



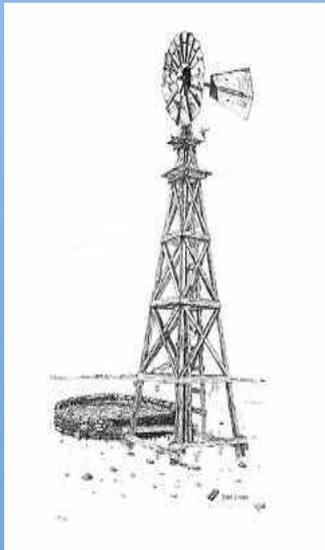
Navajo Nation Technical, Construction & Operations Branch

**Resources and Development Committee
Public Meeting**

**“Condition of the Land, Public Input, NN
Agriculture Plan”**

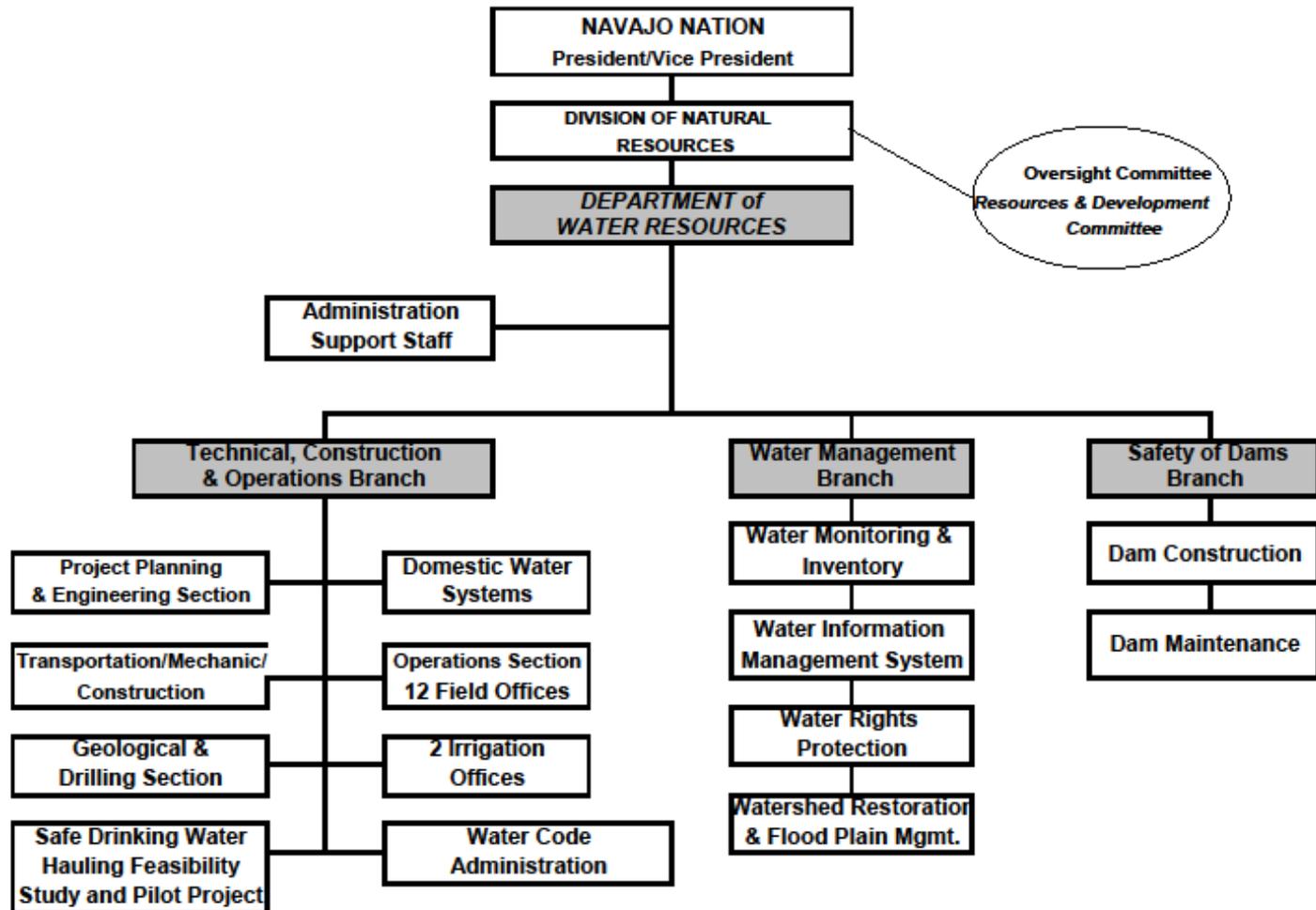
Firerock Casino, Churchrock, NM

Friday, July 13, 2012

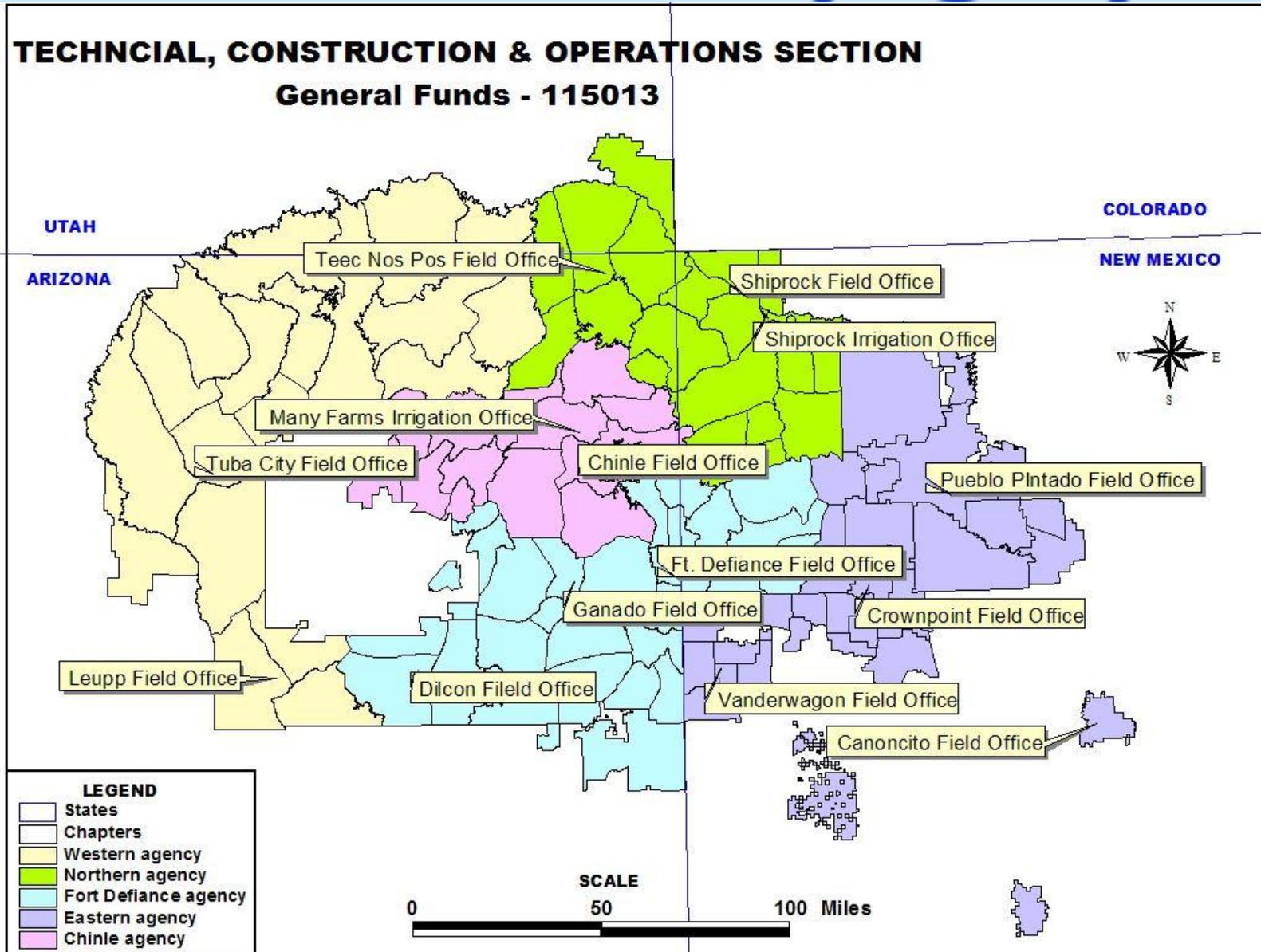


Organization Chart

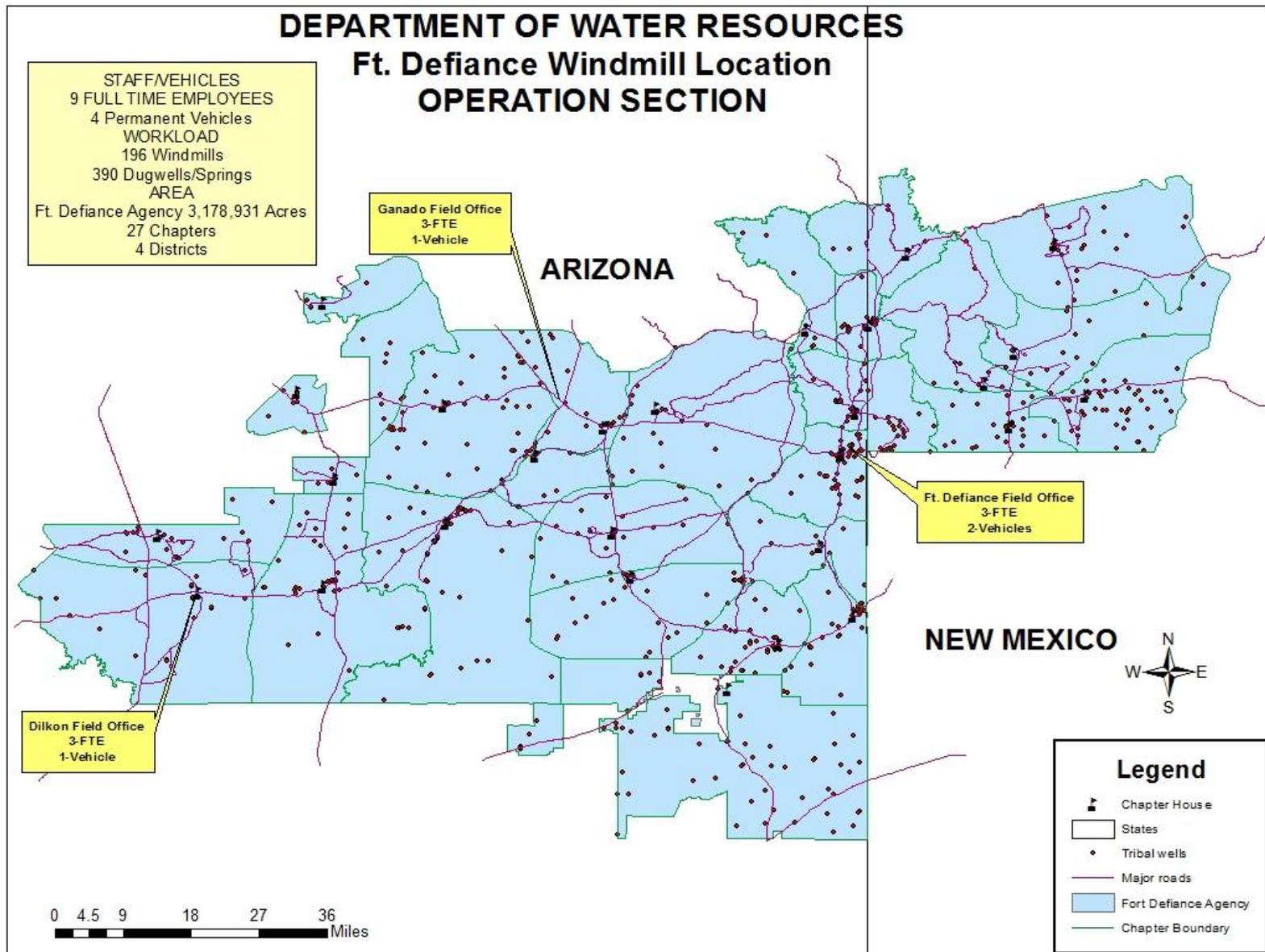
ORGANIZATIONAL CHART Department of Water Resources



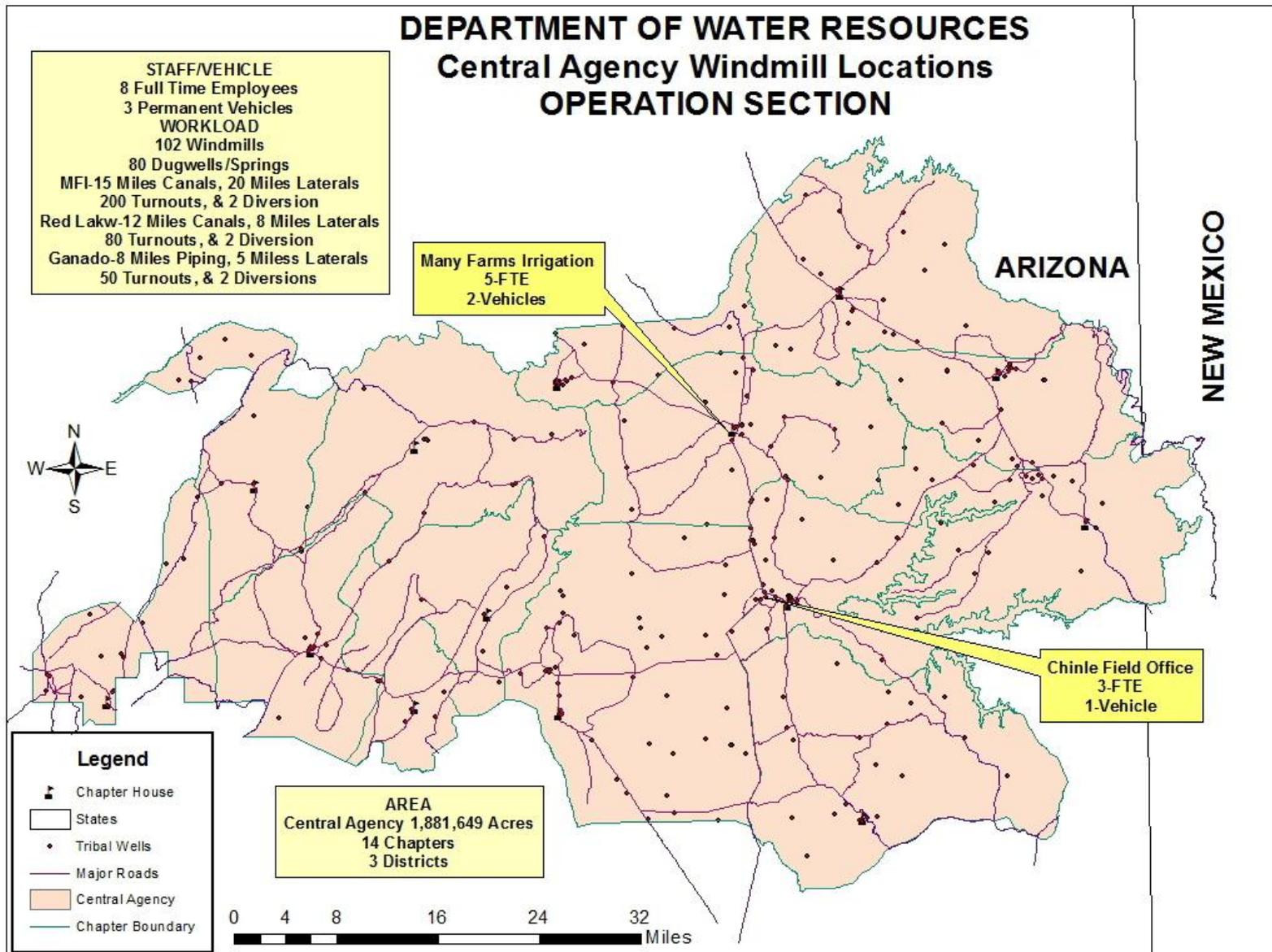
Field Office location by Agency



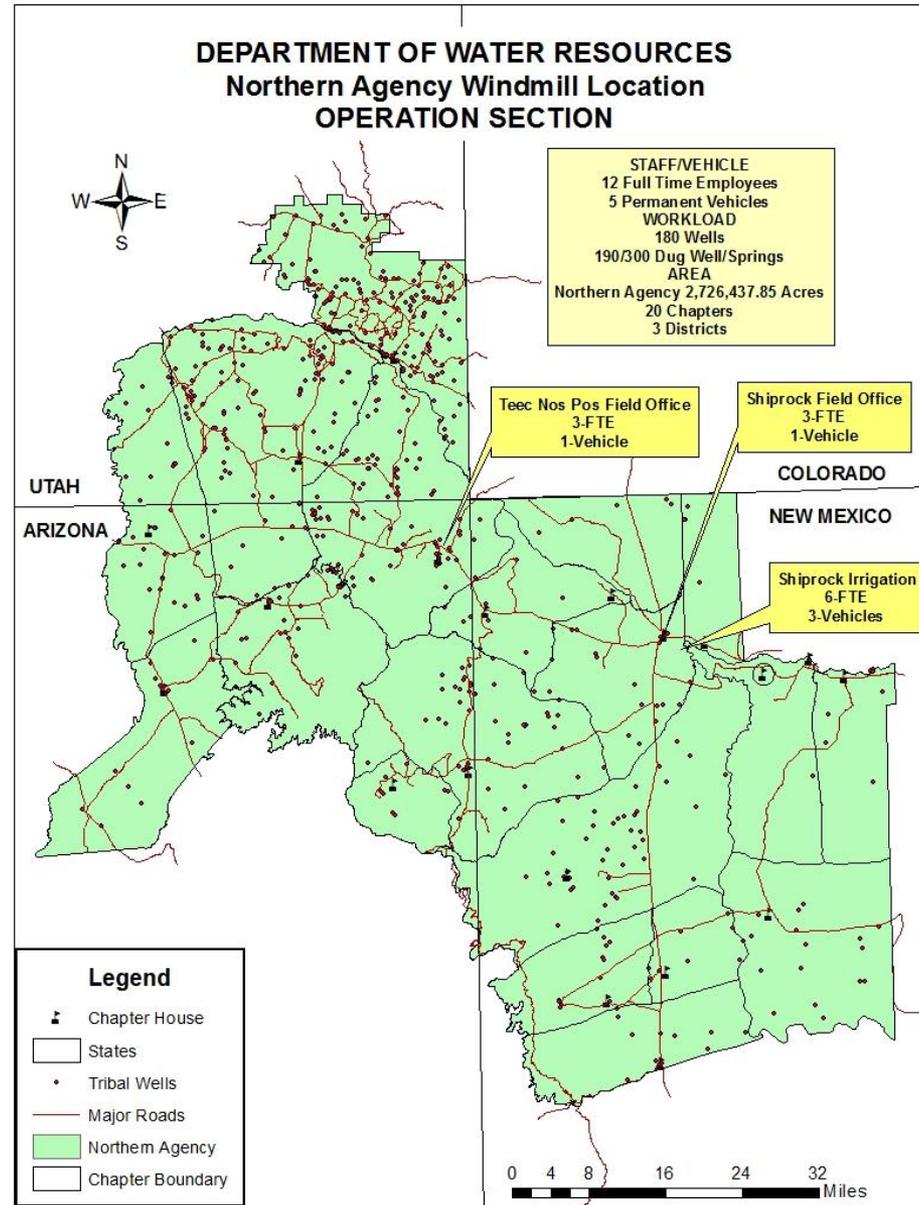
Agency Workload – Ft. Defiance



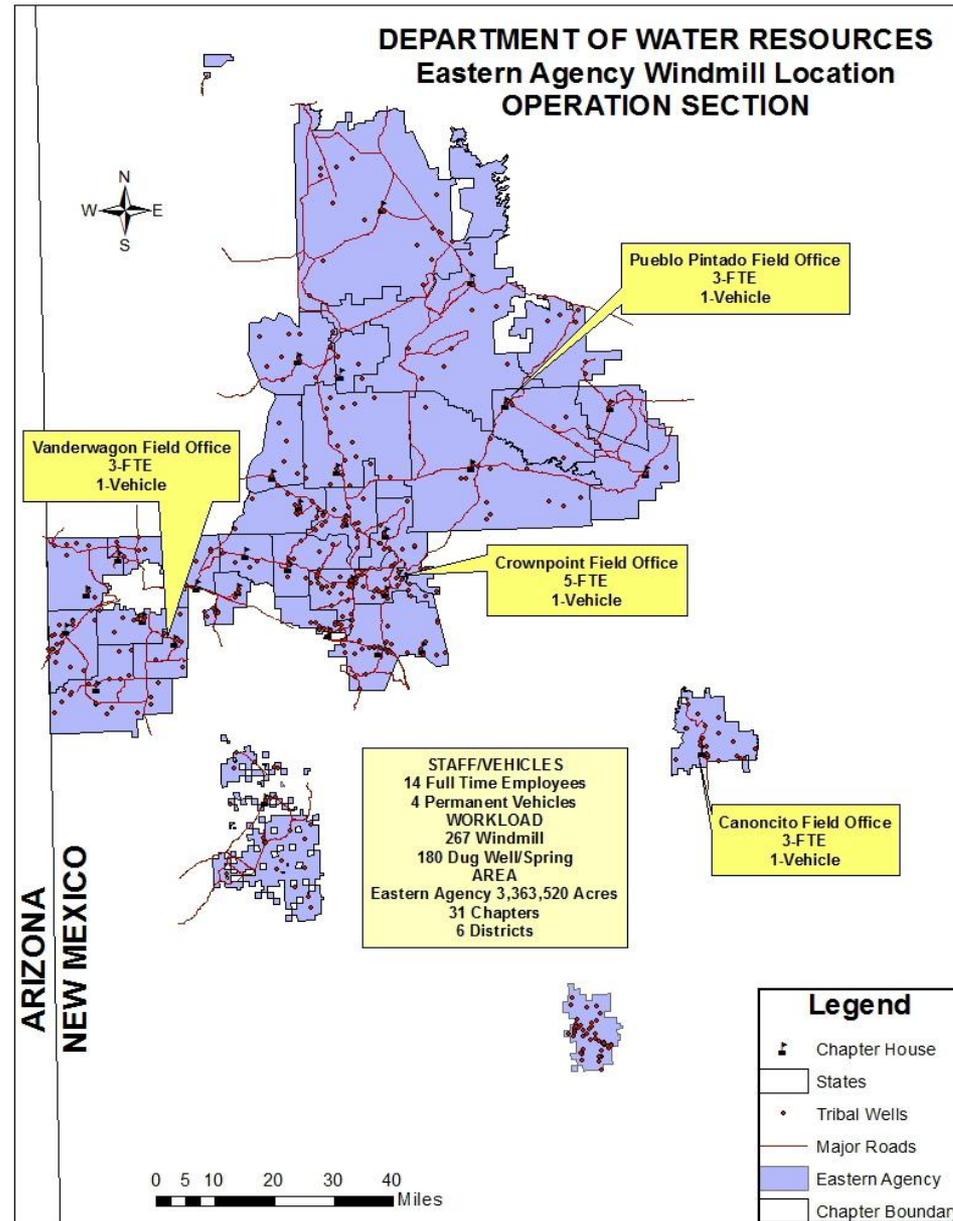
Agency Workload - Central



Agency Workload - Northern



Agency Workload - Eastern



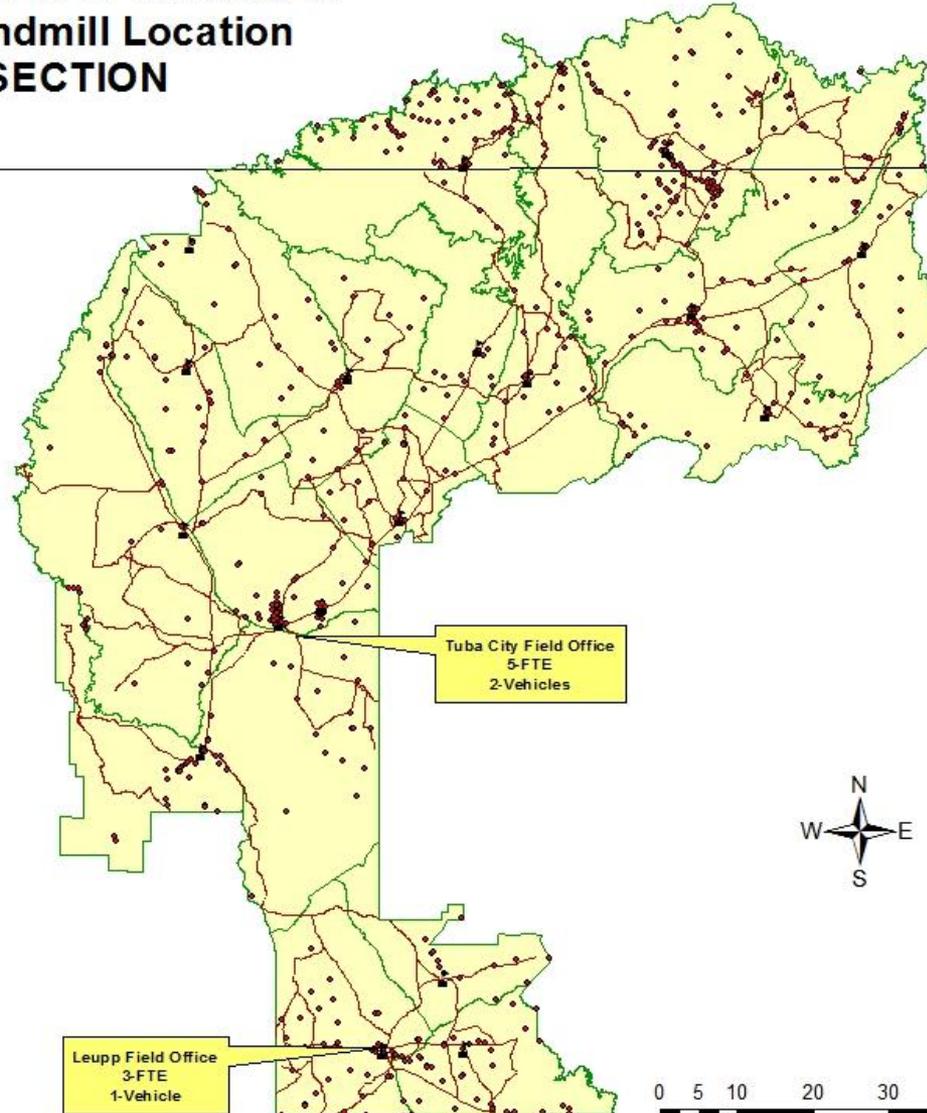
Agency Workload - Western

DEPARTMENT OF WATER RESOURCES Western Agency Windmill Location OPERATION SECTION

UTAH

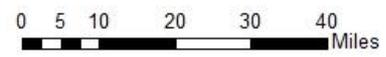
ARIZONA

STAFF/VEHICLES
8 Full Time Employees
3 Permanent Vehicles
WORKLOAD
136 Windmills
100/433 Dugwells/Springs
2 Community Water Systems
AREA
Western Agency 5,559,621 Acres
18 Chapters
5 Districts



Tuba City Field Office
5-FTE
2-Vehicles

Leupp Field Office
3-FTE
1-Vehicle



Legend

- Chapter House
- States
- Tribal Wells
- Major Roads
- Western Agency
- Chapter Boundary



Livestock Windmill Pumping facility



Livestock Windmill Pumping facility



Livestock Windmill Maintenance Crew



Livestock Windmill Maintenance Plan Including Cost

**Department of Water Resources
 Technical, Construction and Operations Branch
 BU#115013 – Operation & Maintenance Program
 FY-2012 Additional Budget Request**

<u>Current Unmet Needs Request</u>		<u>Additional Request</u>	<u>Current Unmet Needs</u>	<u>Remarks</u>
2110 Personnel	56,876		56,876	Temporary employment To purchase pipes, sucker rods, valves, well cylinders, fittings, tires, tubes, fuel, lubricants, leather cups, compressed gas, cement, storage tanks, troughs, PE pipe, etc. No furniture.
4000 Supplies	415,524	1,124,221	1,539,745	
6000 Repairs/Maint.	750,000	436,331	1,186,331	To purchase repair parts for windmills, solar units, submersible pumps, pump jacks, cutting torch, welders, generators, cement mixer, etc.
7000 Special Transaction	80		80	Insurance premium
9000 Capital Outlay	405,000	240,000	645,000	To purchase Smeal Rigs for Dilkon, Canoncito and Chinle
TOTAL	1,627,480	1,800,552	3,428,032	

Continue - Livestock Windmill Maintenance Plan Including Cost

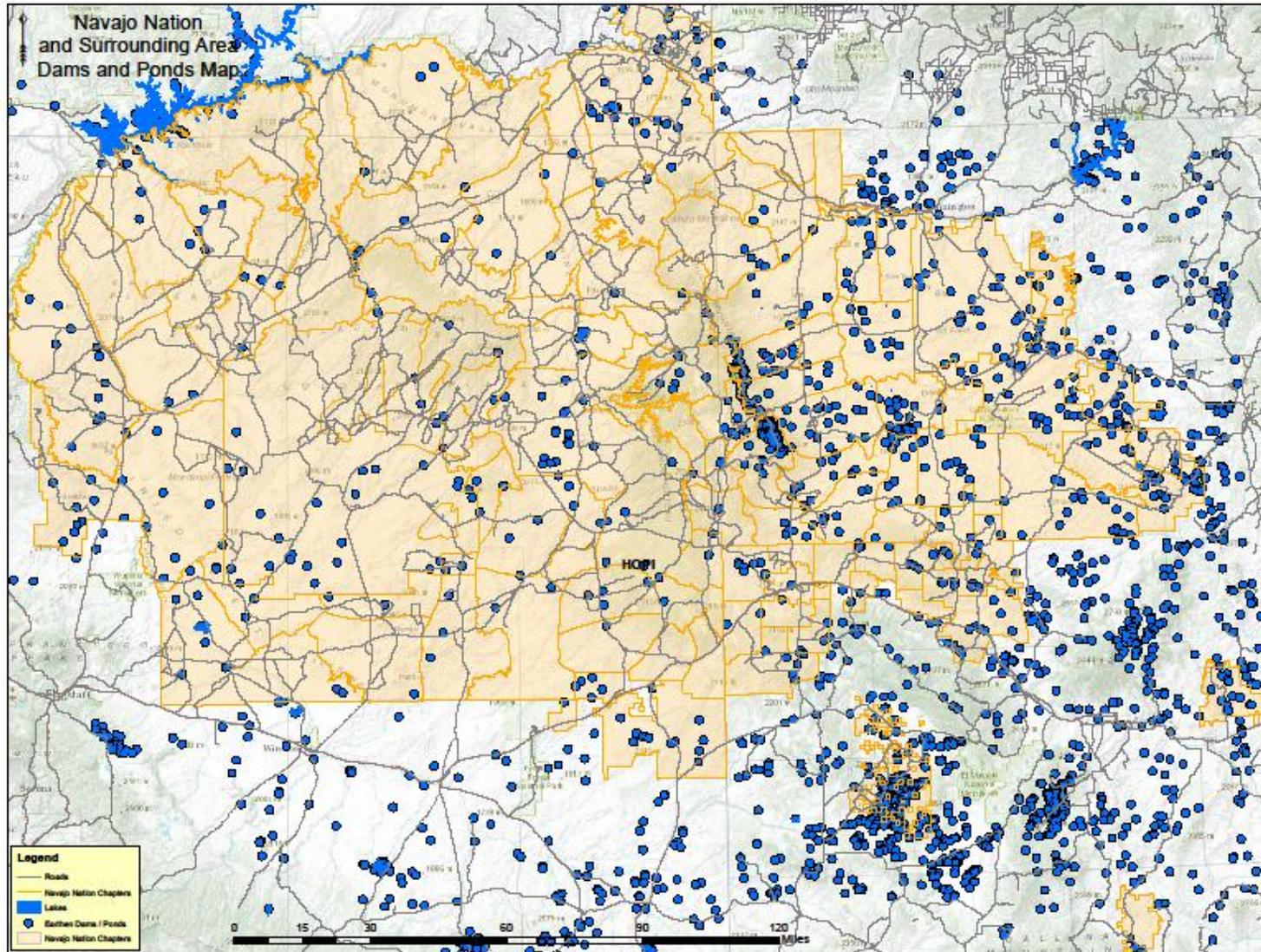
These funds are being requested by 14 Field Offices located in Chinle, Ganado, Dilkon, Vanderwagon, Crownpoint, Pueblo Pintado, Canoncito, Shiprock O&M, Shiprock Irrigation, Many Farms, Teecnospos, Leupp, Tuba City, and Fort Defiance. The Field Office/Station provide direct services to all Navajo Nation Chapters mainly through repair and maintenance of over 900 windmills, 1200 dug wells and 6 irrigation water system throughout the entire Navajo Nation.

It is an emergency because we are going through one of the worst drought conditions. It is imperative to keep our existing livestock water facilities in operable condition.

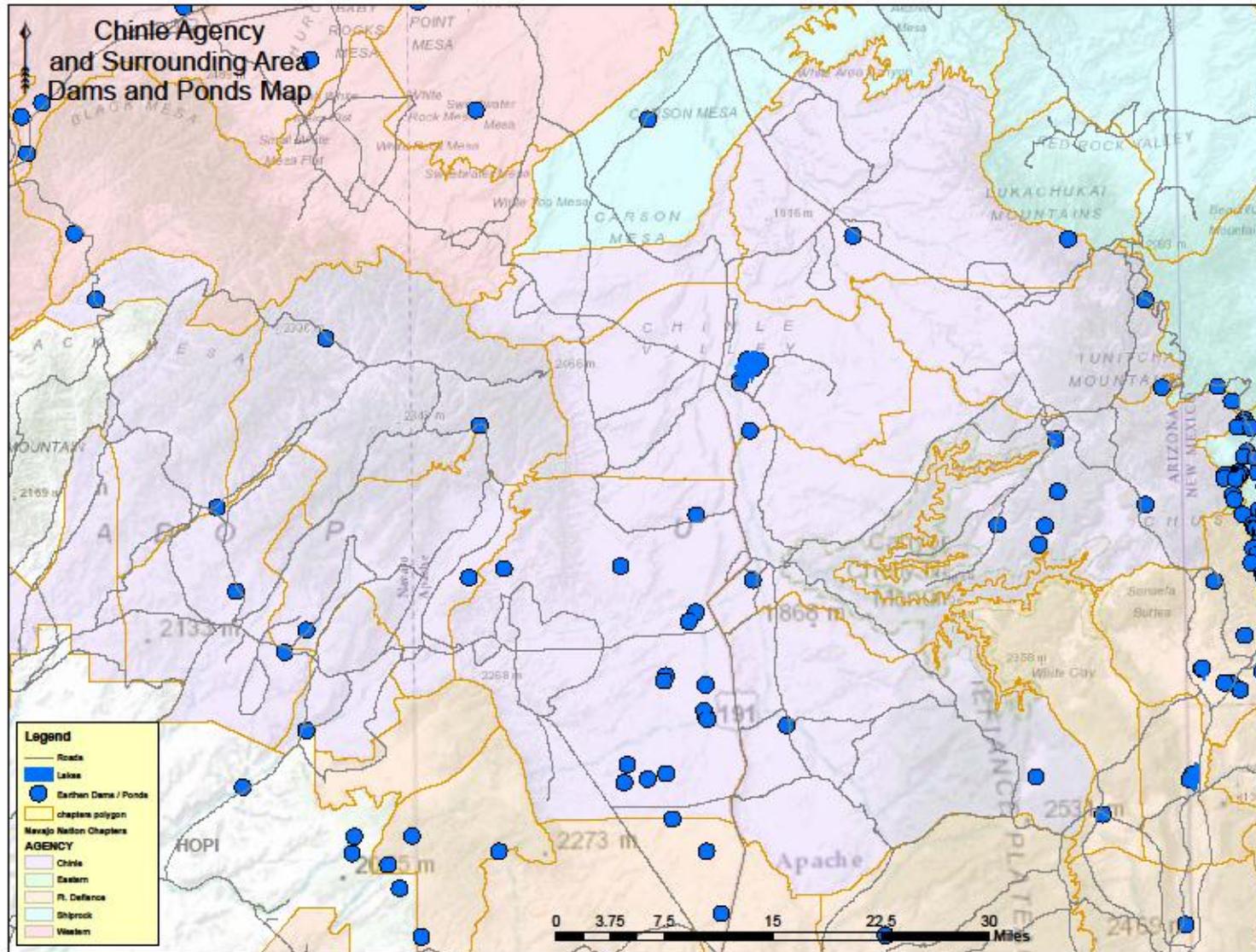
Challenges

- Continuing and Impending Drought Conditions throughout the Navajo Nation and Southwest United States.
- Aging Equipment and Transport Vehicles
- Lack of adequate personnel
- Ageing wells and infrastructure
- Dilapidated Buildings
- Increase operating cost
 - Insurance premiums
 - Fuel Cost
 - Material cost
 - Transportation cost
 - Specialized materials – Windmills, Storage Tanks, Troughs, Hand Pumps, etc.
 - Safety Concerns
 - 1st aid
 - Safety equipments – Workers safety – Hard Hats, Safety Vest, Gloves, Glasses, Breathing /Dust Apparatus, Face Shields, Hearing Protection, Fall Harness, Confined Space equipment, etc.

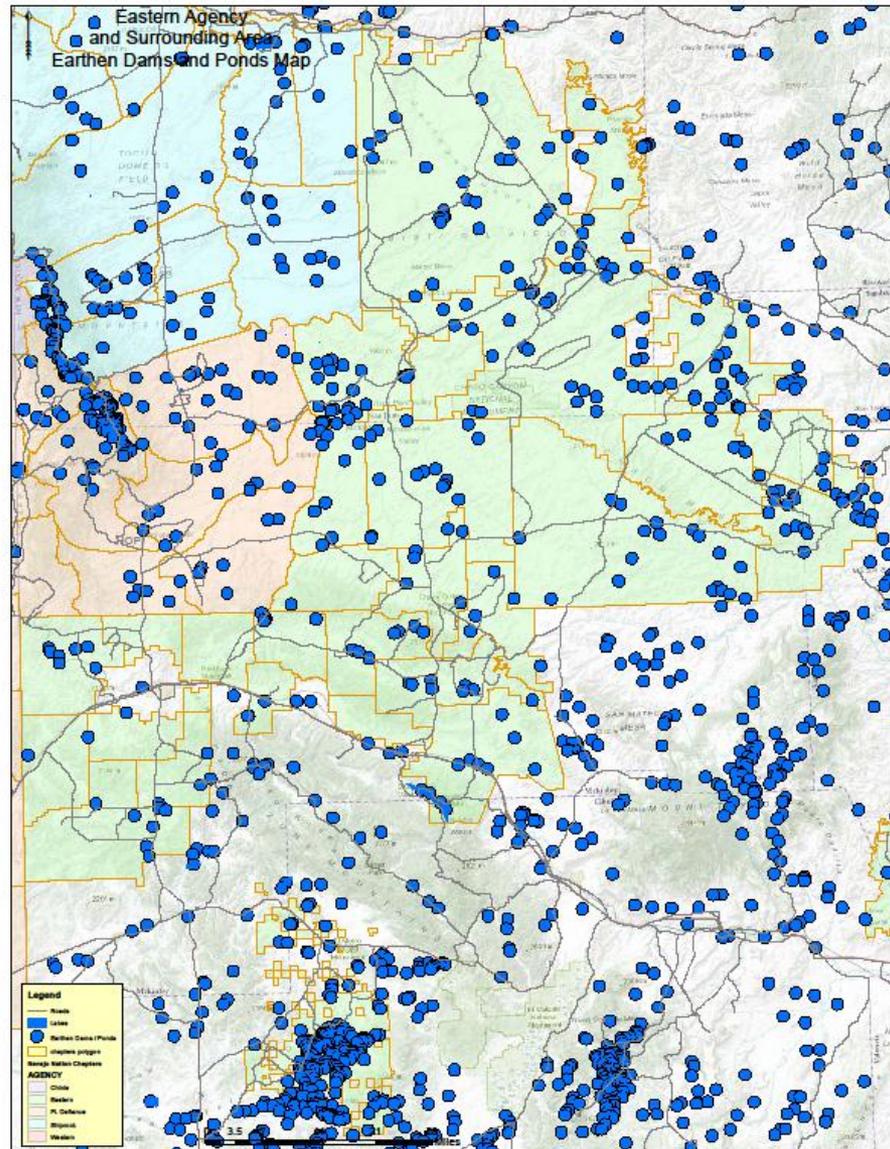
Navajo Nation Earthen Dam Listing (Stock Ponds)



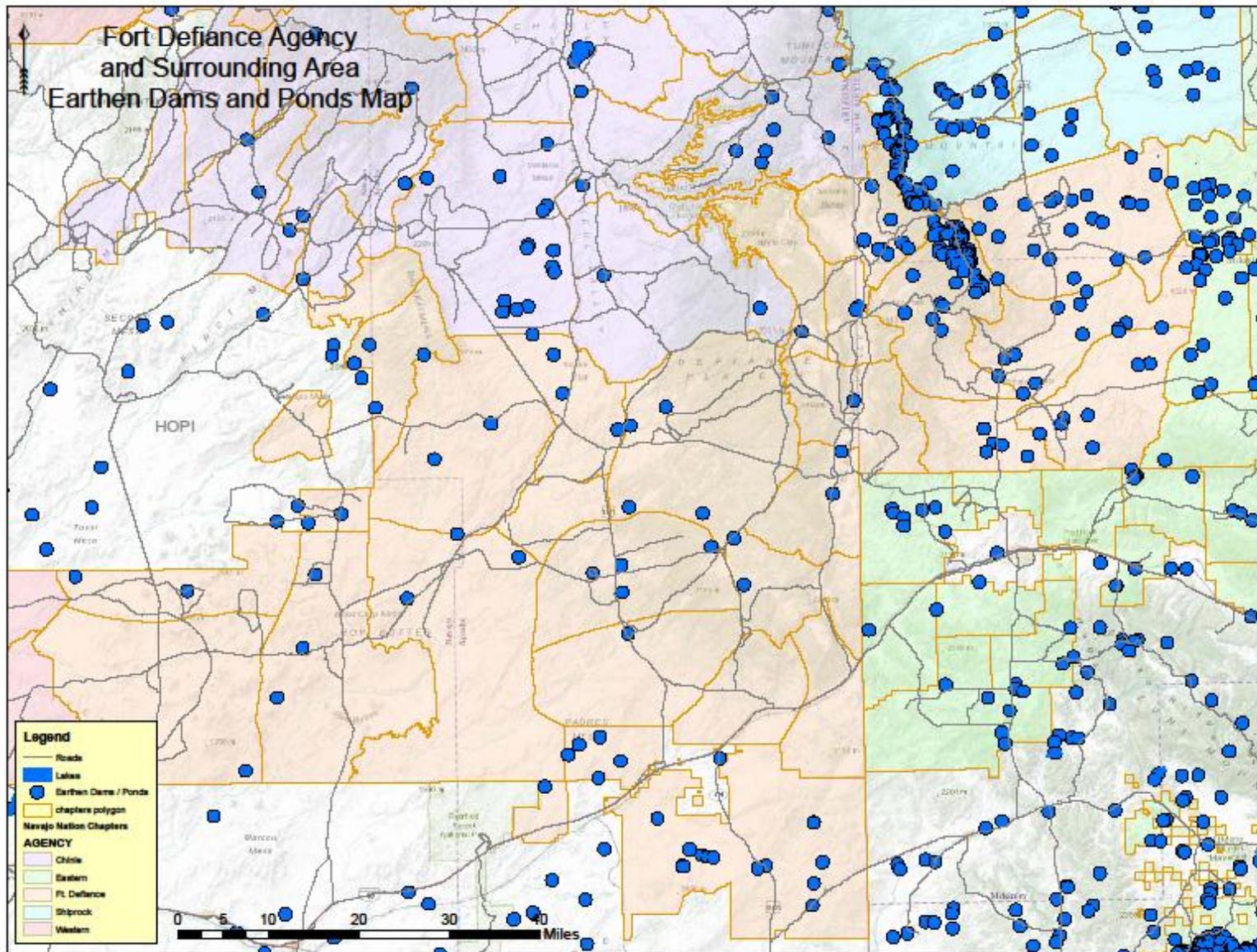
Central Agency – Earthen Dam Locations



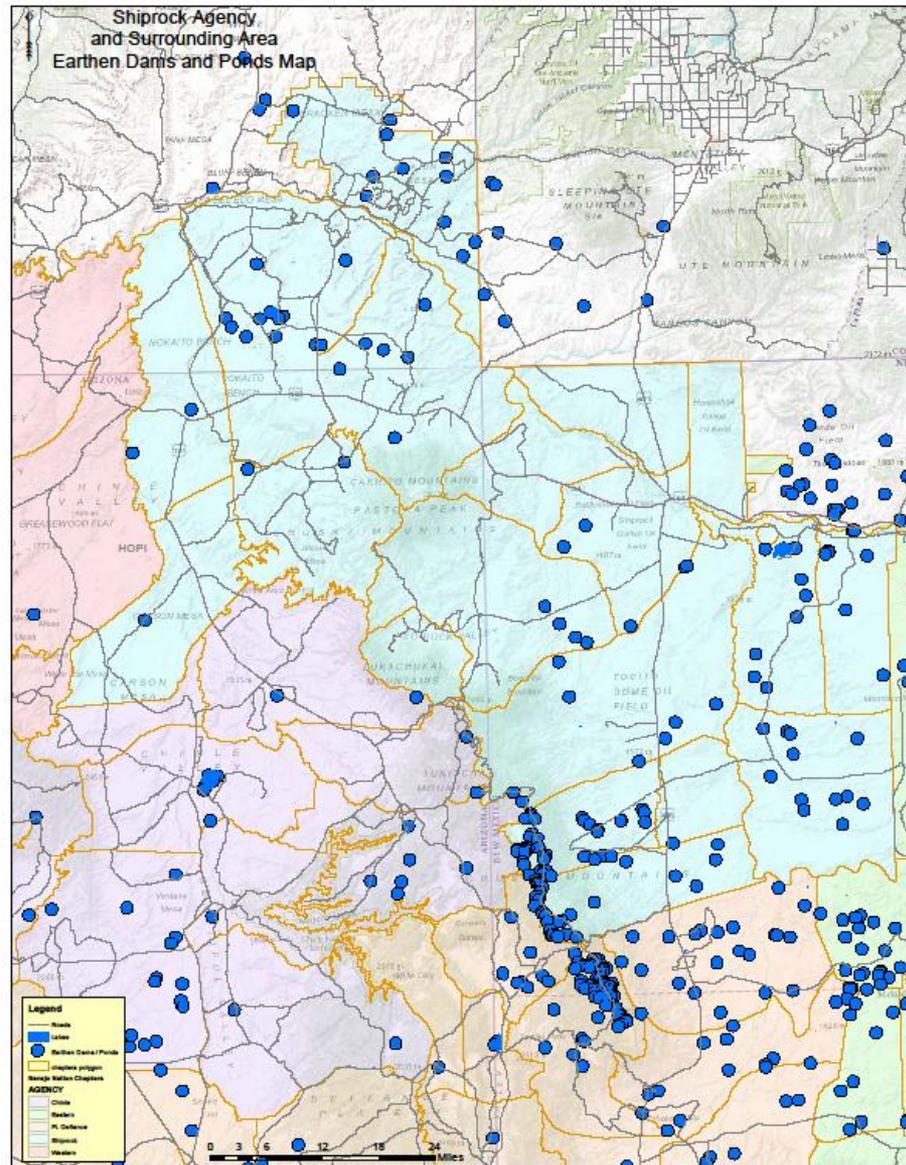
Eastern Agency – Earthen Dam Locations



Ft. Defiance Agency – Earthen Dam Locations



Northern Agency – Earthen Dam Locations



Project Development: Livestock Earth Dam Rehabilitation



James T. Hale
-Principle Engineering Technician

03/01/2012 13:01

Section 1.0

§1.1 – Chapter Resolution & Project Proposal

§1.2 – Request Notification

§1.3 – Preliminary Evaluation/Inspection/Feasibility Studies

§1.4 – Engineering Services

■ §1.1 – Chapter Resolution & Project Proposal:

- Requesting organizations:
 - A. Chapter Resolutions
 - B. Inter-departmental field office requests
 - C. Emergencies
 - D. Other Agencies

■ §1.2 – Request Notification:

- Course of action:
 - A. TCOB receives & stamps all request notification
 - B. Nature and status information
 - C. Correspond in reference to request & information

§1.3–Preliminary Evaluation/ Inspection/Feasibility Studies

- ▣ Overview:
 - A. Feasibility, onsite investigation
 - B. If feasible, a project is developed
 - C. If unfeasible, the requester is notified with concerned details

§1.4 – Engineering Services

- ▣ Procedure if feasible:
 - A. Notification of project initiation
 - B. Archaeological Clearance, if necessary
 - C. Topographic survey of proposed site
 - D. Engineering drafting and design
 - E. Construction
 - A. consistent with design

Section 2.0

§2.1 – Mobilization

§2.2 – Construction

§2.3 – Final Inspection

§2.4 – As-Built Survey

§2.5 – Report

§2.1 – Mobilization

- ▣ Prior to construction:
 - A. Accessible road to site
 - B. Equipment & permit approval
 - C. Transportation of equipment

§2.2 – Construction

- ▣ According to design & specifications:
 - A. Operator's overview
 - B. Commence construction
 - C. Monitor construction oversight

§2.3 – Final Inspection

- ▣ Prior to construction completion:
 - A. Final inspection of product

§2.4 – As-Built Survey

- ▣ Upon completion of final inspection:
 - A. Survey of final construction
 - B. As-Built drafting

§2.5 – Report

- Submit an overall report to requester:
 - A. Completion of project
 - B. Project cost
 - C. Engineering data filed at TCOB

- Questions?

Water is Life

