

# State Route 88 Apache Trail

## Interim Road Repair

Fish Creek Overlook at MP222 to  
Reavis Trailhead at MP 229.6

### Speakers:

Myrna Bondoc – Alternative Deliveries & Major Projects

George Collaco – SE District Maintenance

Aaron Lucchesi – Nesbitt Contracting Inc.

# Agenda

- History
- The Task
- Roadway Condition
- The Approach
- Pre-Construction Challenges
- District Maintenance Challenges
- Construction Challenges







June 8, 2019 – July 5, 2019  
Woodbury Fire burned almost 124K  
acres of the Tonto National Forest

Credit: Dawn Houghtaling



Credit: labig1

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SR88 closed due to the damage.

# The Task

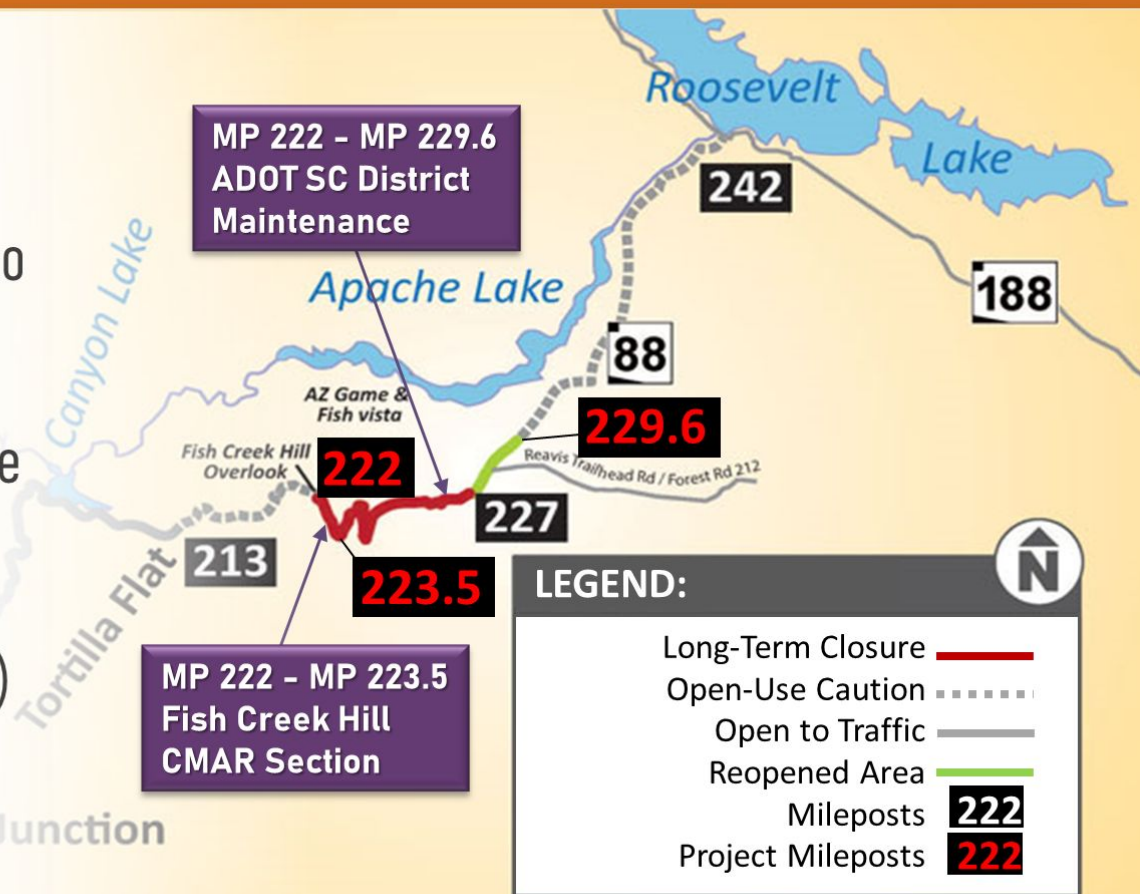
- January 2024 - Tasked with reopening the road to 4x4s and utility terrain vehicles (UTVs)
- Open the roadway by Labor Day weekend 2024
- \$4 Million total budget





# Project Location

- Fish Creek Overlook (MP222) to Reavis Trailhead (MP229.6)
  - ADOT District Maintenance
- Fish Creek Overlook (MP222) to Fish Creek Bridge (MP223.5)
  - CMAR (Nesbitt)



# Roadway Condition



Large boulders  
blocked the road

Section of the road washed out



# Roadway Condition



Eroded roadway edges



# Roadway Condition

Debris and sediment



Heavy rilling





# Roadway Condition



Buried culvert inlets

Clogged damaged culverts



# Roadway Condition



Overgrown vegetation



# Two Prong Approach



**ARIZONA**  
STATE PARKS & TRAILS

## ADOT DISTRICT MAINTENANCE

- Used District Maintenance Crew to optimize funding
- Work can start while procuring design consultant and contractor services
- Initiated Environmental Planning consultation early
- Improved access to the construction site
- Established access to water and fill materials

# Two Prong Approach



**ARIZONA**  
STATE PARKS & TRAILS

## CMAR SECTION

- Engaged designer (Stanley) who recently completed the corridor DCR
- Geotechnical Engineer (Ethos) conducted site visits to prioritize work elements and options for reconstruction
- Environmental team (ADOT EP and Logan Simpson) worked closely with Tonto National Forest and SHPO to obtain NEPA approvals
- CMAR selection and procurement for preconstruction services



# Pre-Construction Challenges

- Two Environmental Clearances
- Meeting Scenic, Historic, Cultural, and Biological requirements
- Working within 50' easement from either side of the roadway center with no TCEs
- Coordinating Multiple Departments and Government Agencies
- Highly Compressed Schedule

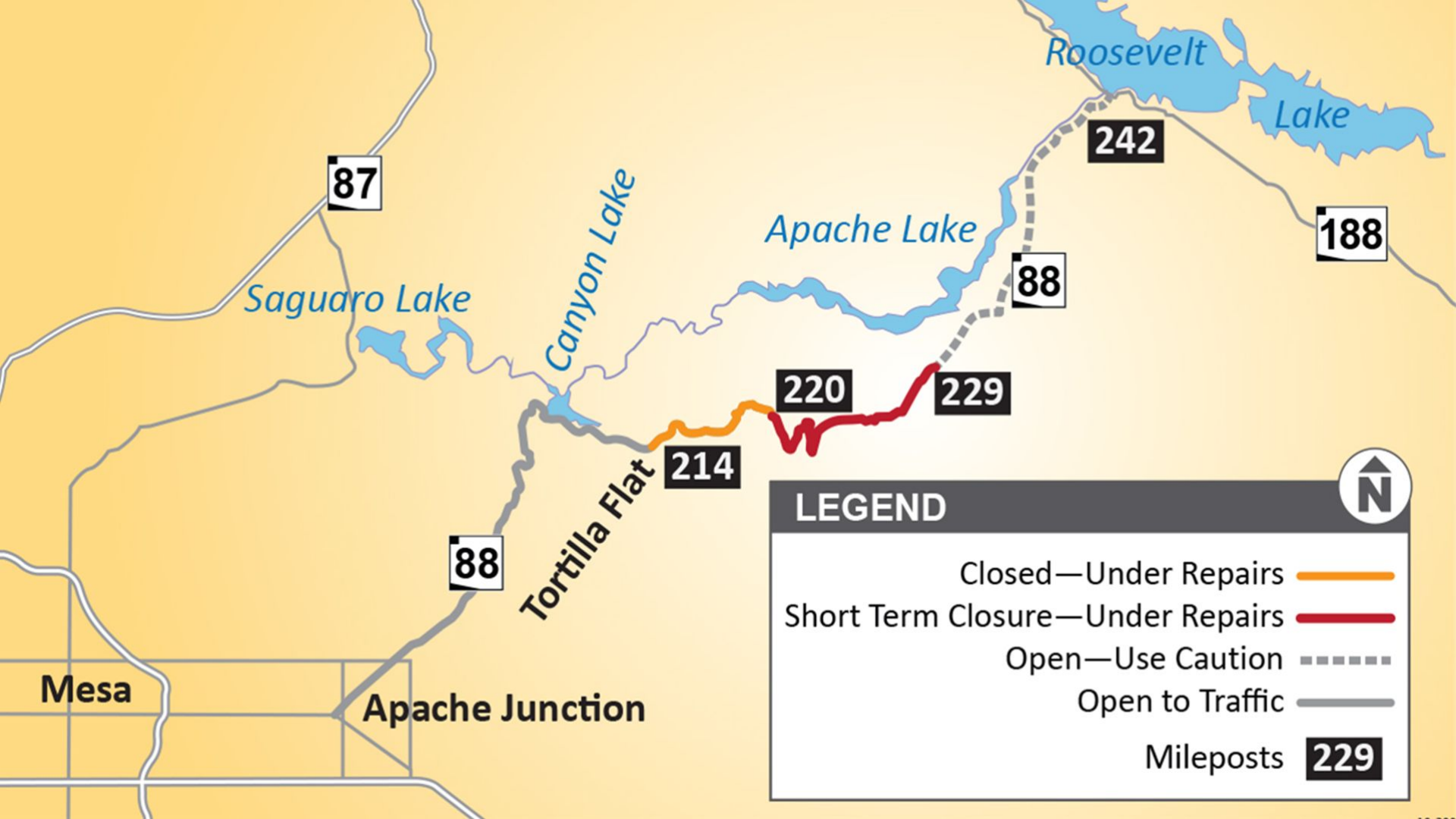




# ADOT District Maintenance

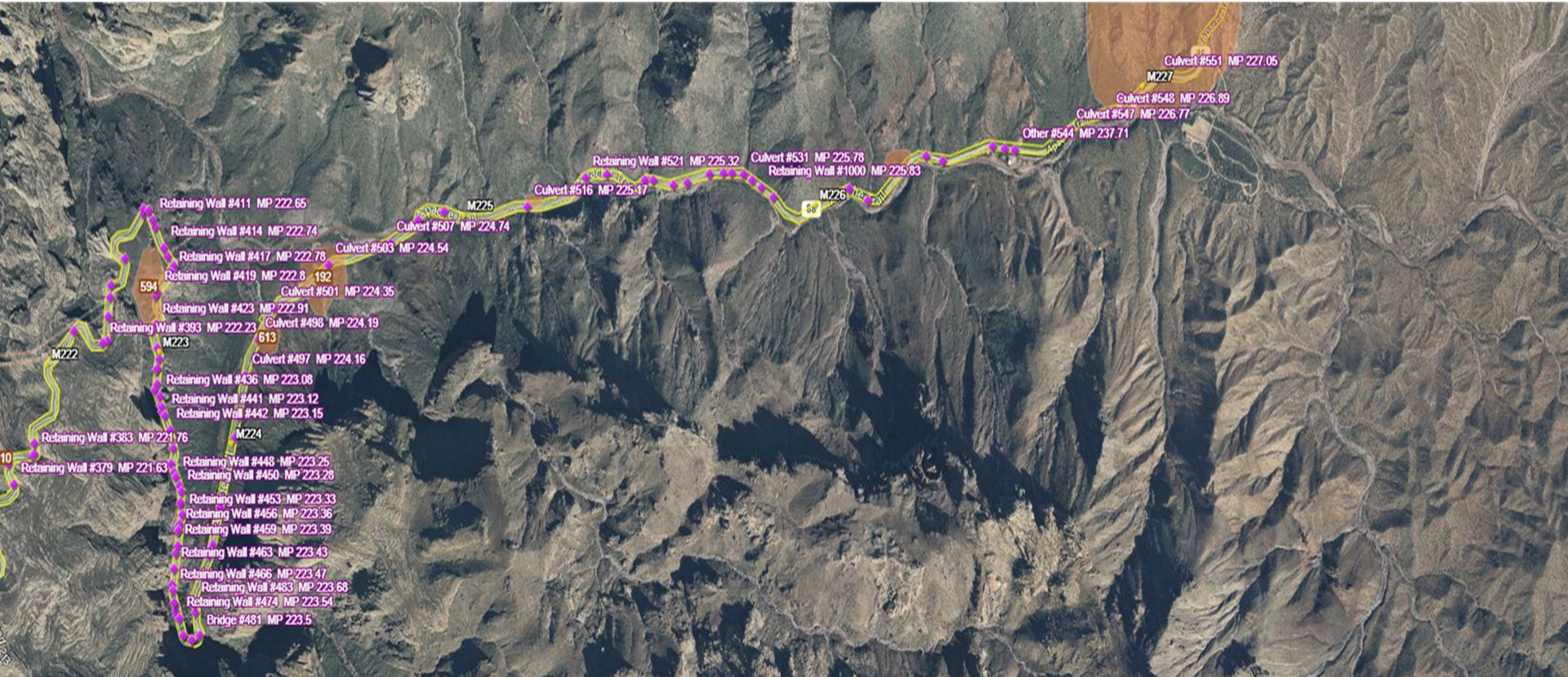
**Hurdles and Challenges**







# 57 Cultural and Historical Rich Areas





# District Maintenance Challenges

- Public walking into the closure and the construction site
- Working around SRP while conducting tower upgrades
- Unearth and cleaned 57 culvert pipes, some by hand
- Flagging different sites from different maps and information
- Brush cutting with handheld equipment to meet SHPO & Tonto Forest requirements
- Twelve sights requiring monitoring with two monitors accross nine miles of road
- Replacing three collapsed culvert pipes in culturaly sensitive areas
- Manpower and equipment issues
- Road grading over historical and cultural sites
- Hydro-vac activities with limited water source and restricting the outfall



# Historic Site with Buried Headwall





# Historic Headwall





# CONSTRUCTION OVERVIEW

**Apache Trail Highway (SR 88) Fish Creek Vista to Fish Creek Bridge,  
Roadway Repair CMAR**

**Aaron Lucchesi  
NESBITT CONTRACTING**





# SCOPE

## REPAIRS TO WIDEN + REOPEN THE ROAD

- Remove boulders
- Restore damaged areas
- Repair culverts
- Regrade the roadway



# CONSTRAINTS

1. No explosives
2. No impact to historic elements [ headwalls, guardrails, culverts, foundations ]
3. Maintain natural historic appearance
4. No material import/export
5. Had to “batch” slurry on-site
6. Schedule Can't start before 07/22/24 Must complete by 09/16/24
7. Reduce wildlife impacts Tortoise survey Bird survey
8. Minimal plans available



# LOGISTICS

## 1. Mobilization





# LOGISTICS

2 separate projects

Rock slide blocked access

3-hour detour





# LOGISTICS

2 separate operations

Fire equipment

Construction equipment





# LOGISTICS

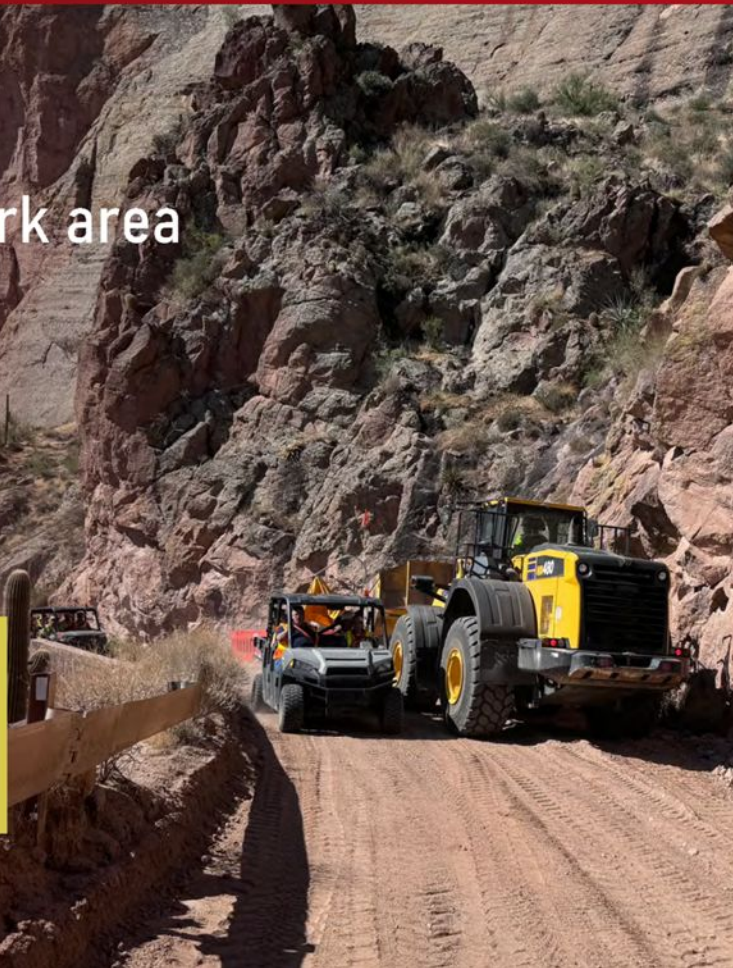
Extremely narrow work area

As little as 12 feet wide

Not enough room to pass

Used side-by-sides

Stop and stage equipment  
in order to pass  
[ narrow work zones 1 + 2 ]





# BREAKING BOULDERS

All material hauled with loaders





# SCREENING TO REUSE MATERIALS



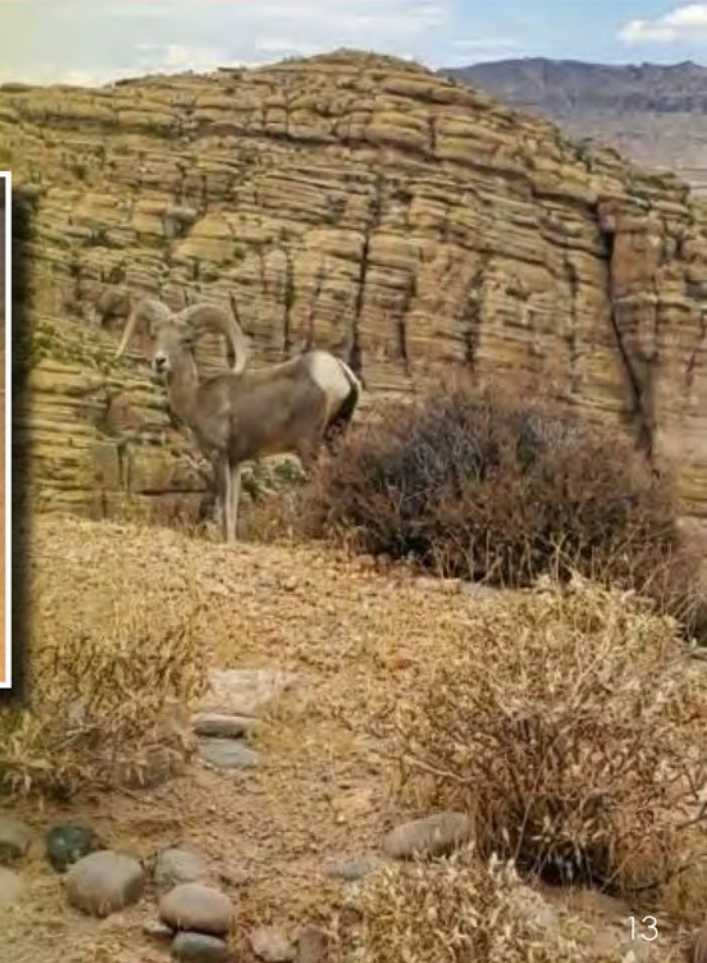


# UNEXPECTED VISITORS

Deer, Bighorn Sheep, Javelina,  
Ringtail cats, Coatimundi



**WILDLIFE**





# QUESTIONS

