

# Apache Trout Recovery on the Fort Apache Indian Reservation



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# U.S. Fish and Wildlife Service

Arizona Fish and Wildlife Conservation Office

White Mountain Apache Tribe Game and  
Fish Department



# Apache Trout Crew

- Crew consisted of 20 individuals
  - 4 crew leaders
  - 16 crew members
- 11 Arizona Conservation Corps
  - 1 crew leader
  - 10 crew members
- 3 GS-5 Biological Science Technicians
- 6 GS-4 Biological Student Trainees



# Nonnative Removals

- **Continuous**
  - Barrier to headwaters
- **Targeted**
  - Environmental DNA guided
- **Depletion**
  - 100-m sites



# 2022 Nonnative Removals

Water Name	Apache Trout	Brook Trout	Brown Trout
Aspen Creek	10,971	—	25
Boggy/Lofer creeks	398	—	54
Crooked Creek	87	—	—
Flash Creek	314	—	—
Hughey Creek	—	—	139
Hurricane Creek	—	—	221
West Fork Black River	838	5,575	—
Thompson Creek	42	56	—
Paradise Creek	261	—	10
<b>Total</b>	<b>12,911</b>	<b>5,631</b>	<b>449</b>

Preliminary data, do not cite

# Permeable Barriers

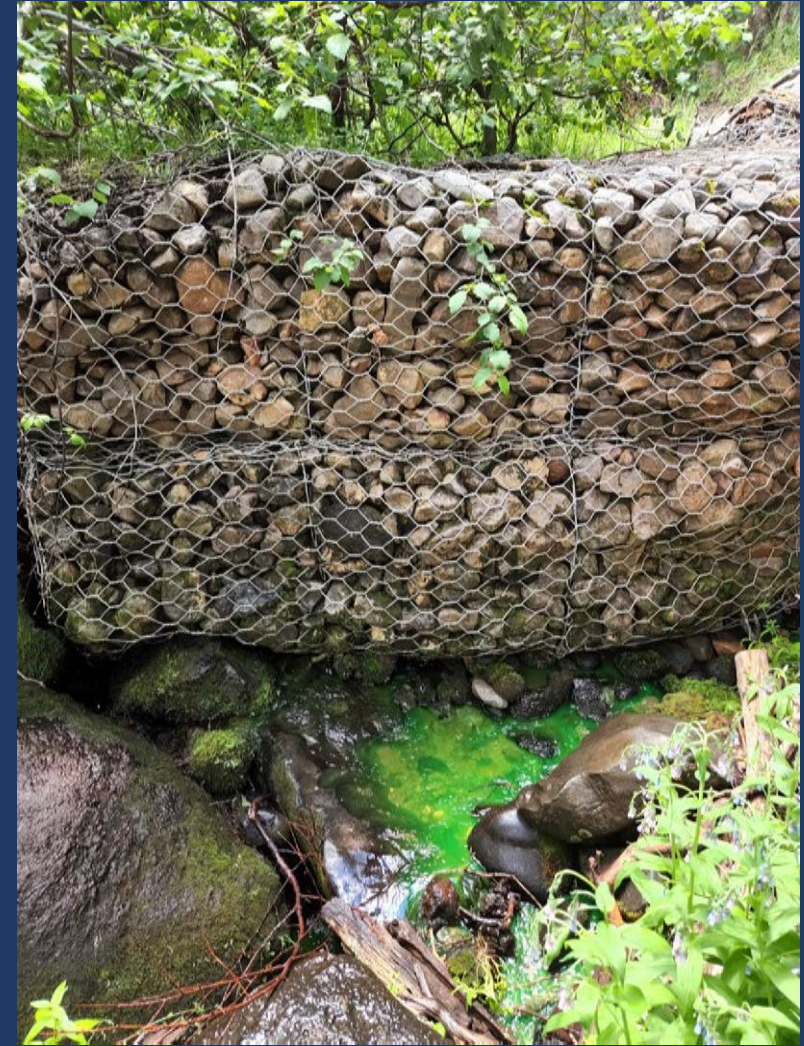
**West Fork Black  
River and  
Thompson Creek**



# Paradise Creek

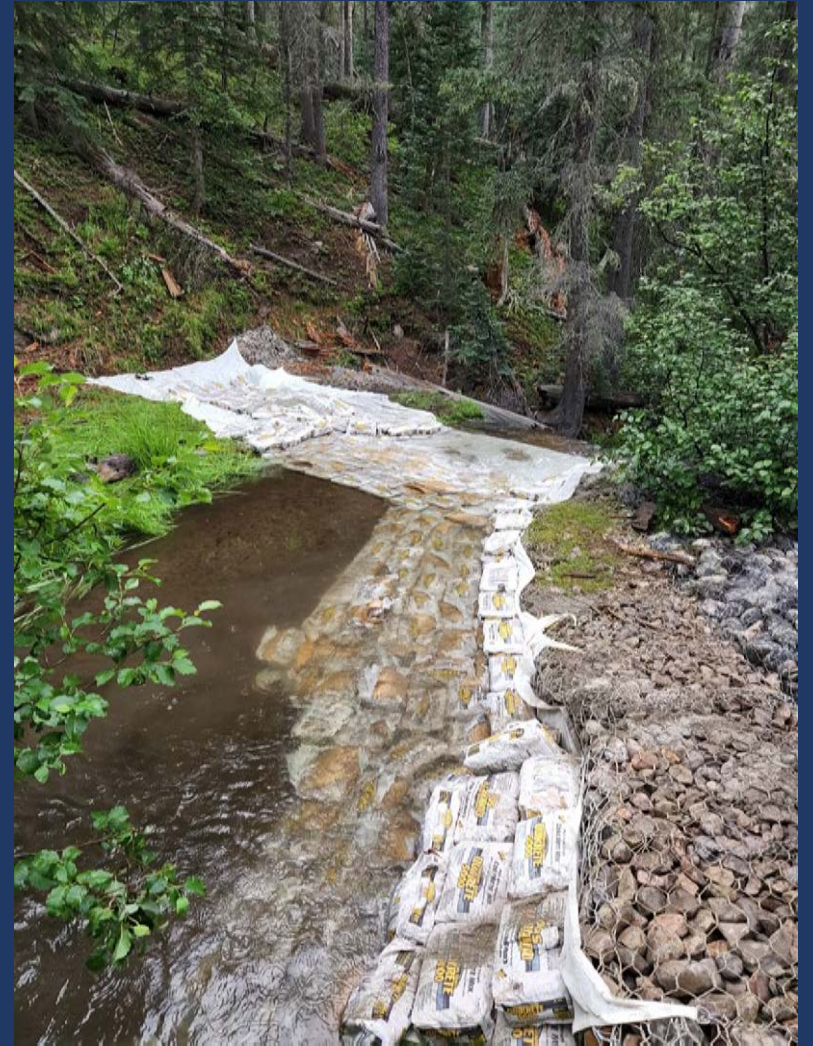


# Paradise Creek





# Paradise Creek



# Apache Trout Population Monitoring

- 2017 Monitoring Plan
- 5-year rotation
- 20% of habitat sampled
- Three pass depletion



# 2022 Population Monitoring

Water Name	Adult N ( $\pm 80\text{CI}$ )	Brown Trout Removed
Boggy/Lofer creeks	801 (543–1,058)	6
Coon Creek	44 (10–99)	8
Rock Creek	174 (95–254)	1,615
Wohlenberg Creek	140 (78–202)	—

Preliminary data, do not cite

# Barriers

- Aspen Creek
- Big Bonito Creek
- Crooked Creek
- Flash Creek
- Little Bonito Creek



# 2023 Work Plan

- Apache Trout Crew
  - 16 individuals: internal and Arizona Conservation Corps
- Cryopreservation of Milt
  - Deep Creek
  - Ord Creek and East Fork White River (dependent upon weather and amount of snow)
- West Fork Black River and Thompson Creek wild fish health survey
- Environmental DNA
  - Paradise Creek (SATR)
  - Aspen Creek (SATR)
  - Boggy/Lofer creeks (SATR)
  - Big Bonito Creek (ONAP)



# 2023 Work Plan

- Nonnative removals
  - Aspen Creek
  - Boggy/Lofer creeks
  - Paradise Creek: dependent upon eDNA results
  - West Fork Black River
  - Thompson Creek
- Population Monitoring
  - Little Diamond Creek
  - Sun and Moon creeks
  - Firebox Creek
  - Smith Creek
  - Crooked Creek
  - Marshall Butte Creek
  - Big Bonito Creek (upper)
  - Coyote Creek
  - Elk Canyon
  - Paradise Creek

