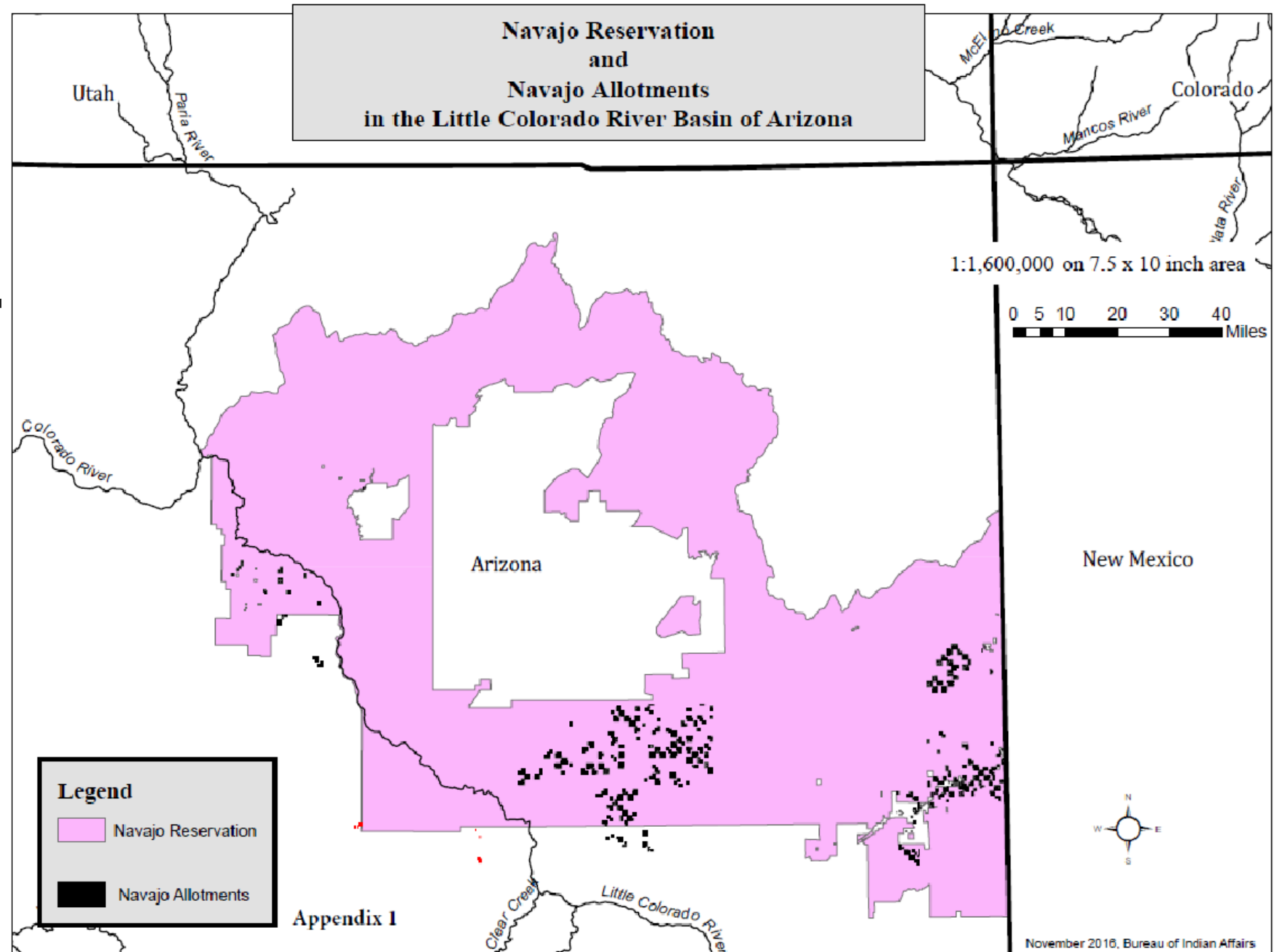


ALLOTMENT

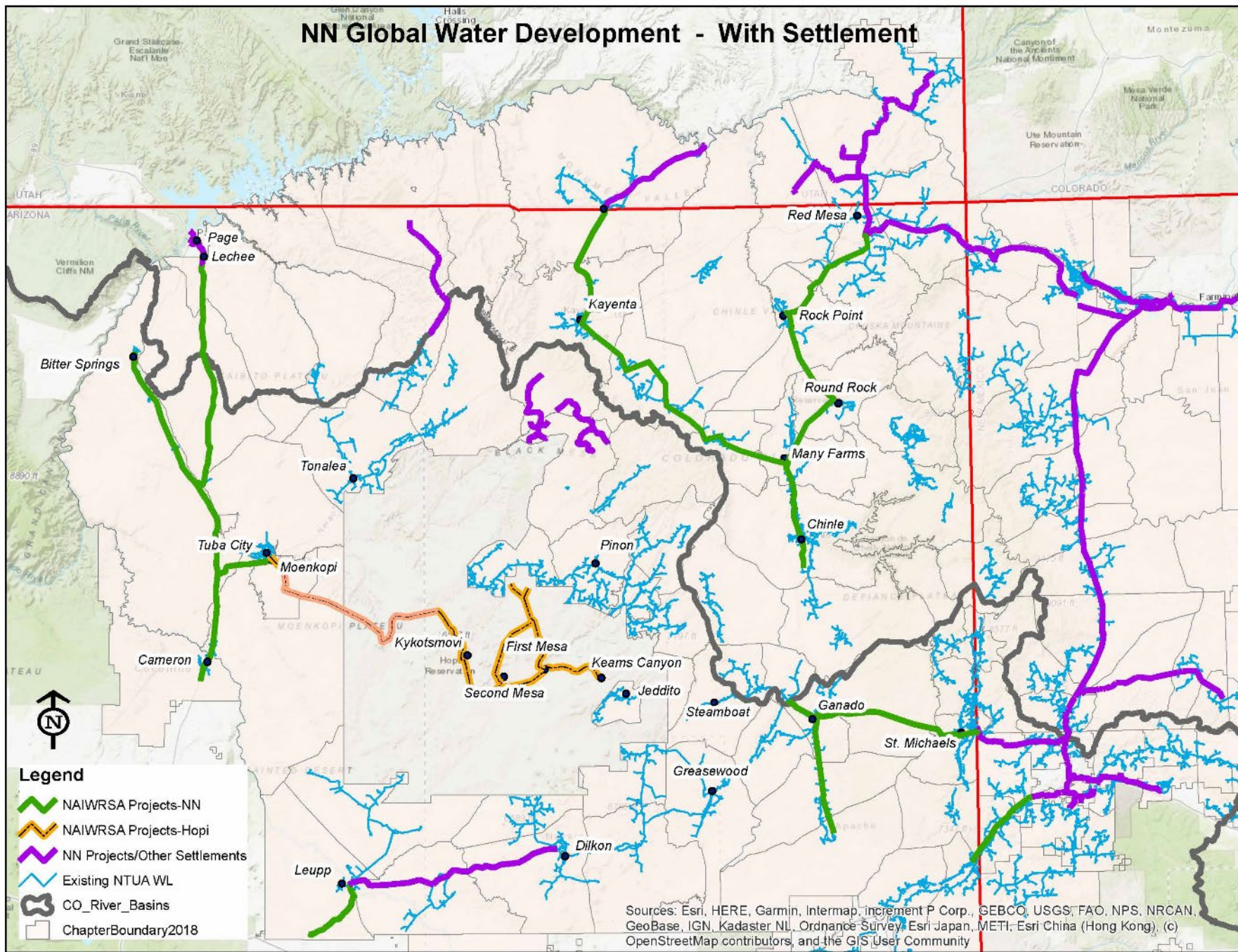
Navajo Section 1 Allotments

On-Reservation

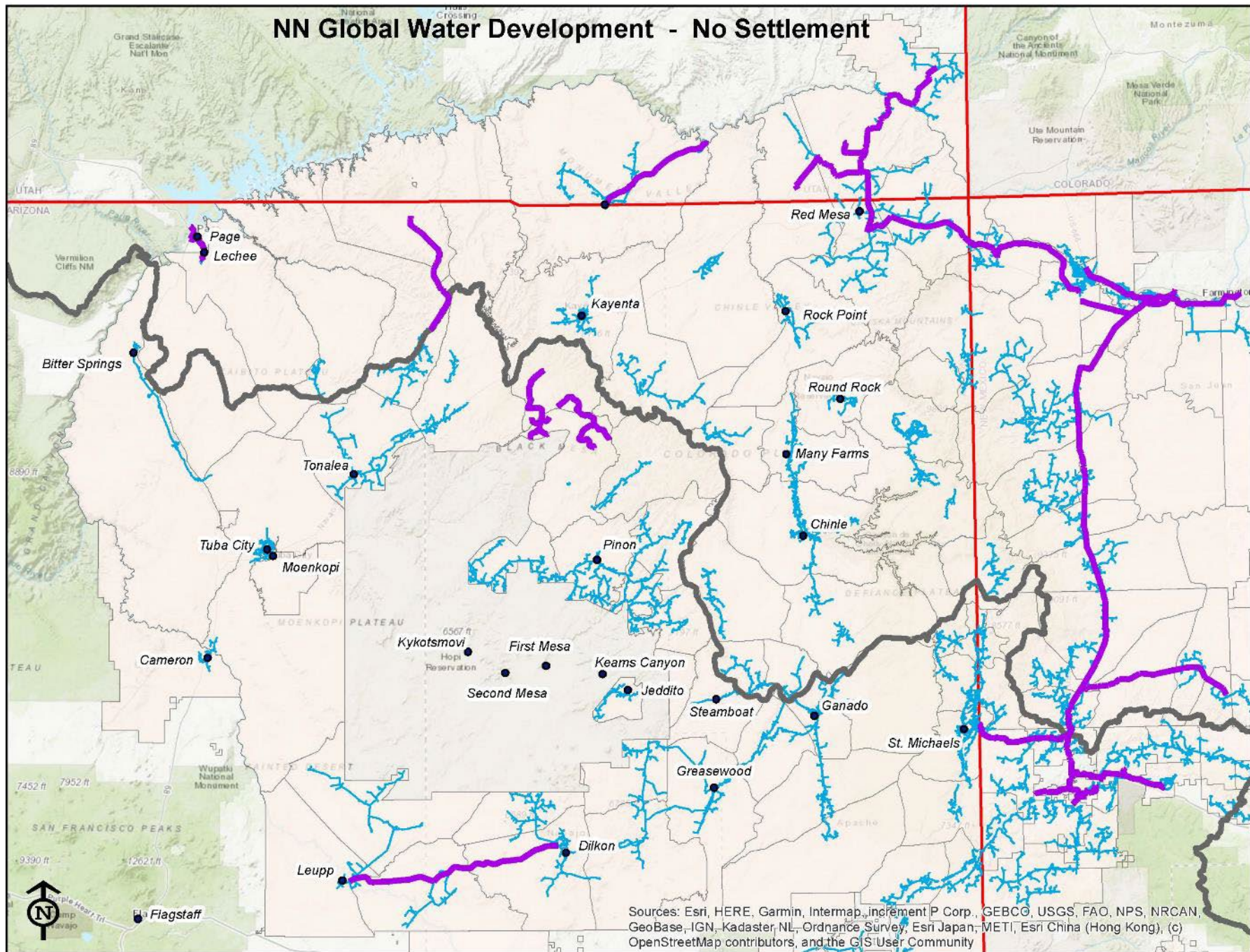
The United States will settle these claims. Navajo Section 1 Allottees will be served with Navajo Nation water.



NN Global Water Development - With Settlement



NN Global Water Development - No Settlement



NAIWRSA SETTLEMENT FUNDING

- iiná bá – paa tuwaqat'si pipeline Implementation Fund (\$1.715 billion)
- Navajo Nation Water Settlement Trust Fund, the Hopi Tribe Water Settlement Trust Fund, and the San Juan Southern Paiute Settlement Trust Fund (\$3.285 billion)



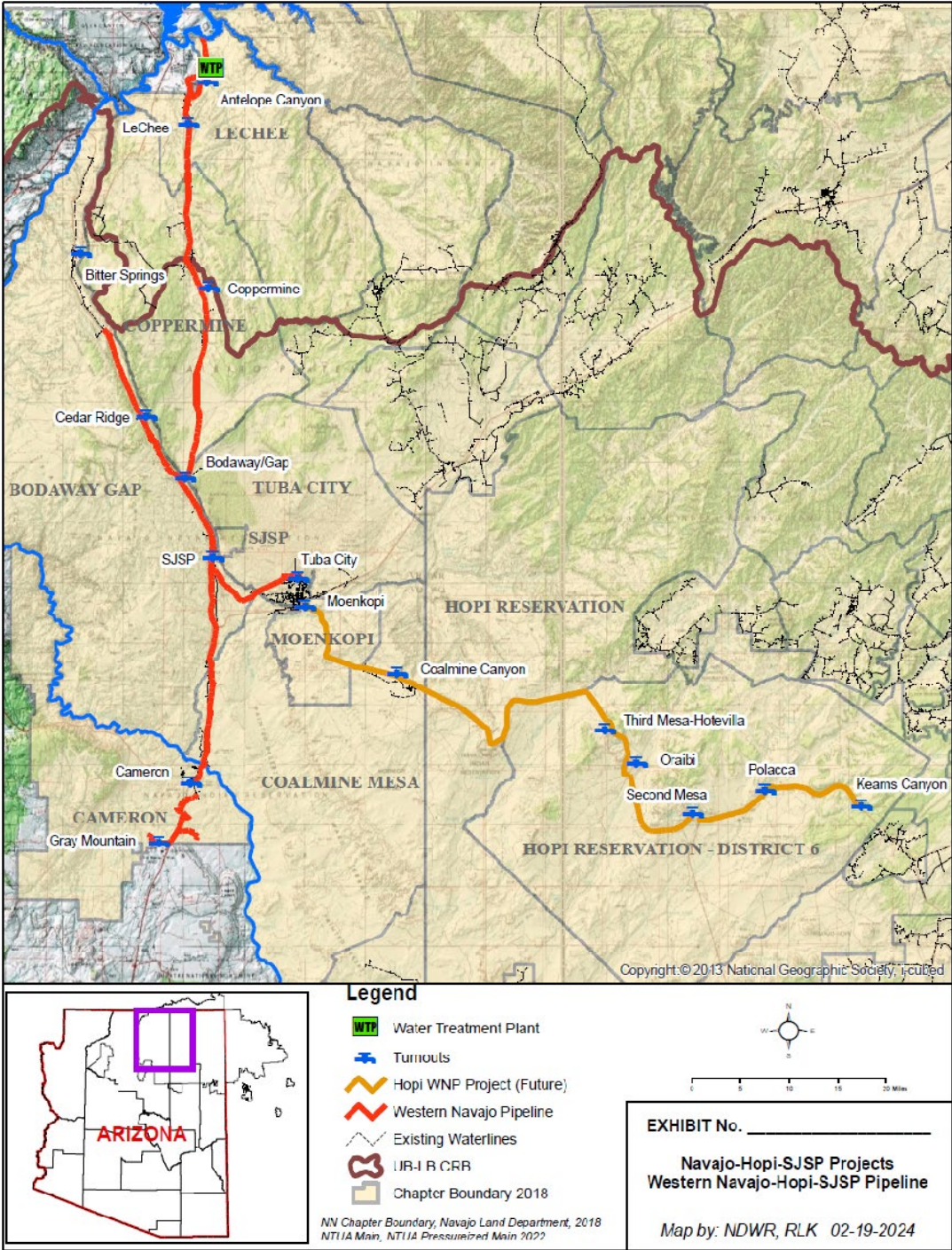
NAVAJO NATION SETTLEMENT FUNDING

- Navajo Nation Water Settlement Trust Fund (\$2,369,200,000)
- Navajo Nation OM&R Trust Fund (\$229,500,000)
- Navajo Nation Agricultural Conservation Trust Fund (\$80,000,000)
- Navajo Nation Renewable Energy Trust Fund (\$40,000,000)
- Navajo Nation Lower Basin Colorado River Water Acquisition Trust Fund (\$28,000,000)



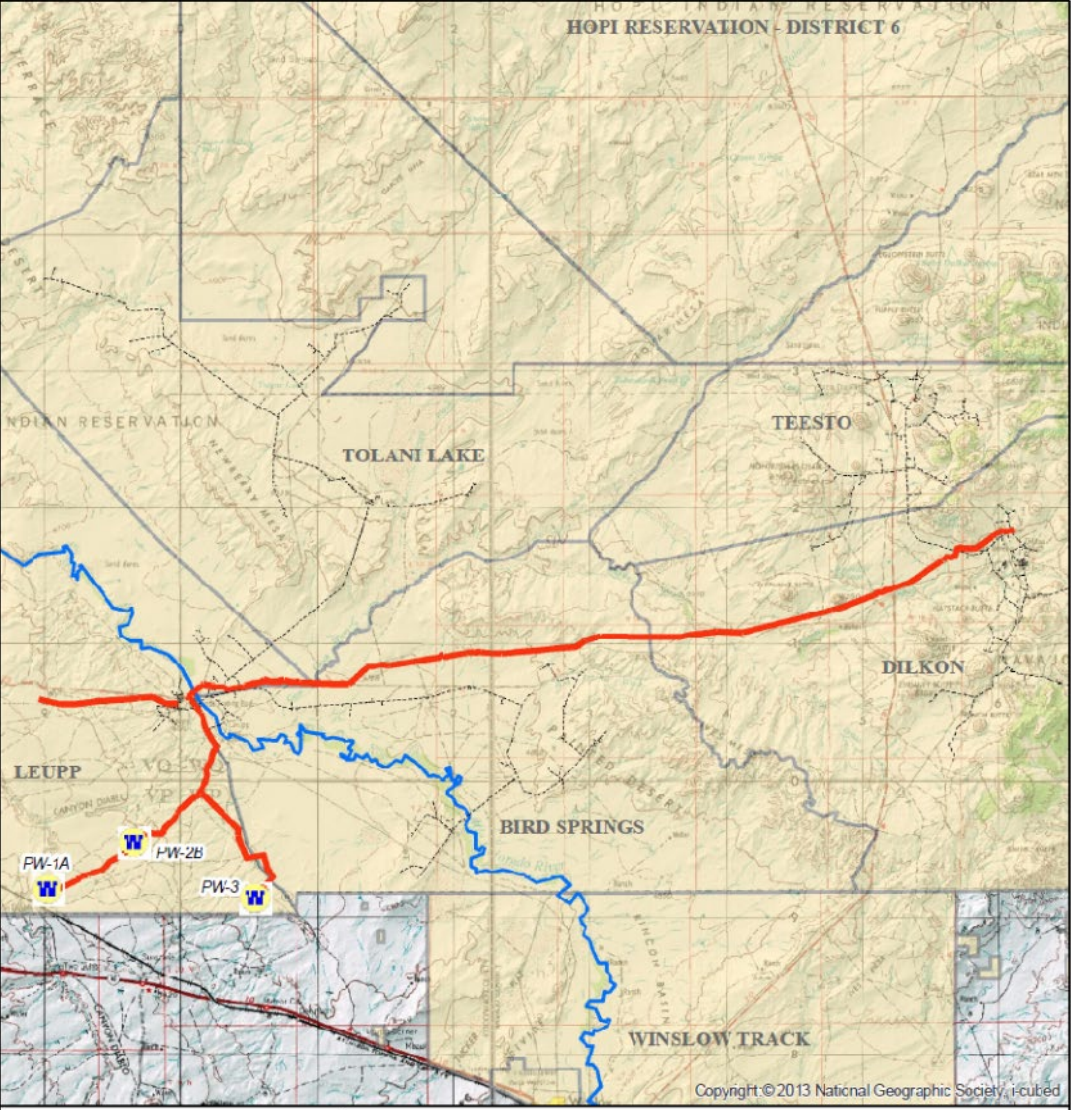
IINÁ BÁ – PAA TUWAQAT'SI PIPELINE

divert water from Lake Powell, benefiting Coppermine, Kaibeto, LeChee, Bodaway/Gap, Cameron, and Tuba City and Hopi villages



SOUTHWEST NAVAJO REGIONAL GROUNDWATER PROJECT

- Will extend the Leupp-Dilkon Project to the benefit of Leupp, Bird Springs, Tolani Lake, Dilkon, Teesto, Indian Wells, White Cone, and Greasewood



Legend

- C-Aquifer Wells
- Leupp Dilkon Regional GW Project
- Existing Waterlines
- Chapter Boundary 2018

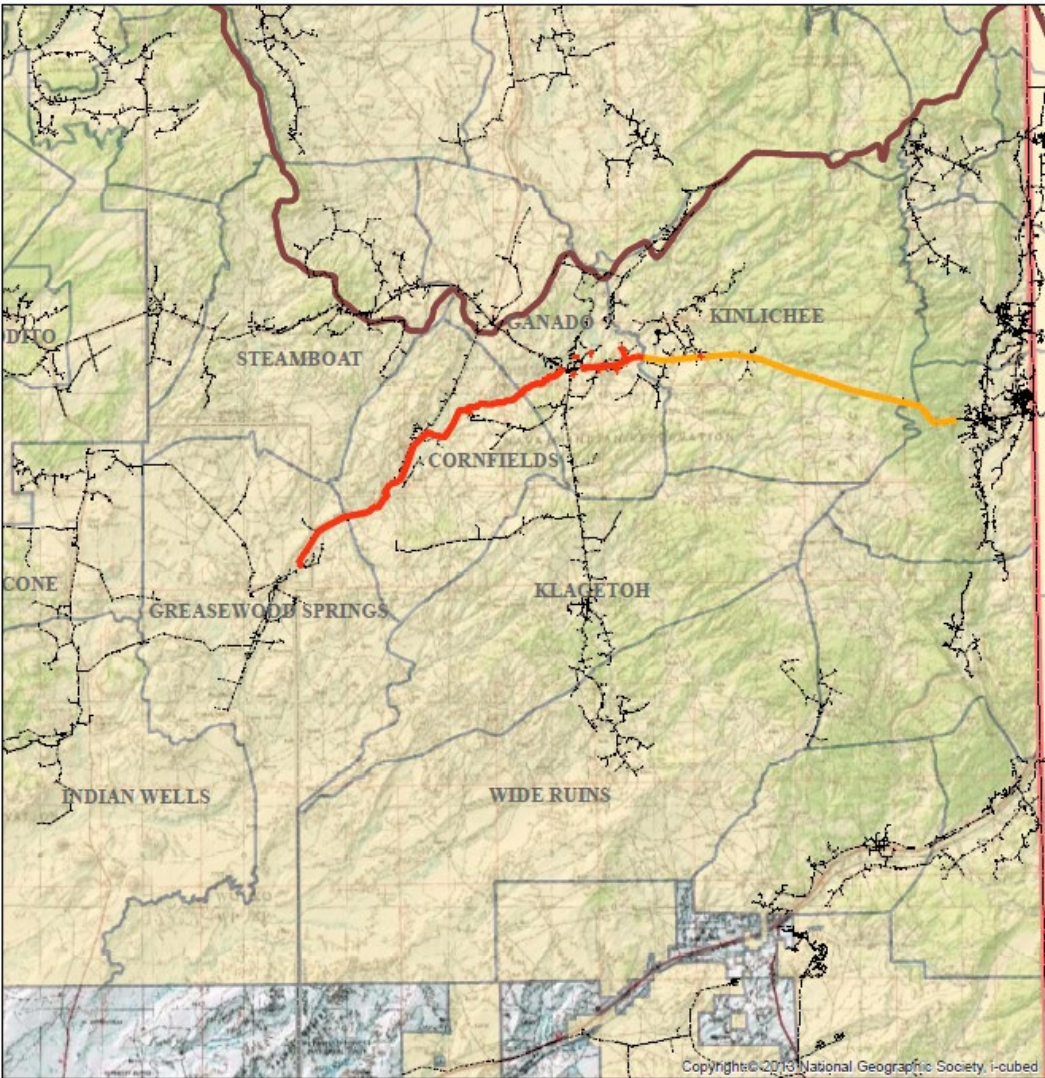
EXHIBIT No. _____

**Navajo Water Projects
Leupp-Dilkon Regional
Groundwater Project**

Map by: NDWR, RLK 02-20-2024

NN Chapter Boundary, Navajo Land Department, 2018
NT11A Map, NT11A Presumptive Main 2022





CODE TALKER LATERAL

Will extend the Code Talker Lateral waterline and expand public water systems and deliver Groundwater and Colorado River Water to Fort Defiance, Red Lake, and Saint Michaels, with an intertie to the Ganado Area Project.

Legend

- Ganado Regional GW Project
- GRGW-NGWSP Connection
- Existing Waterlines
- UB-LB CRB
- Chapter Boundary 2018

EXHIBIT No. _____

Navajo Water Projects
Ganado Regional Groundwater Project

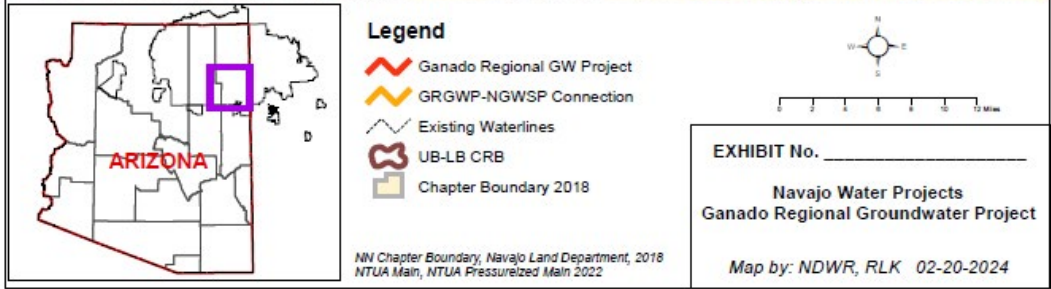
Map by: NDWR, RLK 02-20-2024

NN Chapter Boundary, Navajo Land Department, 2018
NTUA Main, NTUA Pressurized Main 2022



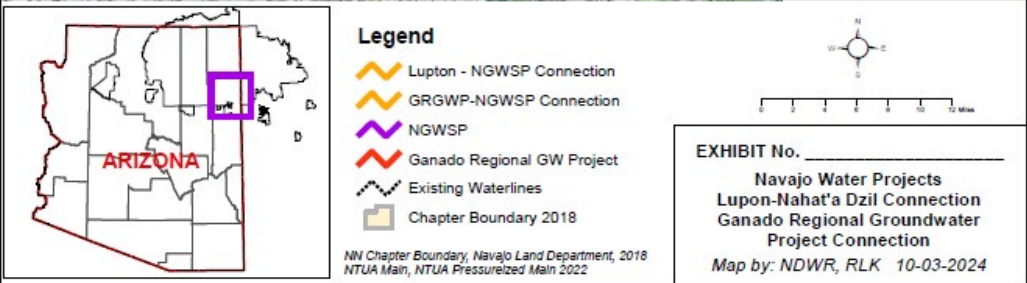
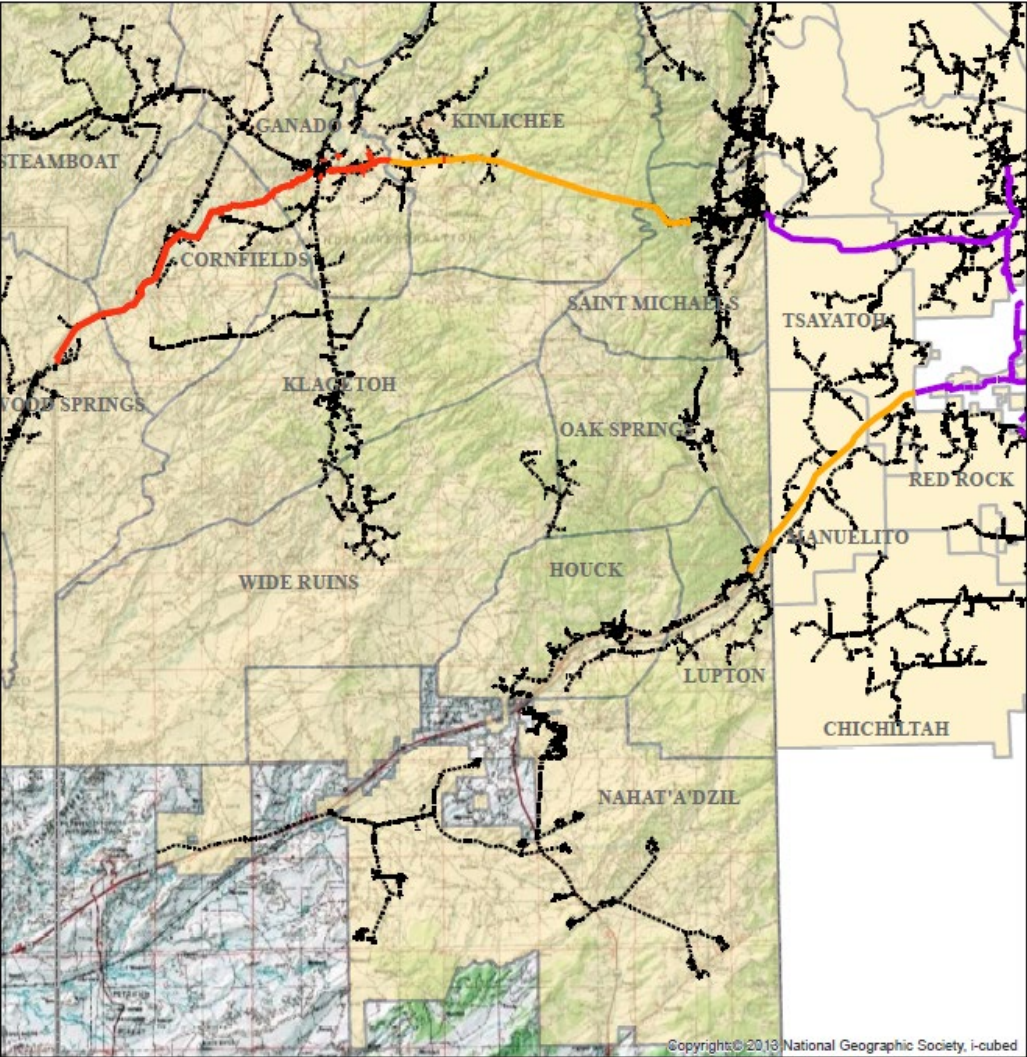
GANADO REGIONAL GROUNDWATER PROJECT

Will develop and expand public water systems to deliver C-Aquifer and Colorado River Water to Kinlichee, Ganado, Cornfields, Lower Greasewood, Jeddito, and Steamboat.



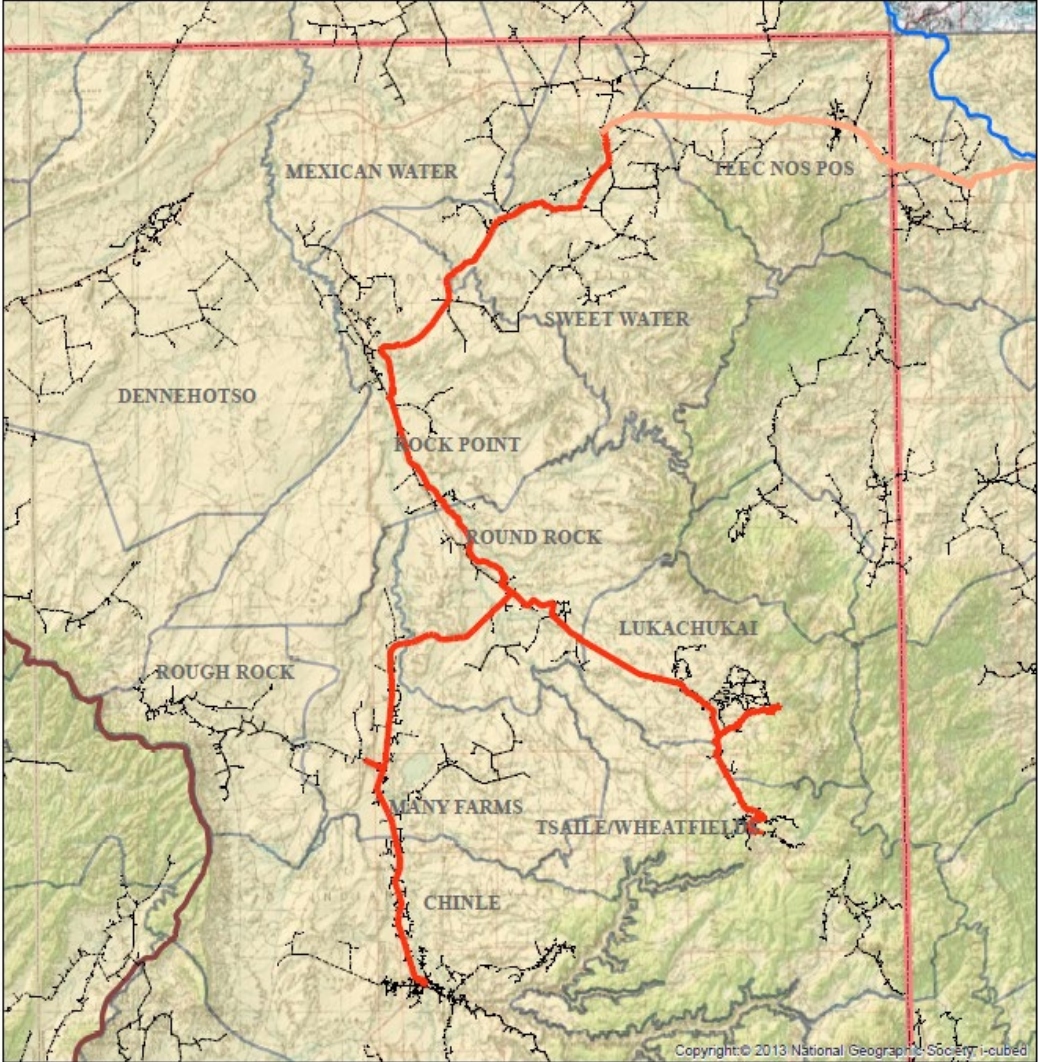
LUPTON AREA PROJECT

Will develop and expand public water systems to deliver Alluvial Aquifer and Colorado River Water to Houck, Lupton and Nahata'Dziil.



FOUR CORNERS PROJECT

Will develop and expand public water systems to deliver Upper Basin Colorado River Water to Chinle, Many Farms, Rock Point, Rough Rock, Round Rock, Sweetwater, Teec Nos Pos, and Tsaile/Wheatfields/Blackrock



Legend

- Sweetwater PL (NGWSP Connection)
- shiprock_supply_pipe
- 4-Corners-Central Navajo Pipeline
- Existing Waterlines
- UB-LB CRB
- Chapter Boundary 2018

Arizona

ARIZONA

*NAVJO Chapter Boundary, Navajo Land Department, 2018
NTUA Main, NTUA Pressurized Main 2022*

EXHIBIT No. _____

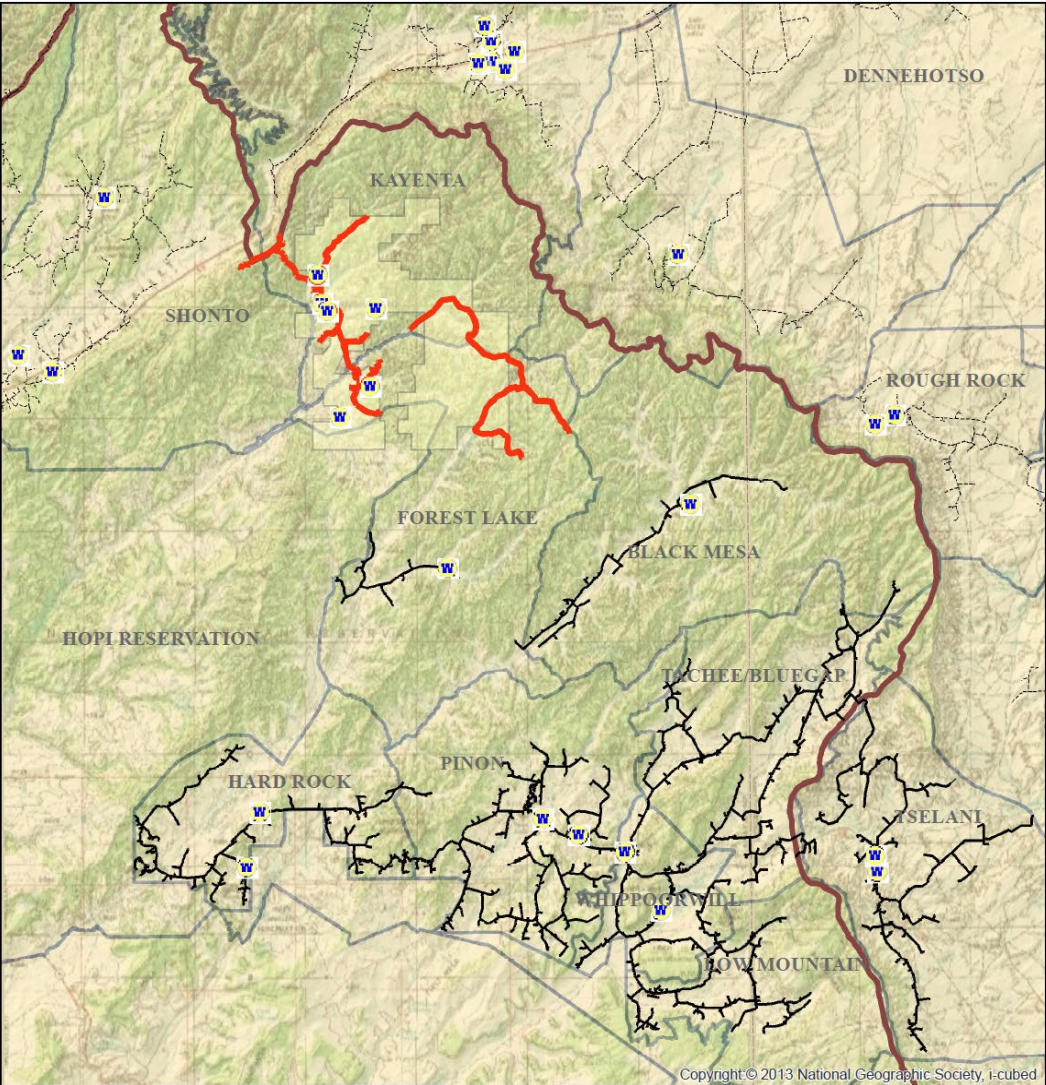
**Navajo Water Projects
4-Corners-Central Navajo
Pipeline Project**

Map by: NDWR, RLK 02-20-2024



BLACK MESA REGIONAL GROUNDWATER PROJECTS

Will develop and expand the public water systems to the benefit of Black Mesa, Forest Lake, Hard Rock, Low Mountain, Pinon, Blue Gap/Tachee, and Whippoorwill



Legend

- Wells
- Many Mules Pipeline
- Black Mesa Regional PWS
- Existing Waterlines
- Former Peabody Lease Area
- UB-LB CRB
- Chapter Boundary 2018

NN Chapter Boundary, Navajo Land Department, 2018
NTUA Main, NTUA Pressureized Main 2022

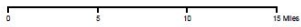


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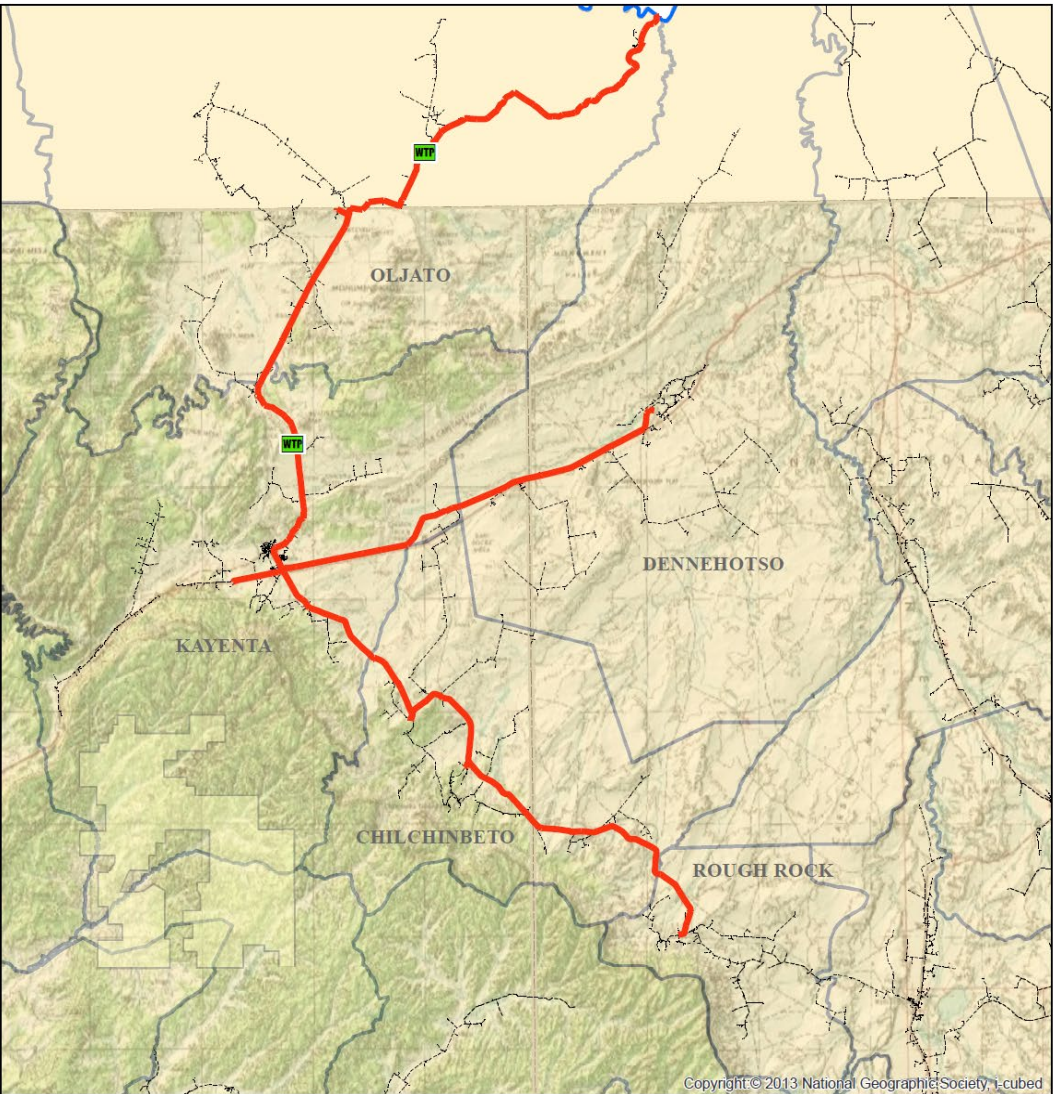
Navajo Water Projects
Many Mules Water Project
Black Mesa Regional GW Project

Map by: NDWR, RLK 02-20-2024



KAYENTA AREA PROJECT

Will develop and expand public water systems to the benefit of Chilchinbeto, Dennehotso, and Kayenta



Legend

- Hal.-Kayenta Regional Water Project
- Existing Waterlines
- Former Peabody Lease Area
- Chapter Boundary 2018

NN Chapter Boundary, Navajo Land Department, 2018
NTUA Main, NTUA Pressurized Main 2022



0 5 10 15 Miles

EXHIBIT No. _____

**Navajo Water Projects
Halchita-Kayenta Regional Water Project**

Map by: NDWR, RLK 02-21-2024



NAVAJO RENEWABLE ENERGY PROJECT



- Help Navajo water development projects with energy needs



FUNDS



- **Navajo Operation, Maintenance & Replacement Fund**
 - Will cover a portion of the costs for operation, maintenance, and repair during the early years
 - Form the basis of the replacement reserve and emergency fund in the event the projects face major repairs or emergencies in the future
- **Navajo Agricultural Conservation Fund**
 - Intended to improve historically irrigated Navajo farmland
 - Includes repair of stock ponds, windmills, and wells maintenance and repair
- **Water Acquisition Fund**

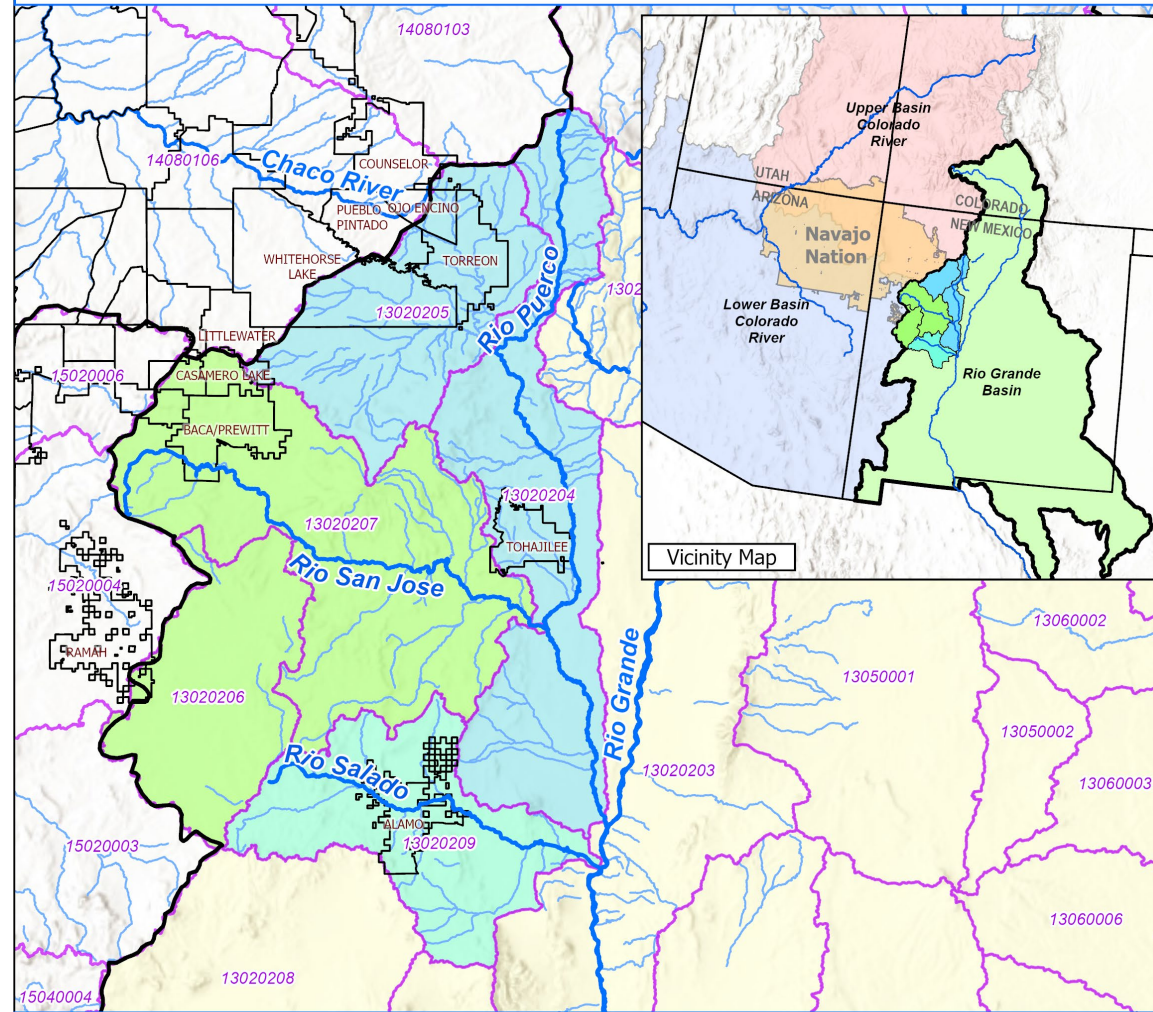


**NAVAJO NATION RIO SAN JOSÉ
STREAM SYSTEM WATER RIGHTS
SETTLEMENT ACT OF 2025**

S.565, H.R.1324

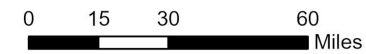


RIO GRANDE BASIN NEW MEXICO MAP



Legend

- Stream
- Rio San Jose Subbasin
- Rio Puerco Subbasin
- Rio Salado Subbasin
- Rio Grande Basin
- 8-digit USGS Hydrologic Unit Code
- Navajo Nation Chapter Boundary





SETTLEMENT PARTIES

- **Navajo Nation and Tóhajiilee Band (trust land)**
- Pueblo of Acoma
- Pueblo of Laguna
- United States of America
- State of New Mexico
- City of Grants
- Village of Milan
- Nine individual acequias and community ditches





Water Supply Conditions

- Drought conditions have impacted available water supplies



Smith Lake

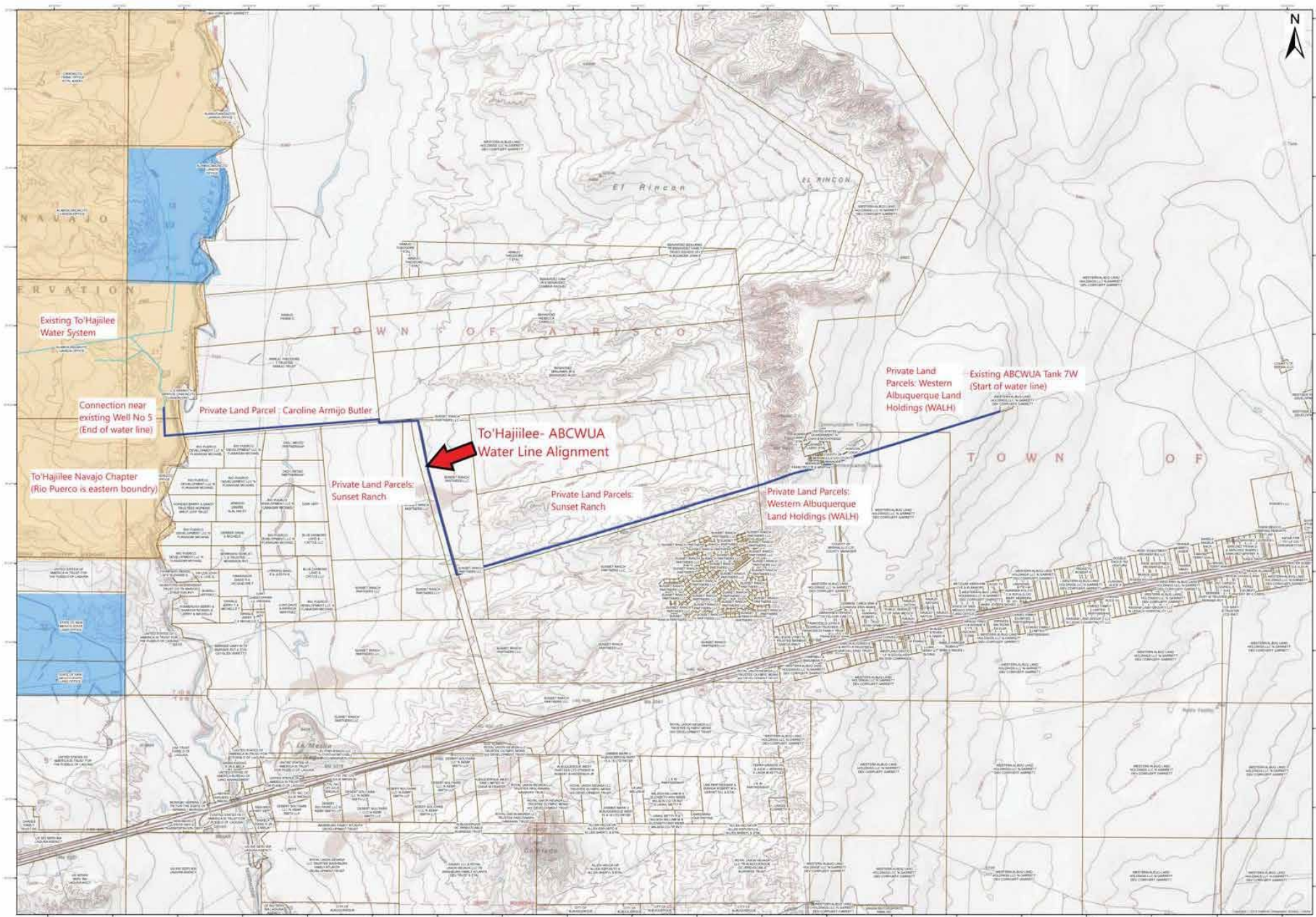


Casamero Lake



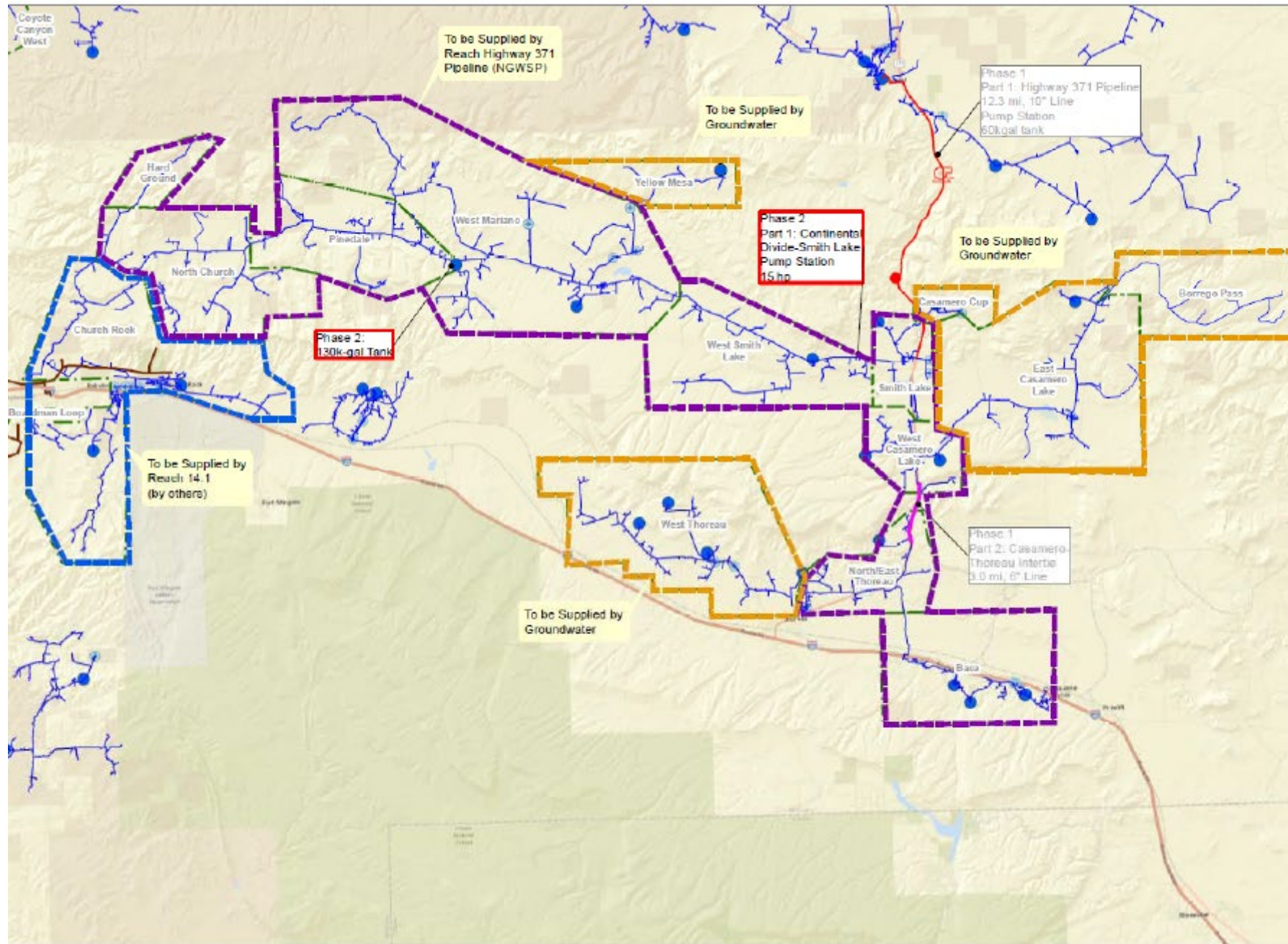
ΤÓΗΑΙΙΕΕ, ΝΜ





Tohajilee - ABCWUA Water Line Project





Highway 371/N11 Regional Water System Connection Plan

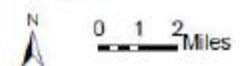
Figure 8 - Alternative 4 Phase 2

Note: All proposed alignments and pump locations are preliminary and subject to change

Delineations
 Service Zones

Proposed Project Feature
 Hwy 371 PS
 Hwy 371 Pipeline
 Hwy 371 Tank
 Casamero Lake - Thoreau Intie
 Gallup Regional (by others)

Existing Features
 NTUA Water Line
 Existing NTUA Storage Tank
 Existing NTUA Well



SETTLEMENT SUMMARY

- This Settlement will affirm and quantify the following enforceable rights to water in the Rio San José Stream System and the Rio Puerco Basin:
 - 2,444 AFY of groundwater for the two basins
 - 417 AFY for livestock use
 - 493 AFY additional storage right of for stock ponds for Rio San José Basin
 - The settlement agreement does not impact allottee water rights



SETTLEMENT SUMMARY

- This settlement will establish a \$200.271 million Navajo Nation Rio San José Settlement Trust Fund to be used for water infrastructure development, acquiring water supplies, water rights management and administration, watershed protection and enhancement, support of agriculture, water-related community welfare and economic development, and settlement implementation costs
- Settlement will also establish a \$23 million Navajo Nation Operations & Maintenance Account

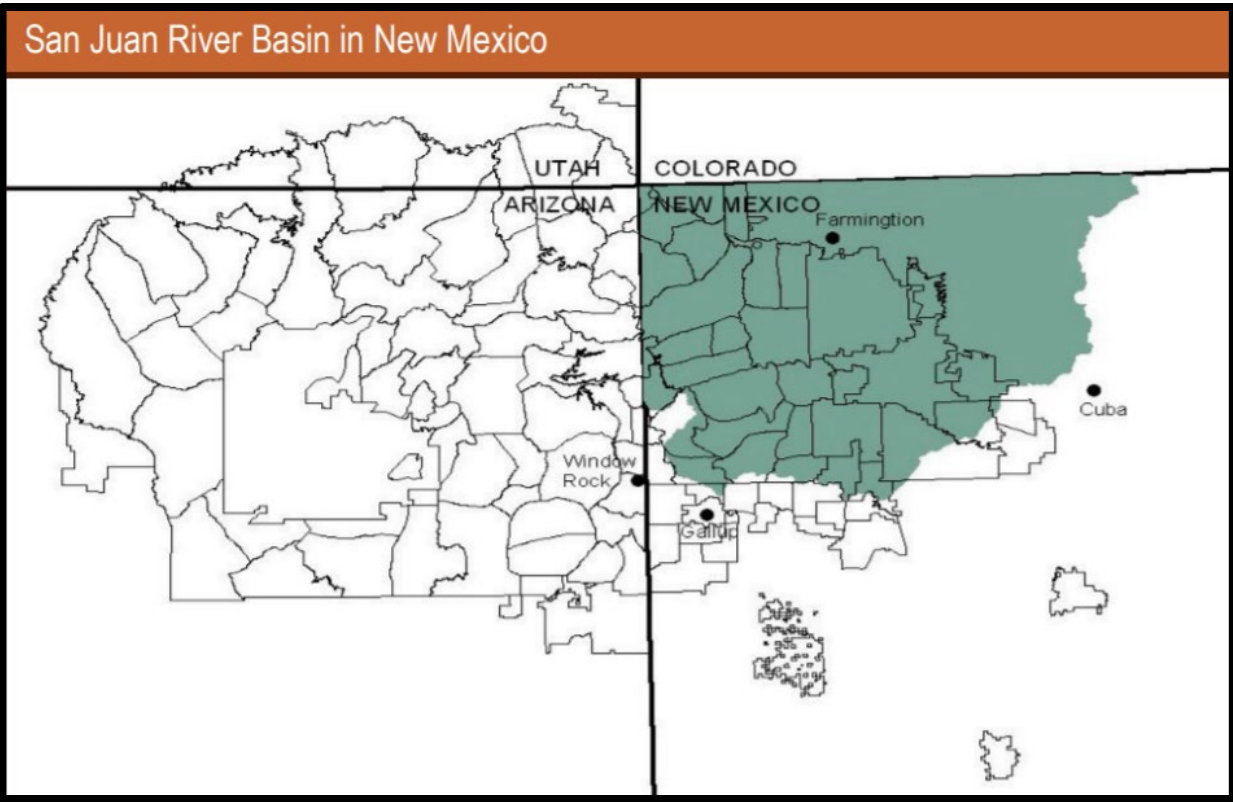




**NAVAJO-GALLUP WATER SUPPLY
PROJECT AMENDMENTS ACT OF
2025**

S. 637, H.R. 1482

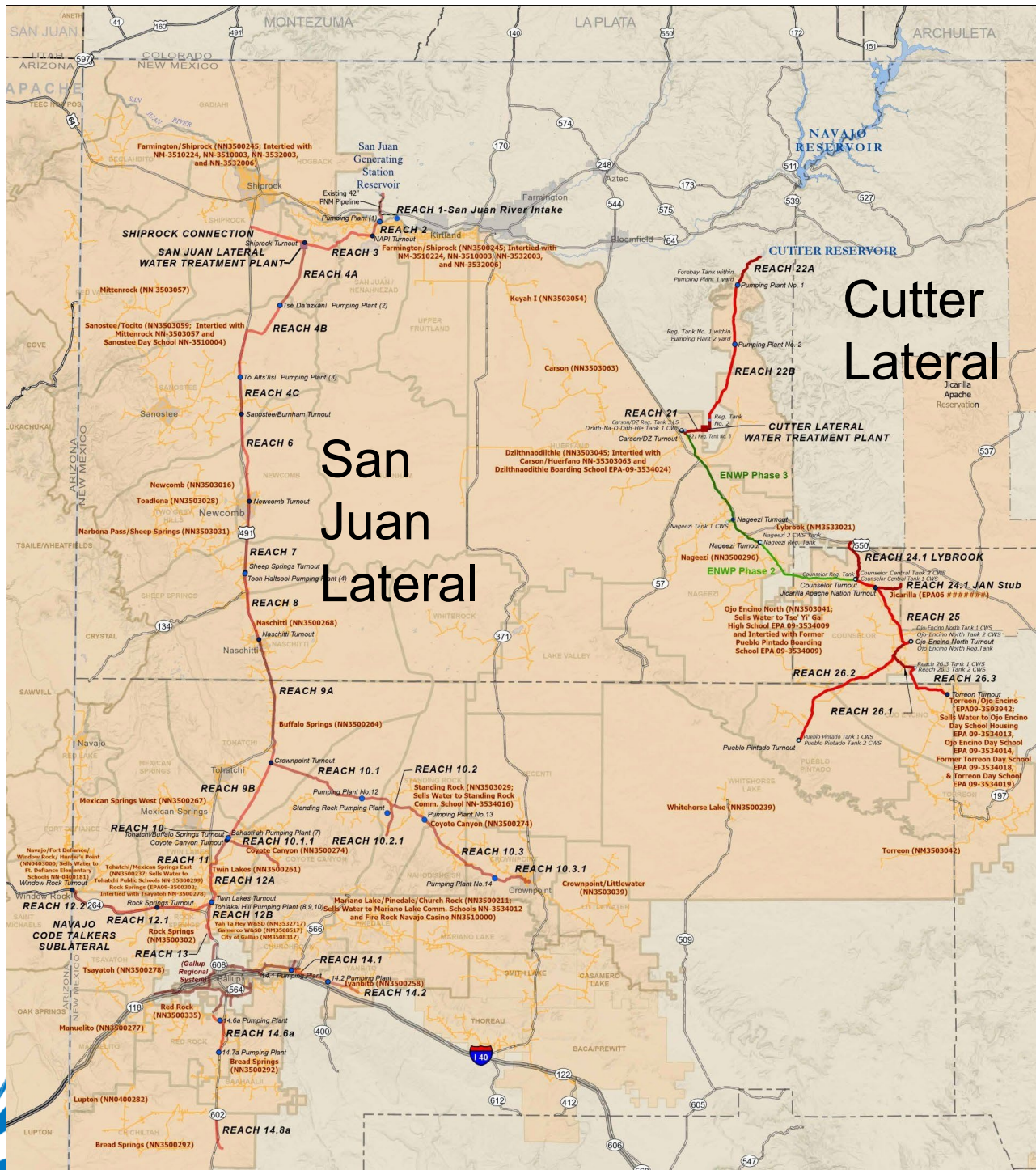




Ten Tribes Tribal Water Study 2018



NAVAJO-GALLUP WATER SUPPLY PROJECT



- Authorized under P.L. 111-11
- Beneficiaries include the Navajo Nation, Jicarilla Apache Nation, and the City of Gallup
- The purpose is to construct water transmission pipelines capable of conveying treated San Juan River water
- Total allocations 37,764 AFY

CUTTER LATERAL



Tank No. 2



Cutter Lateral Water Treatment Plant



Bahastl'ah Pumping
Plant 7

SAN JUAN LATERAL



AMENDMENTS ACT SUMMARY

- Amendments will fund completion of the Navajo-Gallup Water Supply Project. Once fully completed, it will convey a reliable municipal and industrial water supply from the San Juan River in New Mexico to (a) 40 Navajo Nation Chapters located on the eastern side of the Navajo Nation, (b) the City of Gallup, and (c) part of the Jicarilla Apache Nation.
- Amendments include a provision to allow 2,000 AFY to be diverted to Sweetwater through the NGWSP as Utah apportioned water.



KEY BENEFITS OF NAVAJO WATER SETTLEMENTS

- Substantial funding to construct the infrastructure to complete the Nation's global water supply system.
- A dynamic and adaptive global water supply system that can better withstand the drought challenge.
- Real water delivered to Navajo communities that will make water delivery in peoples' homes possible.
- Water security for our people.
- An opportunity for growth and opportunity in Navajo communities.
- A pathway home for our people.
- Confidence that we will have adequate water to remain in our homeland indefinitely.





<https://nndoj.navajo-nsn.gov/>

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