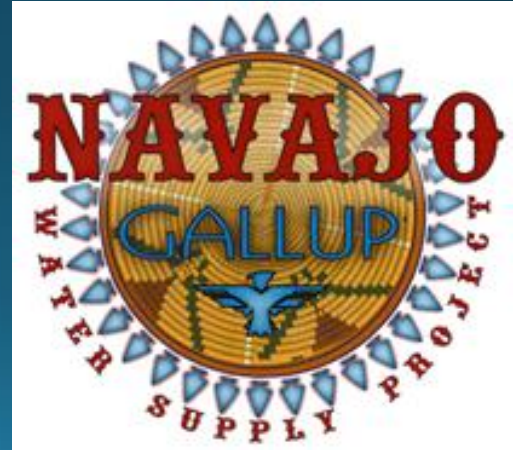


Navajo–Gallup Water Supply Project

Northwest New Mexico Council of Governments

Board Meeting

January 15, 2020





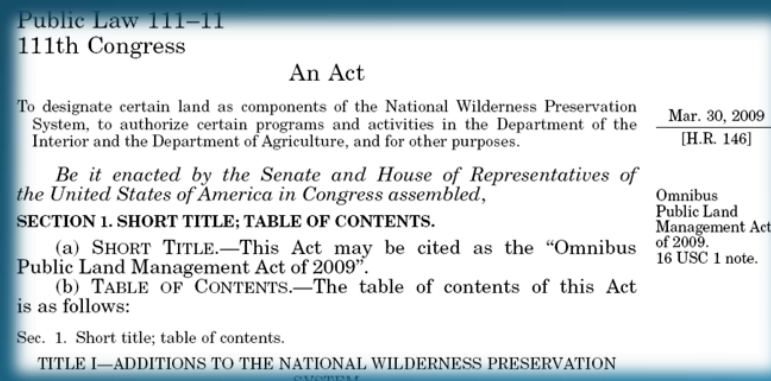
Navajo – Gallup Water Supply Project

- Background/Need/Purpose
- Project Complexities
- Status of Project
- Potential for Regionalization



Background/Need/Purpose

- Project has evolved over four decades
- Nation and State signed Settlement Agreement in 2005
- Authorized for construction in March 2009 with passage of PL 111-11
- Cornerstone of Navajo San Juan River in New Mexico Water Rights Settlement



Background/Need/Purpose

1. Key component to the San Juan Water Rights Settlement Agreement
2. Must be completed no later than December 31, 2024. We can't go past this date – if we do, we'll turn into a pumpkin, as all federal funding could go away....
3. Hefty price tag that gets adjusted once a year, and as of last October, it has a price tag of a bit over one billion dollars
4. Permitting and reviews have been accelerated for this project, so we are all moving forward fairly quickly



Background/Need/Purpose

- Provides major infrastructure to secure and convey a long-term reliable water supply for:
 - Eastern portions of the Navajo Reservation
 - Southwest portion of Jicarilla Apache Reservation
 - City of Gallup
- Project will divert 37,376 acre-feet of water annually from the San Juan River Basin
 - Convey it via approximately 280 miles of pipeline, several pumping plants, and two water treatment plants.



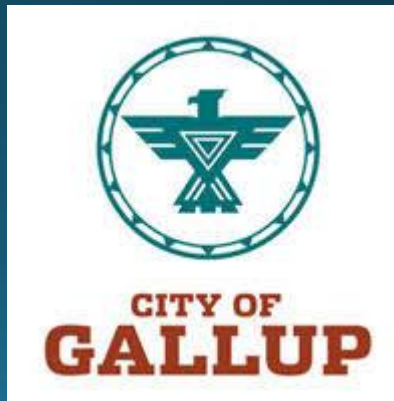
Background

- Indian Water Rights Settlements are designed to settle tribal claims to meet both current and future needs



Background

- Future needs are based on:
 - Population projections that assume increased growth rates as result of availability of water
 - Anticipated Economic Development



Background/Need/Purpose

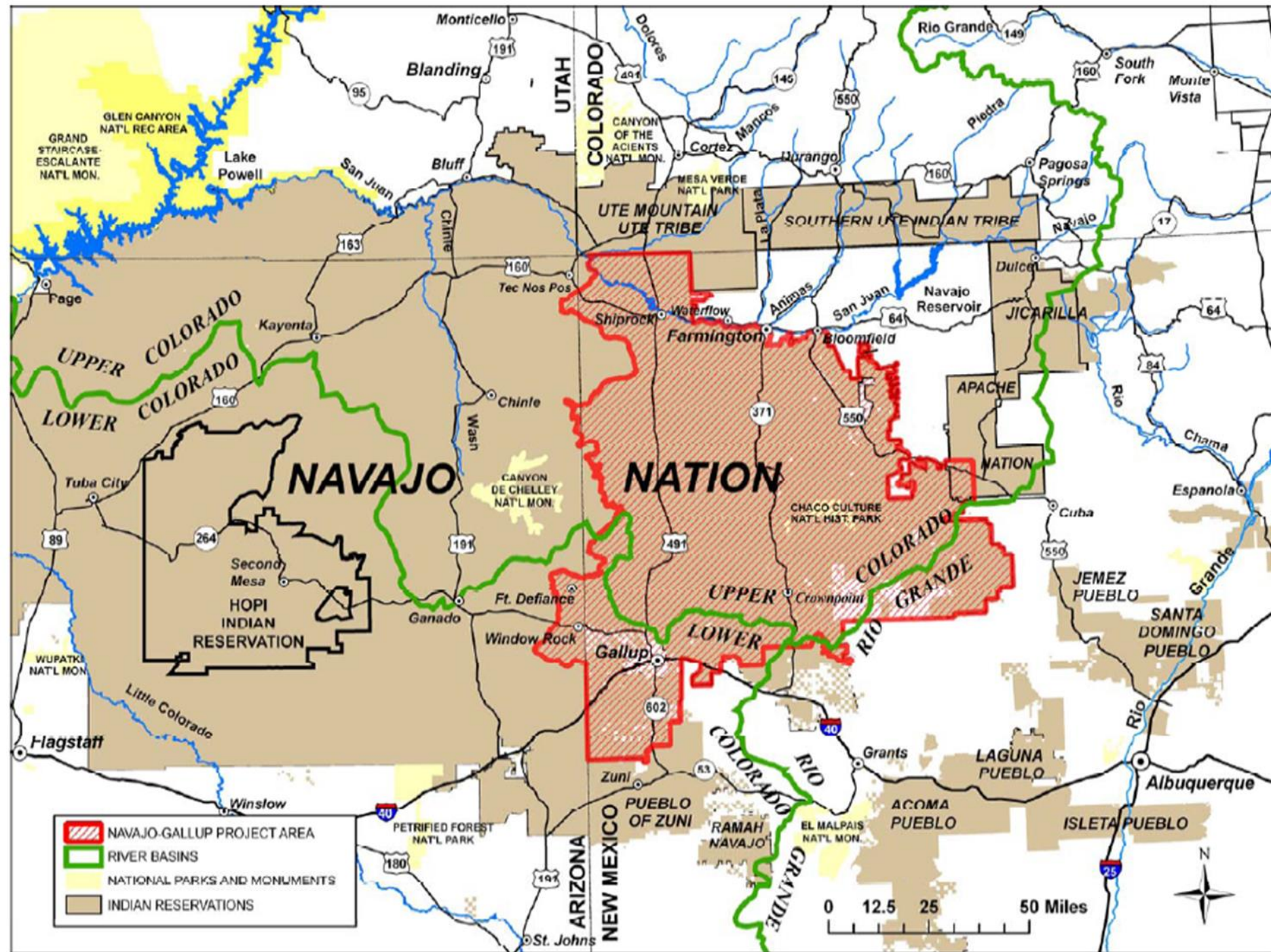
Water Supply

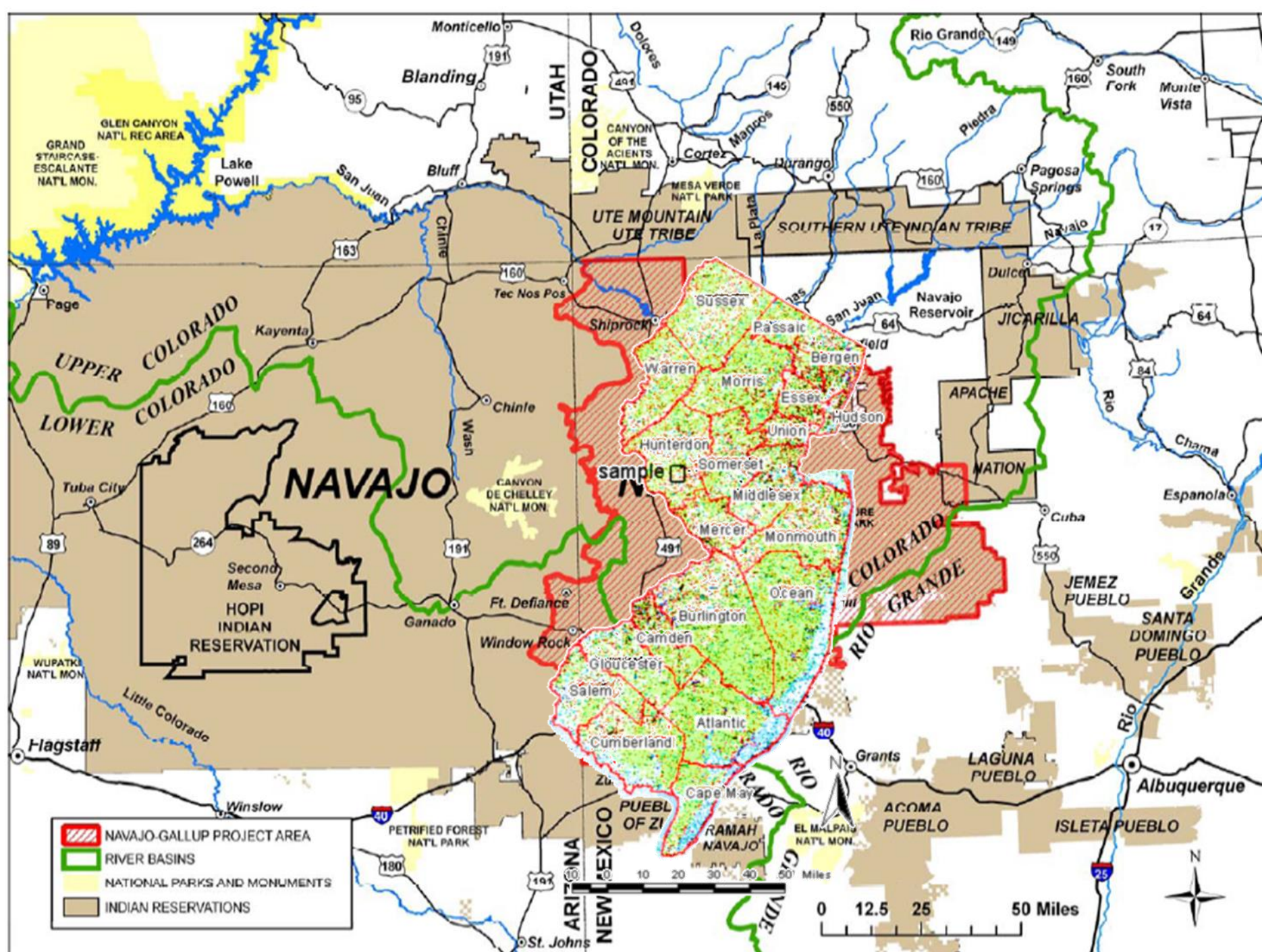
Entity	Water Allocation (Acre-Feet)
Navajo Nation	27,193
Jicarilla Apache Nation	1,200
City of Gallup	7,500

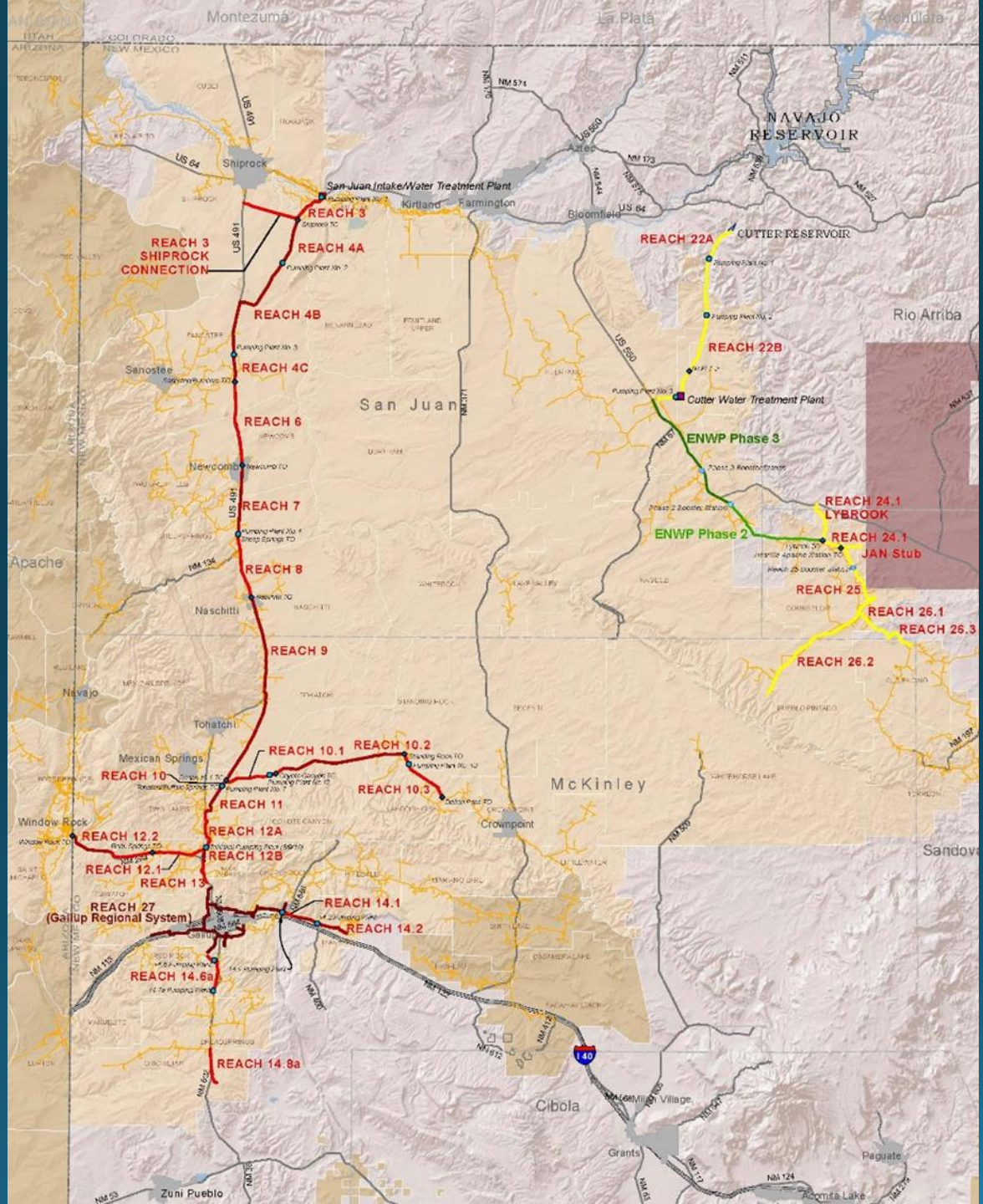


Project Cost Breakdown

Item	Cost	Comment
NGWSP Total Project	\$1.135 Billion	October 2017 Update
San Juan Lateral	\$924,235,000	Reaches 1 through 12
Gallup Rural Navajo Water Supply Project (Gallup Regional Sys)	\$73,300,000 adjusted to \$61,216,826	Reaches 13 and 27 Cost adjusted for State of NM Payment/Credit
City of Gallup Cost Share	\$64,205,121	City required to pay 35% of allocated costs (Both Gallup Regional System and portions of San Juan Lateral and Water Treatment Plant)







Project Complexities

- Project features sized for future, projected demands
 - Storage (reservoirs, tanks)
 - Pumping Plants
 - Water Treatment Plants
 - Pipelines
- Operation and Maintenance
 - Demand = Customers = Revenue \$\$
 - Water quality
 - Switching from a GW to a SW Source
- Connection Plans



Project Complexities - Funding

- Authorization Ceiling = \$870M (at 2007 price level)
- Latest Indexed Estimate = \$1.135B (at Oct 2017 price level)
- Sources of Funding
 - Discretionary (Appropriated) Funding
 - Mandatory Funding (PL 111-291)
 - NM Cost-Share (\$50M)
 - City of Gallup Cost Share (\$64M)

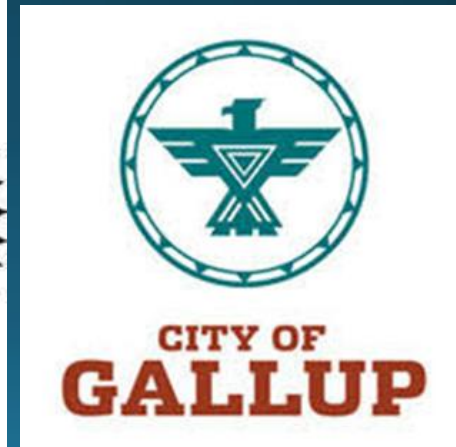
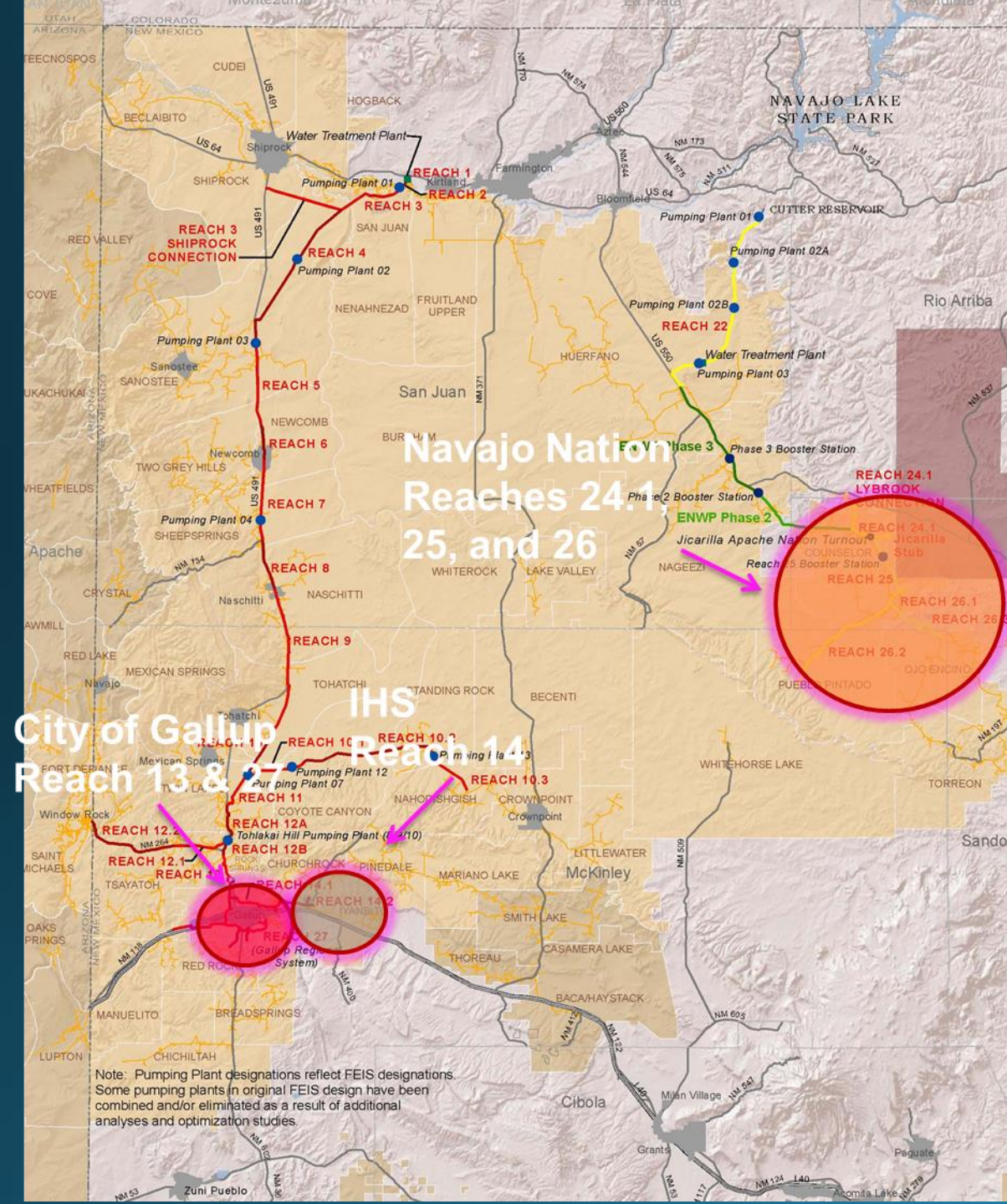


Project Complexities

- Facilities designed/constructed by others with Reclamation \$ through Financial Assistance Agreements (FAA's)
 - Navajo Nation
 - City of Gallup
 - Indian Health Service
 - Western Area Power Administration



Ongoing Design and Construction Via Financial Assistance Agreements (FAAs) with USBR Partners



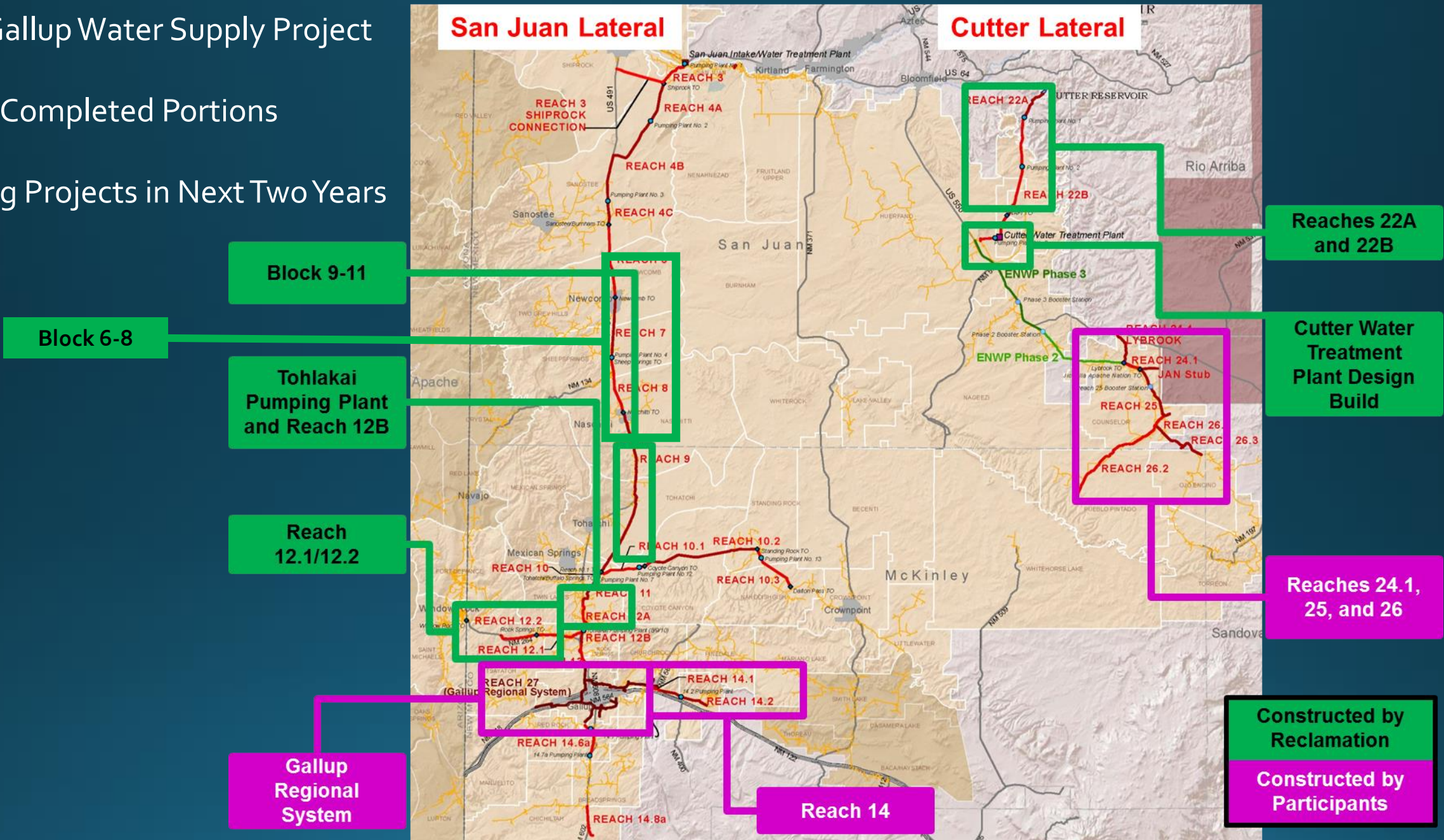
Construction Update



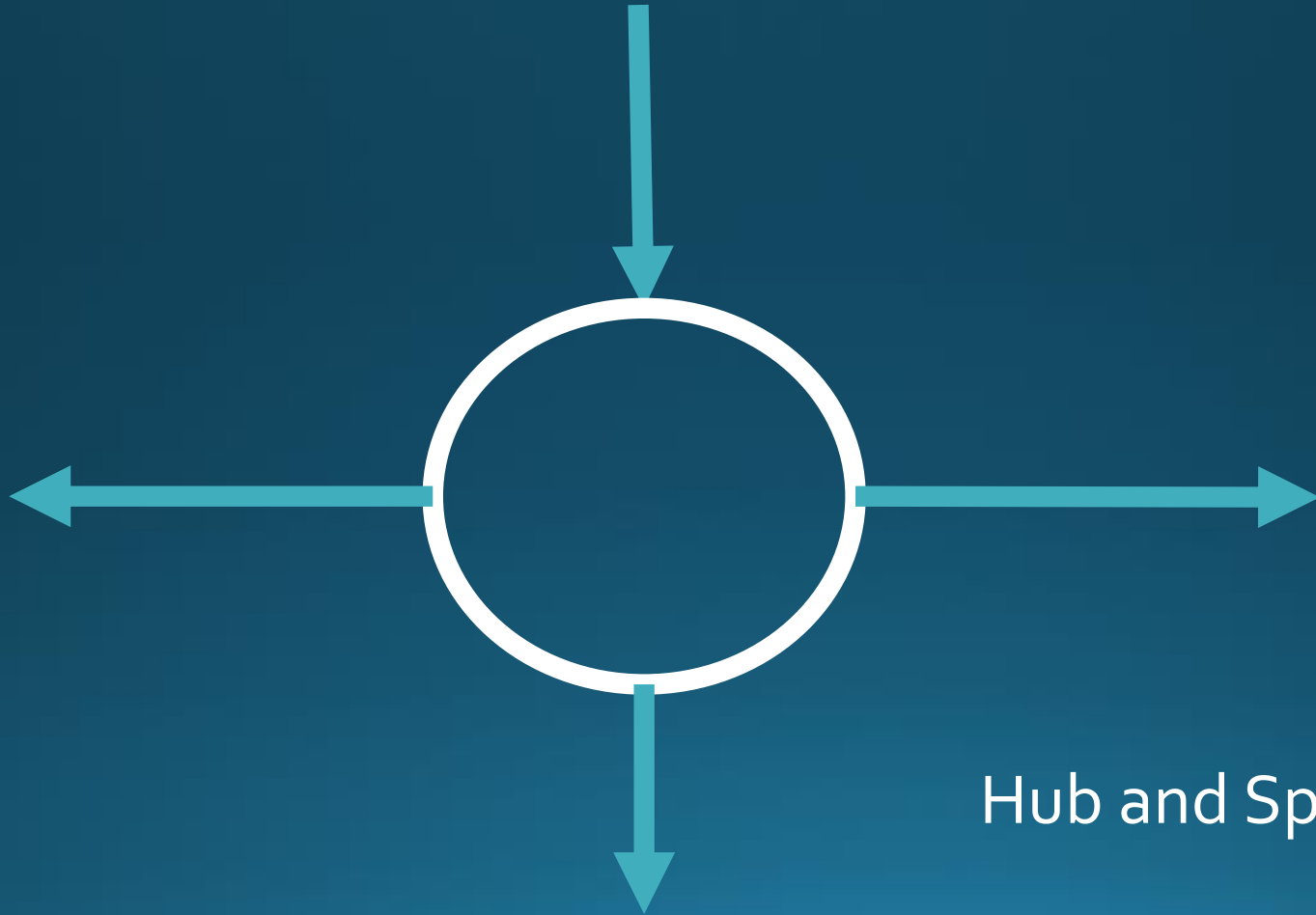
Navajo-Gallup Water Supply Project

Recently Completed Portions

Upcoming Projects in Next Two Years

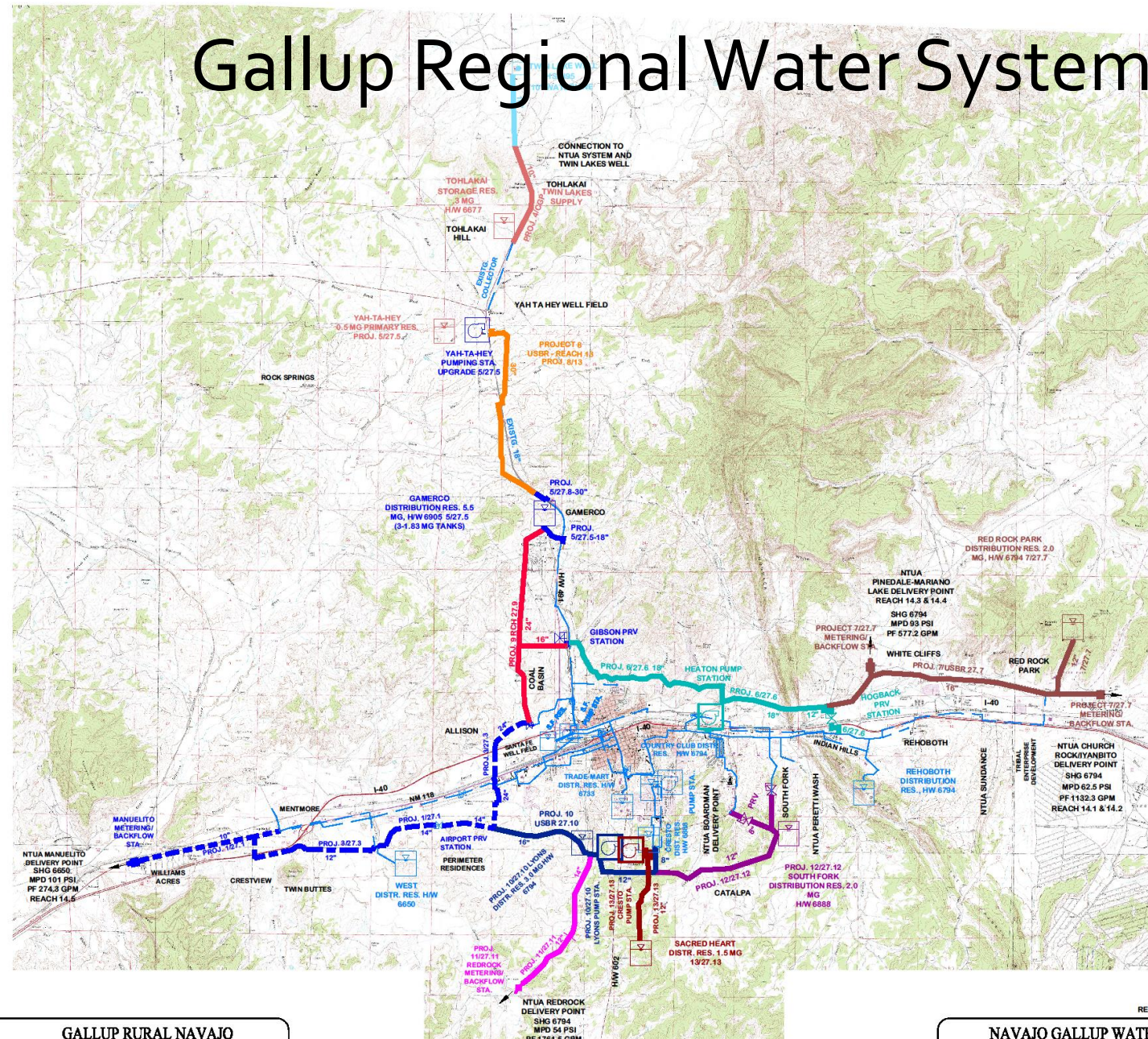


Gallup Regional Water System



Hub and Spoke Concept

Gallup Regional Water System



LEGEND:

- COMPLETED TRANSMISSION LINE
- PROJECT TRANSMISSION LINE
- EXISTING CITY WATER MAIN
- CITY PROJ. NO./USBR REACH NO.
- EXISTING PRESSURE REDUCING VALVE
- EXISTING WATER STORAGE RESERVOIR
- EXISTING PUMP STATION
- NEW PRESSURE REDUCING VALVE
- NEW WATER STORAGE RESERVOIR
- NEW PUMP STATION

SHG 6794 STATIC HYDRAULIC GRADE W/ FULL RESERVOIR
 MPD 93 PSI MIN. PRESSURE @ PEAK DEMAND (YR. 2040)
 PF 274.3 GPM PEAK DELIVERY FLOW (YR. 2040)

NAVAJO GALLUP WATER SUPPLY PROJECT GALLUP RURAL NAVAJO WATER SUPPLY PROJECT

GRNWSF PROJECT NO.	NGWSP USBR REACH	DESCRIPTION
1	27.1	10", 14" AND 24" WATERLINE, WATER LOADING STATION, NTUA CONNECTION FOR MANUELITO CHAPTER
2	CGP	TWIN LAKES WELL, IHS-N95 AND 10" WATER TANK NTUA SYSTEM
3	27.3	12" AND 24" WATERLINE FOR DELIVERY OF WATER THROUGH CITY SYSTEM
4	CGP	10" WATERLINE FROM TWIN LAKES WELL, 0.3 MG NTUA DISTRIBUTION STORAGE.
5	27.5	GAMERCO TANK (5.5 MG), YAH TA HEY PUMP STATION UPGRADE, 30" & 18" WATERLINES, GIBSON PRV STATION AND 0.5 MG CITY PRIMARY STORAGE
6	27.6	18" & 12" WATERLINES, HEATON PUMP STATION AND HOGBACK PRV STATION
7	27.7	16" WATERLINE TO CHURCHROCK, 12" WATERLINE & 2.0 MG STORAGE TANK AT RED ROCK PARK. CONNECT NTUA SERVICE FOR MARIANO LAKE, PINEDALE, CHURCHROCK & IVANBITO.
8	13	30" WATERLINE YAH TA HEY TO: GAMERCO TANK
9	27.9	24" & 16" MAIN WATERLINE FROM GAMERCO TANK
10	27.10	16", 12", & 8" WATERLINE, 3.0 MG STORAGE TANK AND PUMP STATION
11	27.11	12" & 14" WATERLINE TO RED ROCK, BREAD SPRINGS & CHICHLTAH.
12	27.12	12", 10" AND 8" WATERLINE, 2.0 MG STORAGE TANK, AND TWO-PRV STATIONS
13	27.13	12" WATERLINE AND 1.5 MG STORAGE

REVISED: NOV. 2012

FIGURE 2

GALLUP RURAL NAVAJO
 WATER SUPPLY PROJECT

NAVAJO GALLUP WATER
 SUPPLY PROJECT

DePauli Engineering & Surveying LLC
 - Civil Engineers and Land Surveyors -
 307 South 4th Street, Gallup, NM 87301
 Tel: (505) 663-5140 ce@depauli.com



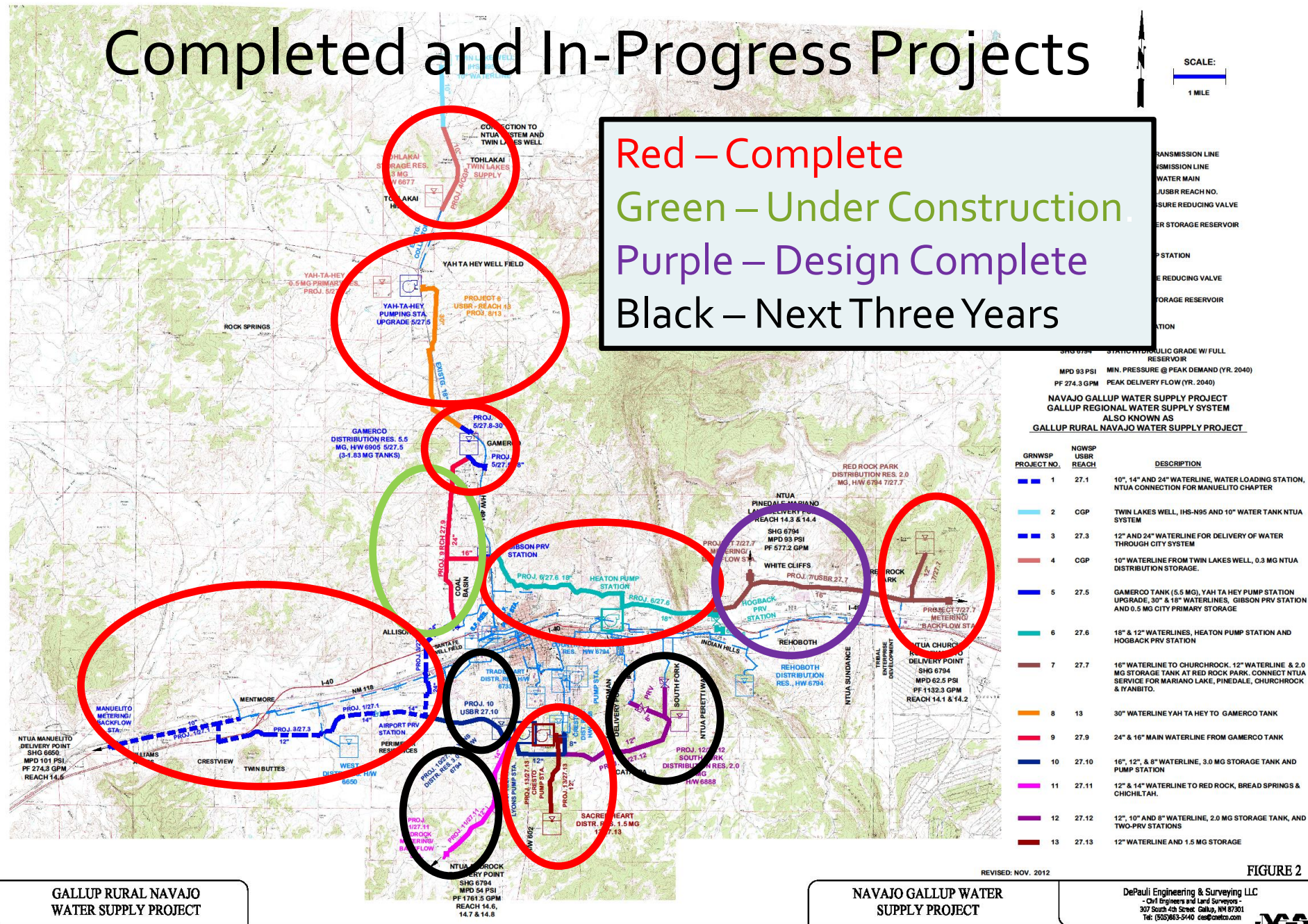
Completed and In-Progress Projects

Red – Complete

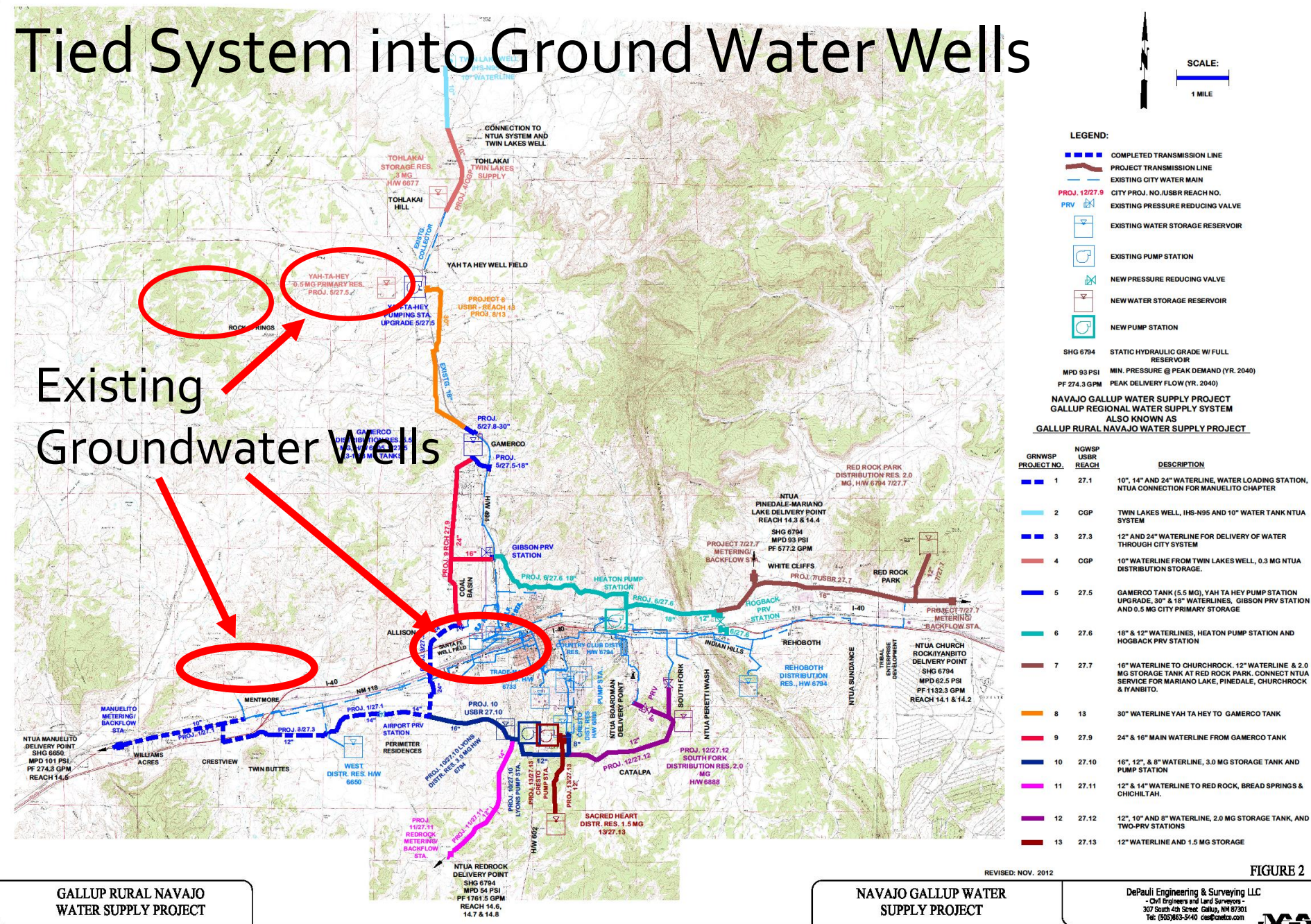
Green – Under Construction

Purple – Design Complete

Black – Next Three Years



Tied System into Ground Water Wells



Gallup Regional System Completed Projects

Reach	Award Date		Final Field Cost
27.1	January 2008		\$3,128,207
27.3	January 2010		\$2,262,237
27.5	September 2013		\$6,872,399
27.6	April 2018		\$7,638,362
27.7A	September 2017		\$3,216,912
27.13	September 2017		\$3,327,983
13	July 2014		\$5,836,694
		Totals	\$32,282,794

Construction Progress Photos

Block 9-11

3/8" pipe embedment
material placement.
Material is placed up to
7/10th of pipe O.D (48-
inch pipe).

5/6/2019



Block 9-11
View of overall
pipe construction
(48-inch pipe)

3/12/2019



Block 9-11

Contractor applying
wax-based cure
at Sta 91188+00.

5/2/2019



Block 9-11

Inspection of 42-inch
pipe to measure
horizontal and
vertical deflections.

5/9/2019



View of Cutter Water Treatment Plant site - 5/2/2019



Reach 21

Treated Water Pump Station – placing concrete foundation.

4/4/2019

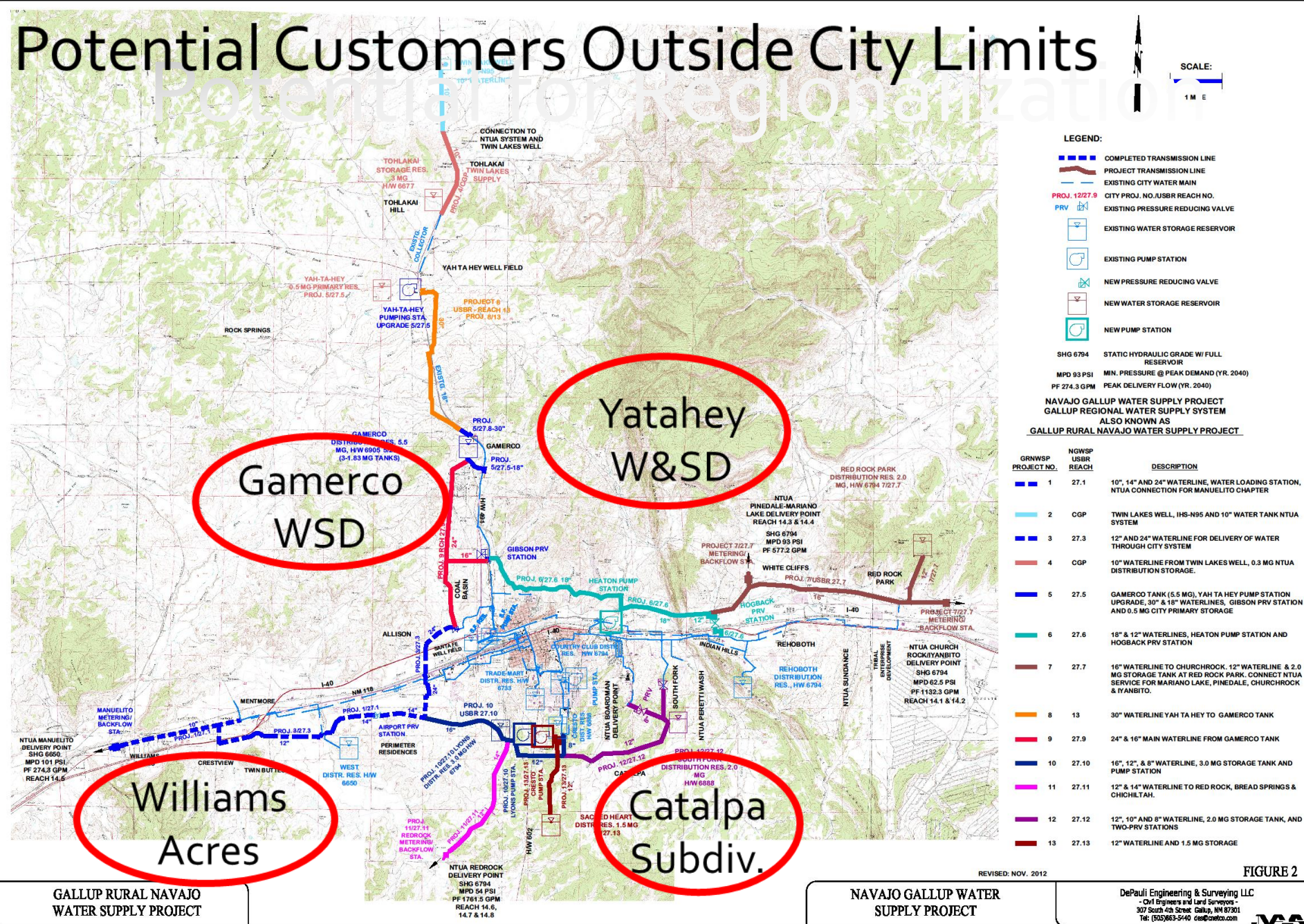


Potential for Regionalization



- McKinley County Contributions
 - \$1 million per year toward City of Gallup NGWSP Debt Service
- Question Pending
 - Will Organizations in Unincorporated McKinley County Stand Alone or Form Regional Organization?
 - Gameraco Water and Sanitation District
 - Willams Acres Water Co-op
 - Catalpa Hills Subdivision
 - Yatahey Water and Sanitation District
 - White Cliffs
 - Thoreau Waster and Sanitation District

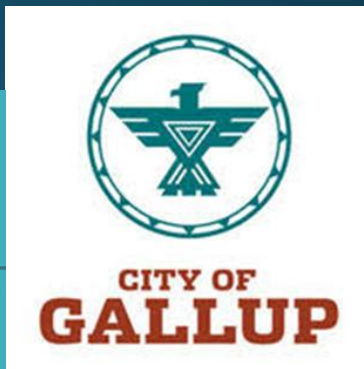
Potential Customers Outside City Limits



**CITY OF
GALLUP**

McKinley County Comprehensive Plan

- Water Element - Promote a regional “Water Commons” approach to water planning and development
- Strategies may include:
 - Update Region 6 Water Plan
 - Collaboration with City of Gallup, Navajo Nation and State of New Mexico
 - County Water Board - Activation



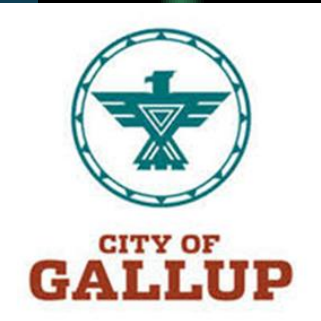


McKinley County Water Board

- Development of an interim program to augment water supply and achieve conservation milestones, pending completion of NGWSP in 2024, in collaboration with regional partners
- Prioritization of County water infrastructure investments
- Coordination with NTUA, Indian Health Service, Bureau of Indian Affairs on the Navajo Reservation on planning for efficient and nonduplicative water system development and inter-ties

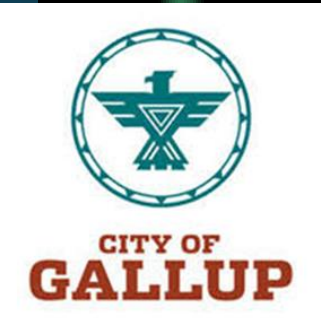
Regionalization Partners

- State of New Mexico
- Northwest New Mexico Council of Governments
- McKinley County
- City of Gallup
- Water and Sanitation Districts
- MDWCAs



Regionalization

- Decide on Approach
- Organize
- Path Forward
- Execute



Wrap-up

- Navajo-Gallup Water Supply Project is...
 - The construction of a pipeline to provide an M&I water supply
 - High priority project for the Department of Interior, State of New Mexico, Navajo Nation, Jicarilla Apache Nation and City of Gallup
 - Protecting and respecting natural and cultural resources
 - Providing economic development and job opportunities



References

- USBR Project Dashboard
 - <https://www.usbr.gov/uc/rm/navajo/nav-gallup/>
- Utton Transboundary Center – 2013 Paper – good background
 - <http://uttoncenter.unm.edu/pdfs/Water-Matters-2013/Navajo-Gallup%20Water%20Supply%20Project%20.pdf>
- Region 6 Water Plan
 - <http://www.nwnmcog.com/regional-water-planning-region-6-water-plan.html>
- McKinley County Comprehensive Plan
 - <https://www.co.mckinley.nm.us/DocumentCenter/View/949/McKinley-County-Comprehensive-Plan->

Q&A

