

# ENERGY-WATER NEXUS

## *The Navajo Experience*





# OVERVIEW

- The Role of Energy in the Quantification of Indian Water Rights
- The Role of Energy in the Implementation of Indian Water Rights
- The Navajo Experience



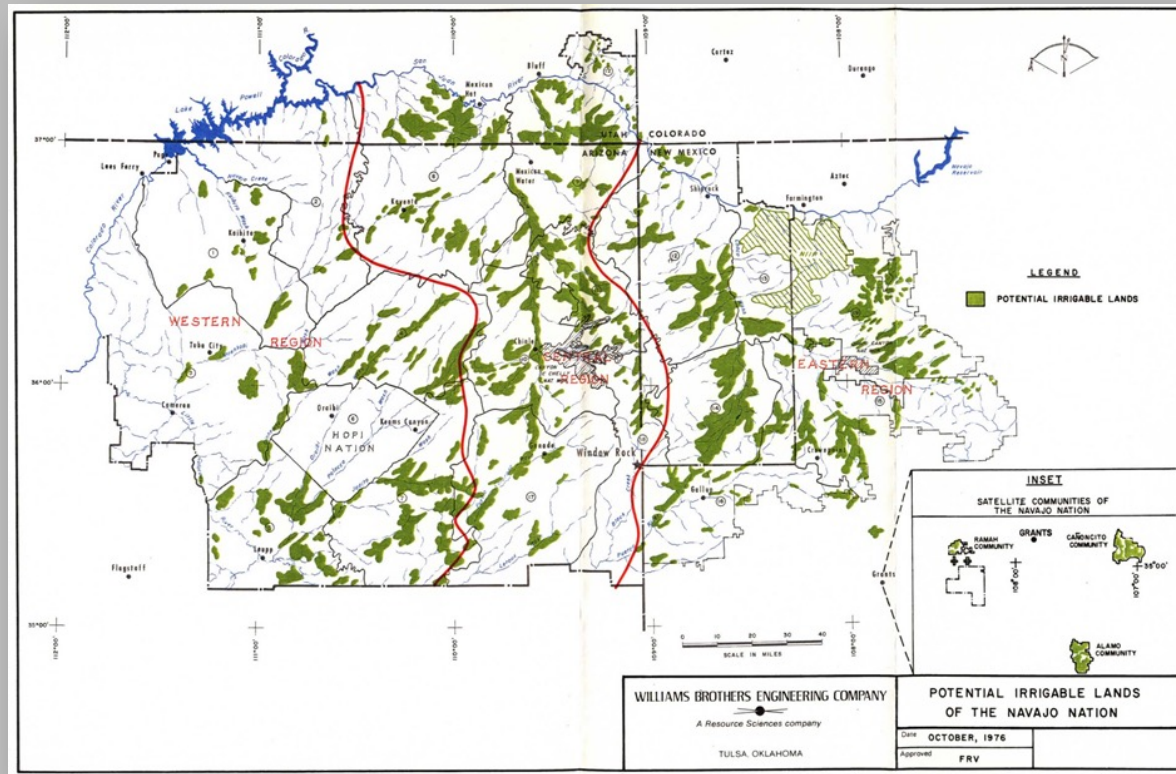


# The Role of Energy in the Quantification of Indian Water Rights

- Water is impliedly reserved to tribes in order to carry out the purpose of their reservations. *Winters v. U.S.*, 207 U.S. 564 (1908)
- “When an Indian reservation is created, the government impliedly reserves water to carry out its purpose as a permanent homeland.” *Gila River V*, 35 P.3d 68, 71 (Ariz. 2001)



- “... the only feasible and fair way by which reserved water for the reservations can be measured is irrigable acreage.” *Arizona v. California, 373 U.S. 546 (1963)*





**“When an Indian reservation is created, the government impliedly reserves water to carry out its purpose as a permanent homeland.”**

***Gila River V*, 35 P.3d 68, 71 (Ariz. 2001)**



# Quantification Criteria

- **Practicably Irrigable Acreage**  
**But, not all lands susceptible to irrigation**
- **Municipal & Domestic Uses**
- **Industrial Uses; *e.g.* Energy**





- **Mineral resources should be considered a surrogate for irrigable acreage.**
- **Practicable energy development is akin to practicably irrigable acreage.**



# **The Role of Energy in the Implementation of Indian Water Rights**

- **Energy development can be a valuable means for tribes to monetize their water rights.**
- **Water can be beneficially used for energy development while tribes grow into their full water supply for other purposes.**



**Unused tribal water will be used by entities that will continue to rely on water supplies claimed by, reserved for, needed by, and potentially belonging to tribes.**





# The Navajo Experience - NGS

## Navajo Generating Station

- Historic use of about 28,000 afy of water
- Water can be claimed as historic use in water rights quantification
- State of Arizona seeks to use this water for other purposes





# The Navajo Experience - Peabody

## Peabody Coal Mine

- Supplied coal to the Navajo Generating Station and the Mohave Generating Station
- Water used for mining and slurry operations

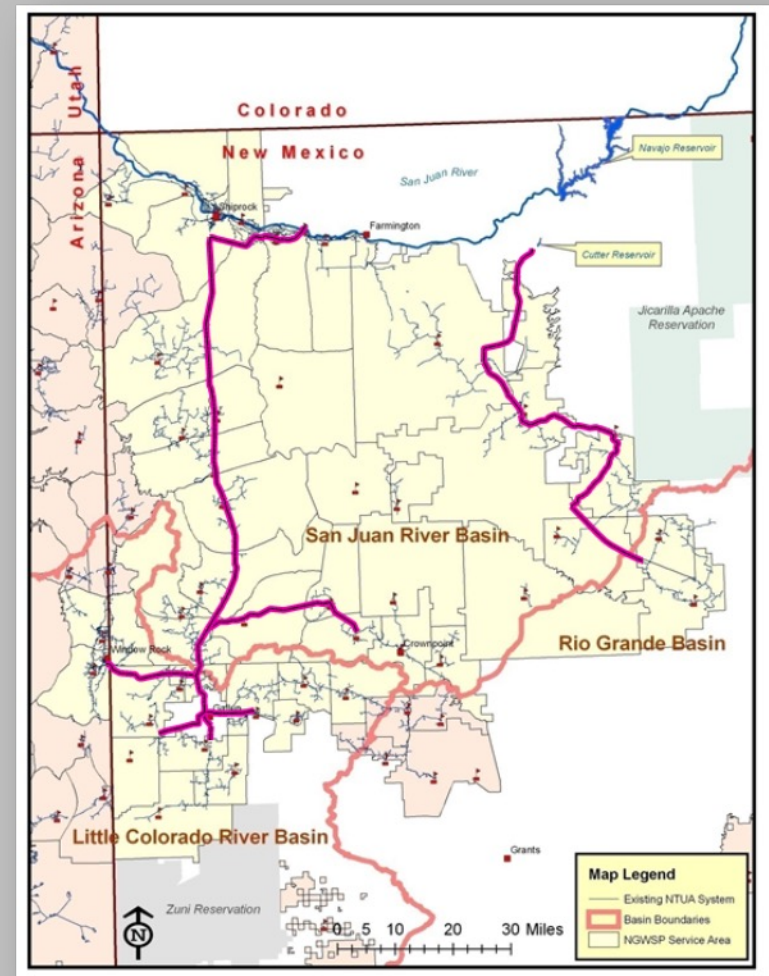




# The Navajo Experience – Desert Rock

## Desert Rock Energy Project

- Proposed power plant using state of the art pollution abatement technology
- Could have benefited municipal water use in the Navajo Gallup Water Supply Project
- Project never developed





# Opposition to Coal Mining





# Hydro Pumped Storage

