

Apache Trout Recovery Program

A Look into “Recovery”



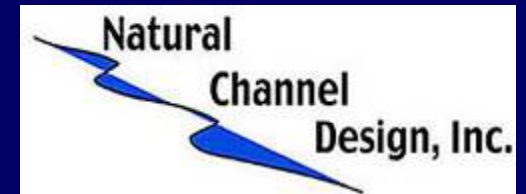
Photo by Michael Graybrook

Jeremy Voeltz

Arizona Fish and Wildlife Conservation Office



Recovery Partners



WESTERN
NATIVE TROUT
INITIATIVE



Outline

- **Brief overview of 2010 activities**
- **Endangered Species Act**
 - definitions
 - listing
 - recovery planning
 - recovered
 - “5 factors”
- **Apache trout conservation**
 - history
 - recovery plan
 - current status
 - prospects for “recovery”
 - future



2010 Activities

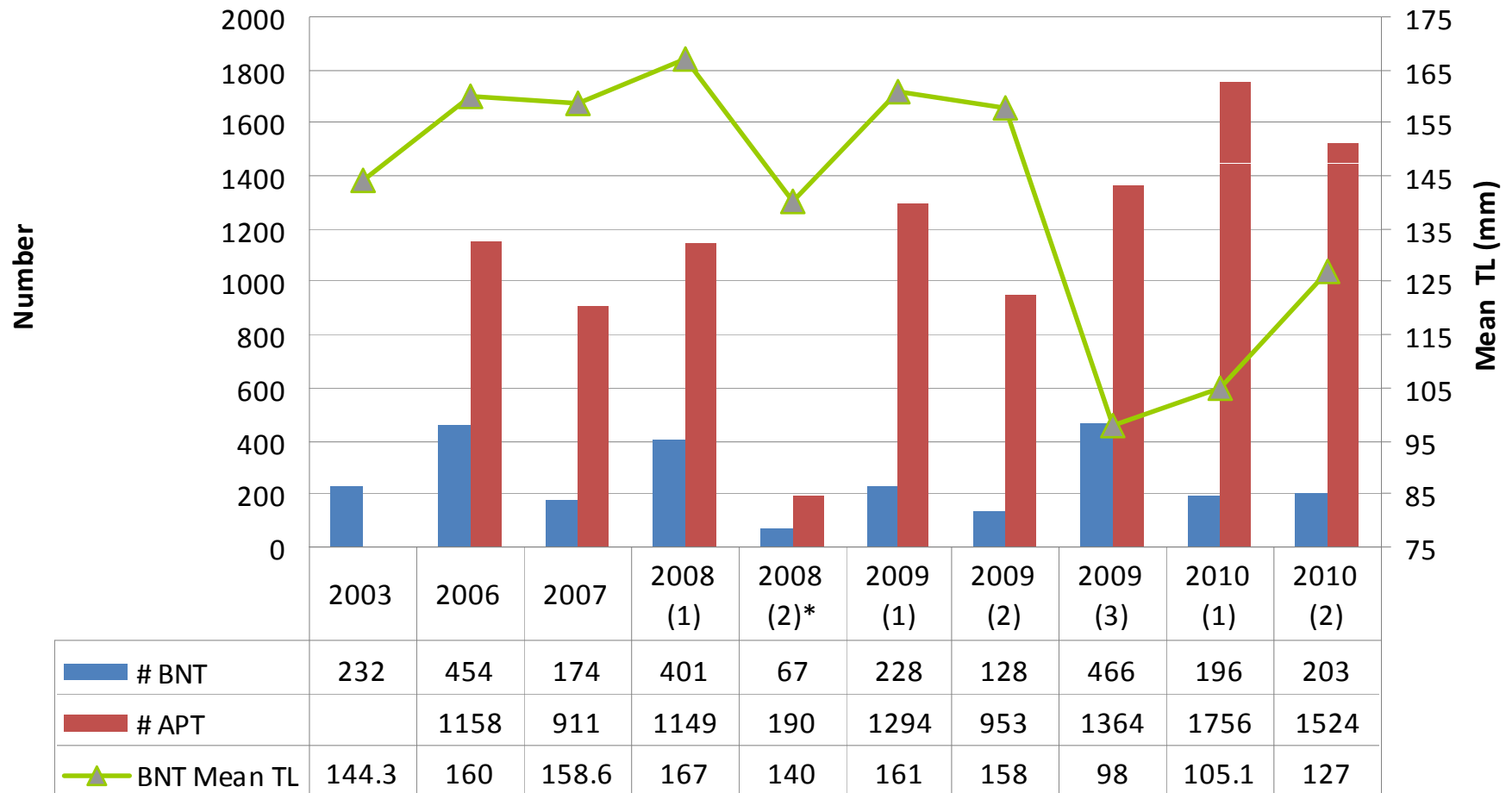
- **AGFD**
 - **Habitat surveys on SFLCR and Mineral Creek**
 - **Barrier evaluations on six barriers**
 - **Five appear effective**
 - **NEPA compliance with USFS for barrier repair**
 - **Two repaired**
 - **Mechanical removal on three streams**
 - **WFLCR and Bear Wallow and Conklin creeks**
 - **Habitat improvement project on North Canyon Creek**
 - **Population estimate on Fish Creek (~2000 APT)**

2010 Activities

- **USFWS / WMAT**
 - **Evaluations of 12 barriers**
 - **Population monitoring on 13 streams**
 - **Habitat monitoring on several streams**
 - **Mechanical removal of brown trout**

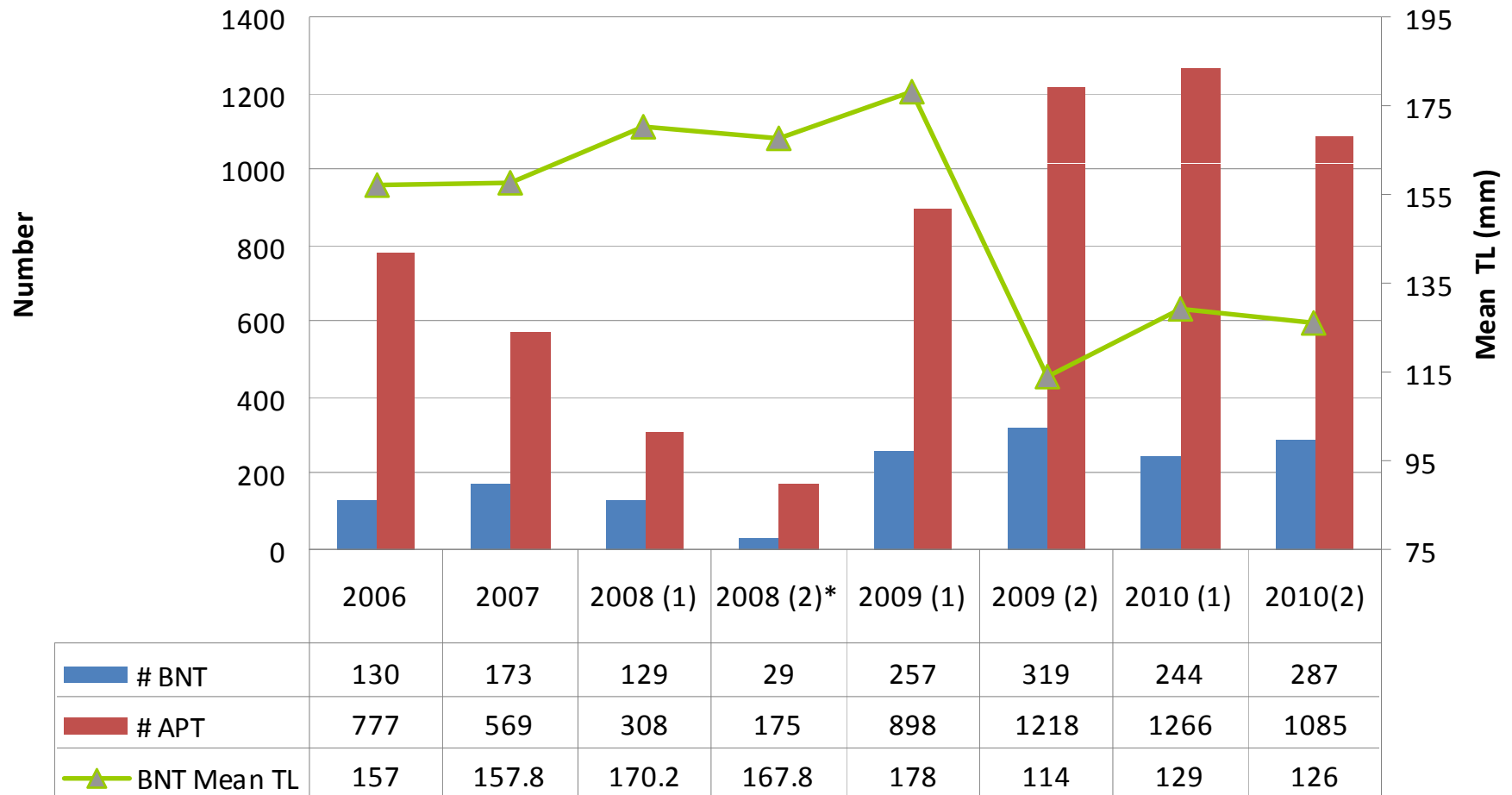
Mechanical Removal of Brown Trout

Little Bonito



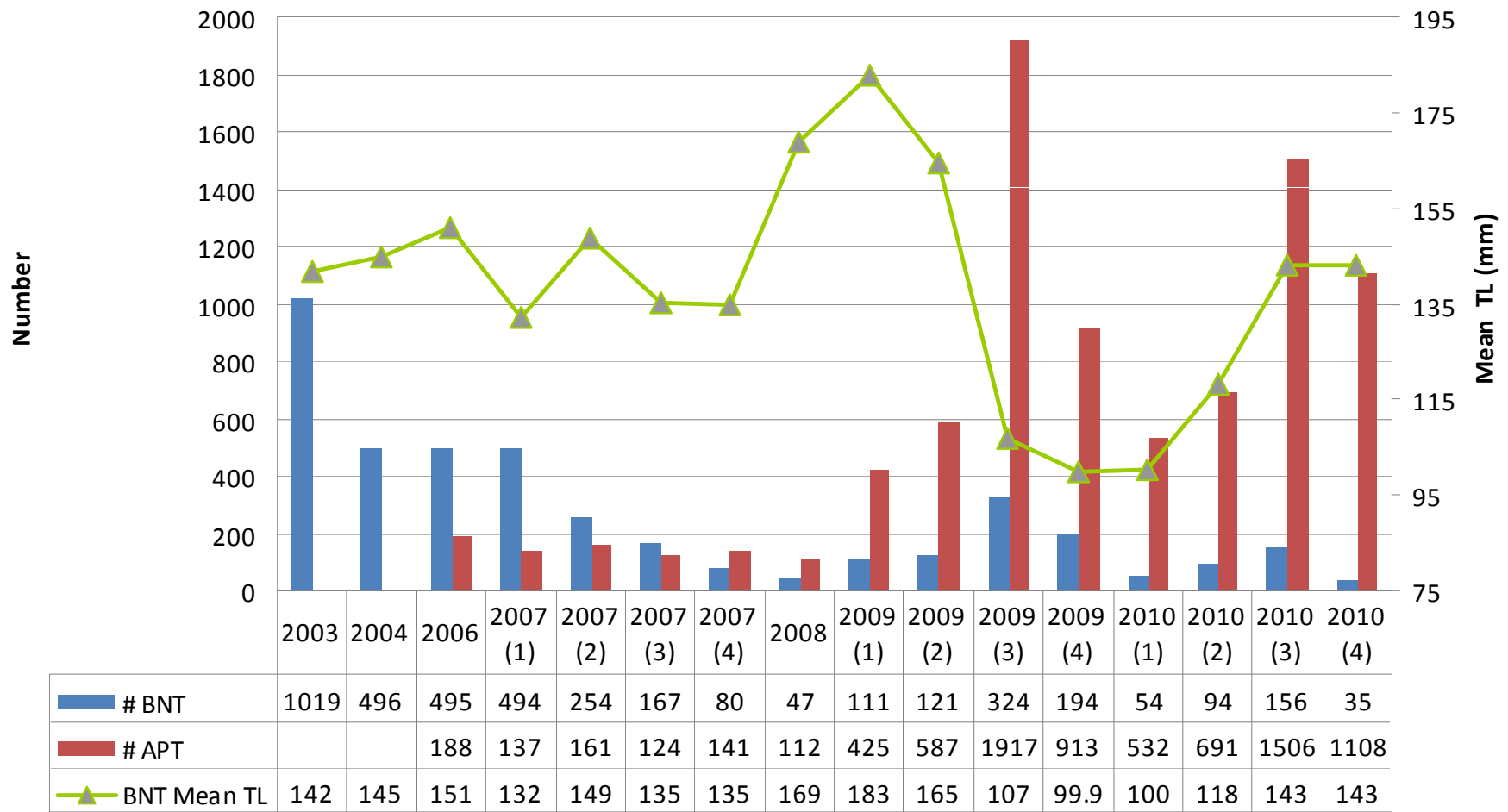
Mechanical Removal of Brown Trout

Squaw



Mechanical Removal of Brown Trout

Crooked



Endangered Species Act History:

- Passed in 1973 (follow up to Endangered Species Preservation Act of 1966)
 - ESA's purpose is to protect and recover species and the ecosystems upon which they depend
 - 139 fish taxa have been listed
 - Zero have been “recovered” (4 went extinct, 1 removed from list due to taxonomic changes)

Endangered Species Act History:

- **Why is recovery of fish so challenging?**
 - **Don't receive the attention of the mega-fauna**
 - **Threats for fish aren't easily reversed/eliminated compared to other taxa (bird example: DDT)**
 - **Water development, water use, & water law; especially in the Southwest**

“I know the human being and fish can coexist peacefully.”
~ George W. Bush, September 29, 2000

ESA Definitions:

- **Five Factors to determine whether to list/delist (Sec. 4):**

A: the present or threatened destruction, modification, or curtailment of its habitat or range;

B: overutilization for commercial, recreational, scientific, or educational purposes;

C: disease or predation;

**D: the inadequacy of existing regulatory mechanisms;
or**

E: other natural or manmade factors affecting its continued existence.

ESA Definitions:

- **Endangered:** *any species that is in danger of extinction throughout all or a significant portion of its range*
- **Threatened:** *any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range*
- **Recovered:** [Not defined in ESA]

ESA Definitions:

- ***Threatened*** was added in ESA (not included in ESPA) for three main reasons:
 - 1) provide Federal protection before a species reaches brink of extinction
 - 2) scale back protection(s) for endangered species as recovery progresses
 - 3) increase management flexibility through ESA section 6 (cooperation with states) and section 4(d) special rules

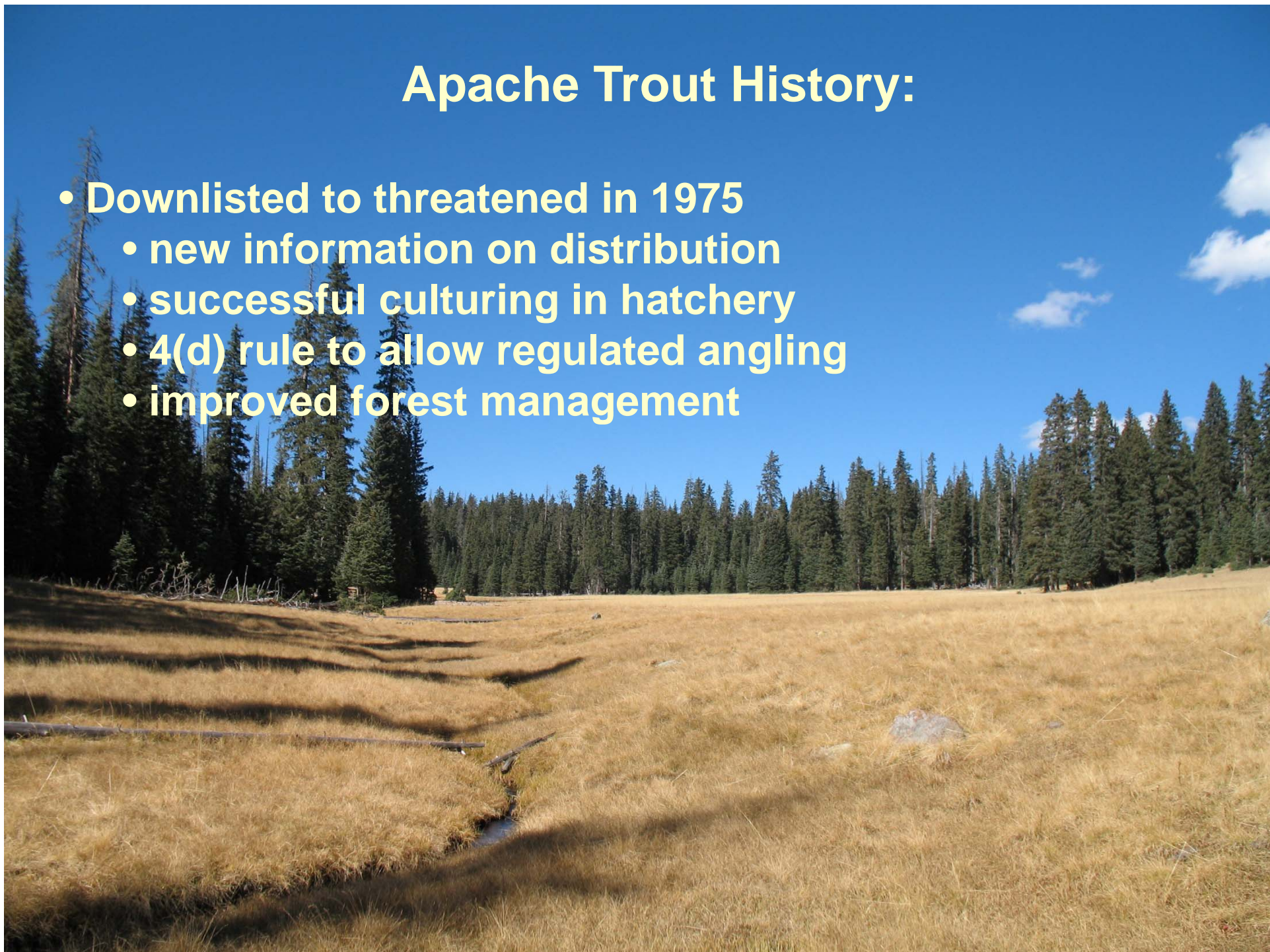
Apache Trout History:

- Apache trout listed as endangered in 1967
 - restricted to 48-km (30 mi) in range
 - protected from harvest by WMAT in 1955
- Threatened by timber over-harvest, angler over-harvest, and predation/competition/hybridization with nonnative trout



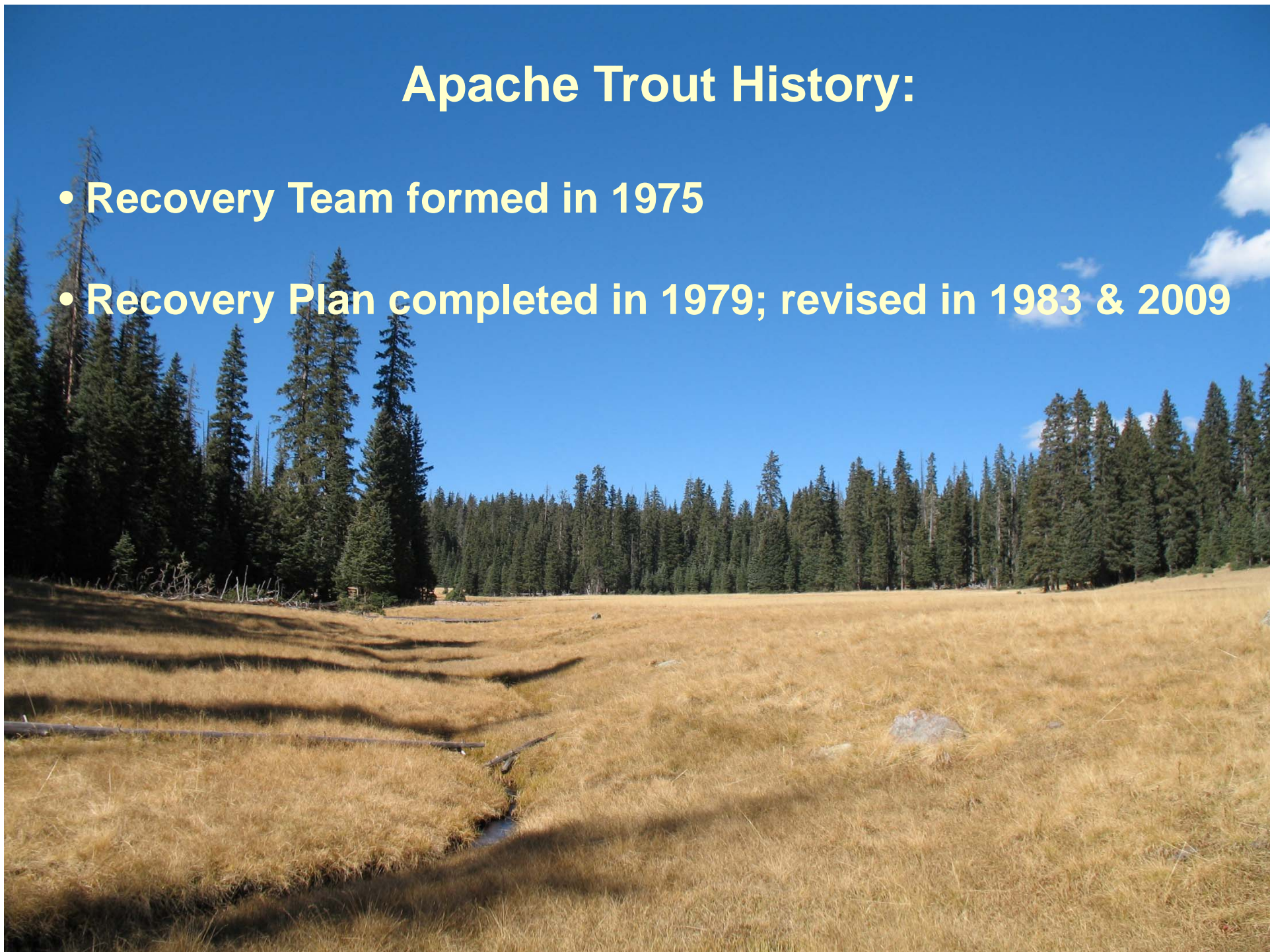
Apache Trout History:

- **Downlisted to threatened in 1975**
 - **new information on distribution**
 - **successful culturing in hatchery**
 - **4(d) rule to allow regulated angling**
 - **improved forest management**



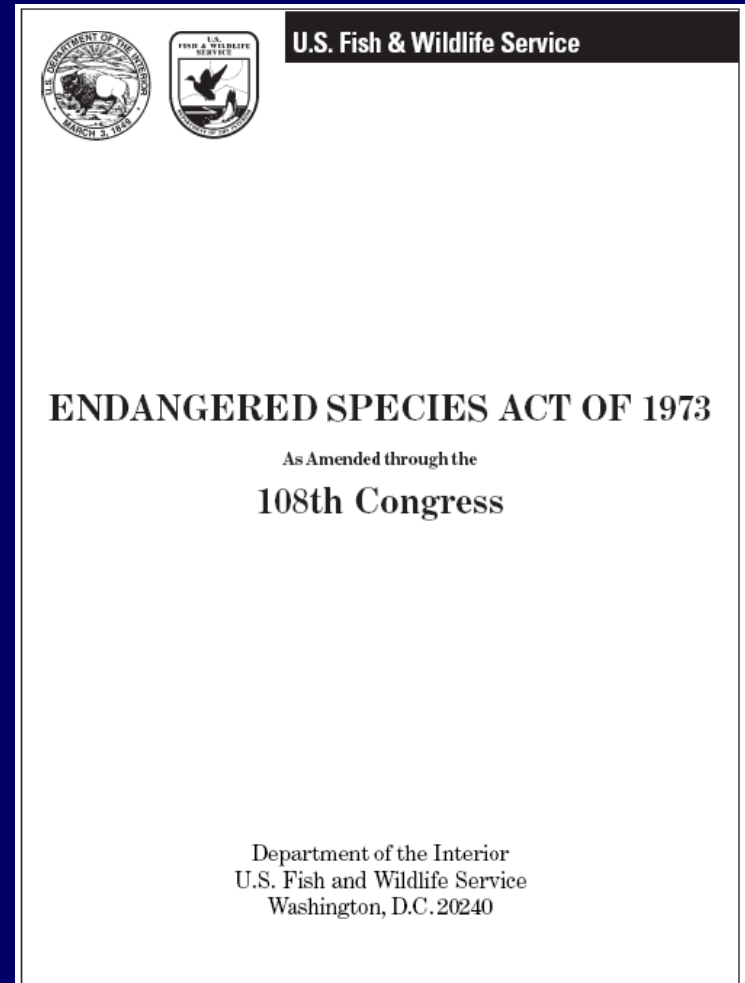
Apache Trout History:

- Recovery Team formed in 1975
- Recovery Plan completed in 1979; revised in 1983 & 2009



Recovery Planning

- Requirement under section 4(f) of ESA
- A Recovery Plan shall contain:
 - site-specific actions needed to achieve recovery
 - implementation schedule
 - estimated budget



Apache Trout Recovery Plan – 2nd Revision

APACHE TROUT (*Oncorhynchus apache*)

RECOVERY PLAN

(Second Revision)

(Original Approved: August 20, 1979)
(First Revision Approved: September 22, 1983)

Prepared by:

Arizona Game and Fish Department
Nongame and Endangered Wildlife Program
Phoenix, Arizona

Arizona Game and Fish Department
Region I Office
Pinetop, Arizona

U.S. Fish and Wildlife Service
Arizona Fish and Wildlife Conservation Office
Pinetop, Arizona

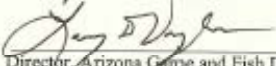
for
Region 2
U.S. Fish and Wildlife Service
Albuquerque, New Mexico

Approved:


Regional Director, U.S. Fish and Wildlife Service

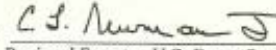
Date: 8/26/09

Concurrence:


Director, Arizona Game and Fish Department

Date: Aug 26, 2009

Concurrence:


Regional Forester, U.S. Forest Service

Date: Aug 26, 2009



Objective = 30 populations

- Retained from 1979 and 1983 recovery plans
- Additional justification by applying conservation principles:
 - Representation
 - Redundancy
 - Resiliency
 - Restoration



Recovery Plan Criteria

1) Sufficient, protected habitat for:

2) 30 populations of pure Apache trout within historic range



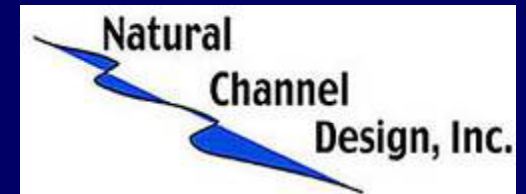
Recovery Plan Criteria

3) Appropriate angling regulations

4) Agreements to monitor, prevent, and control disease, parasites, and pathogens



Recovery Partners



WESTERN
NATIVE TROUT
INITIATIVE



The Association of Fish and Wildlife Agencies—the organization that represents all of North America's fish and wildlife agencies—promotes sound management and conservation, and speaks with a unified voice on important fish and wildlife issues.

Apache Trout Recovery:

- Threatened by

- ~~- Timber over harvest (A, D, E)~~

- ~~- Angler over harvest (B, D)~~

- Interactions with nonnative trout (C, E)

- Future threats - climate change, fire, etc. (A, E)

A: the present or threatened destruction, modification, or curtailment of its habitat or range;

B: overutilization for commercial, recreational, scientific, or educational purposes;

C: disease or predation;

D: the inadequacy of existing regulatory mechanisms; or

E: other natural or manmade factors affecting its continued existence.

Apache Trout Recovery:

- Threatened by

- ~~Timber over harvest (A, D, E)~~

- ~~Angler over harvest (B, D)~~

- Interactions with nonnative trout (C, E)

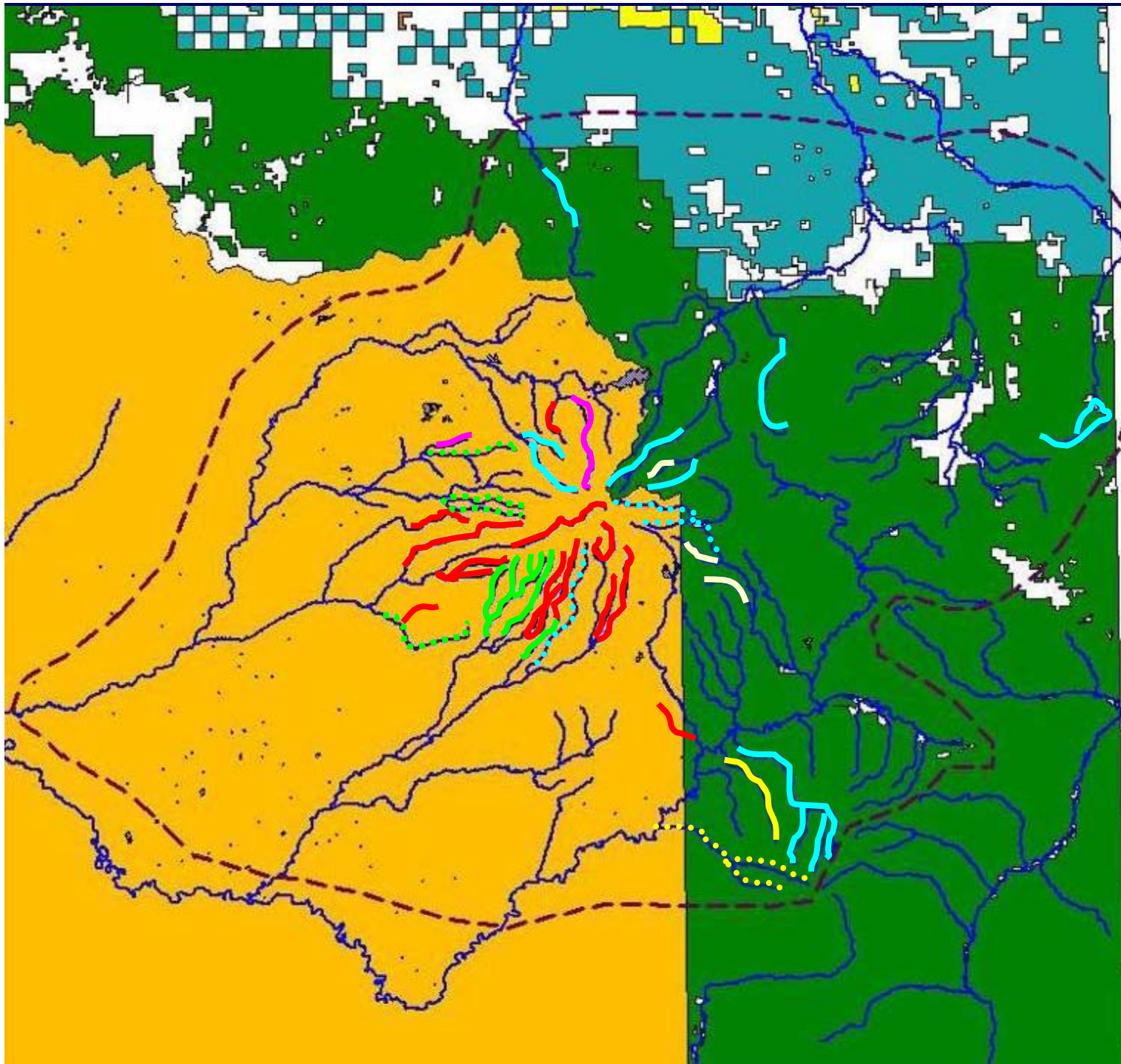
- Future threats - climate change, fire, etc. (A, E)

- Current Status:

- 32 populations (including 14 remaining natural)

- 22 secured with good barriers and no nonnative trouts

Threatened: *any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range*



-  Historical range
-  Nat. pop'n w/ nat. bar.
-  Nat. pop'n w/ art. bar.
-  Nat. pop'n w/ bar & nnt
-  New pure pop'n
-  Est. pop'n w/ bar & no nnt
-  Est. pop'n w/ bar & nnt
-  Pop'n may not persist
-  Empty
-  hybridized

Delisting Process

Assess whether species still needs protection under the ESA –
(5 factor analysis)

A: the present or threatened destruction, modification, or curtailment of its habitat or range;

B: overutilization for commercial, recreational, scientific, or educational purposes;

C: disease or predation;

D: the inadequacy of existing regulatory mechanisms; or

E: other natural or manmade factors affecting its continued existence.

No change in status warranted, species remains on the list

Publish proposed rule to delist or downlist in the *Federal Register*

Publish proposed rule to delist or downlist in the *Federal Register*

```
graph TD; A["Publish proposed rule to delist or downlist in the Federal Register"] --> B["Solicit expert opinions of 3 appropriate and independent species specialists (peer review). Seek input from public, scientific community, Federal and State agencies"]; B --> C["Announce decision not to delist or downlist in the Federal Register"]; B --> D["Publish final rule to delist or downlist in the Federal Register"];
```

Solicit expert opinions of 3 appropriate and independent species specialists (peer review). Seek input from public, scientific community, Federal and State agencies

Announce decision not to delist or downlist in the *Federal Register*

Publish final rule to delist or downlist in the *Federal Register*

**Publish final rule to
delist or downlist in the
*Federal Register***

```
graph TD; A["Publish final rule to delist or downlist in the Federal Register"] --> B["Species removed from (or reclassified in) the Lists of Endangered and Threatened Wildlife and Plants"]; B --> C["Monitor the species according to a post-delisting monitoring plan"];
```

**Species removed from (or reclassified in) the
Lists of Endangered and Threatened Wildlife
and Plants**

**Monitor the species according to a post-
delisting monitoring plan**

What Does the Future Hold For Apache Trout?

- Recovery Plan estimates delisting can begin in 2011/2012
- NFWF 10-year business plan \$3+ million dollars
- FWS Spotlight Species 5-year Action Plan

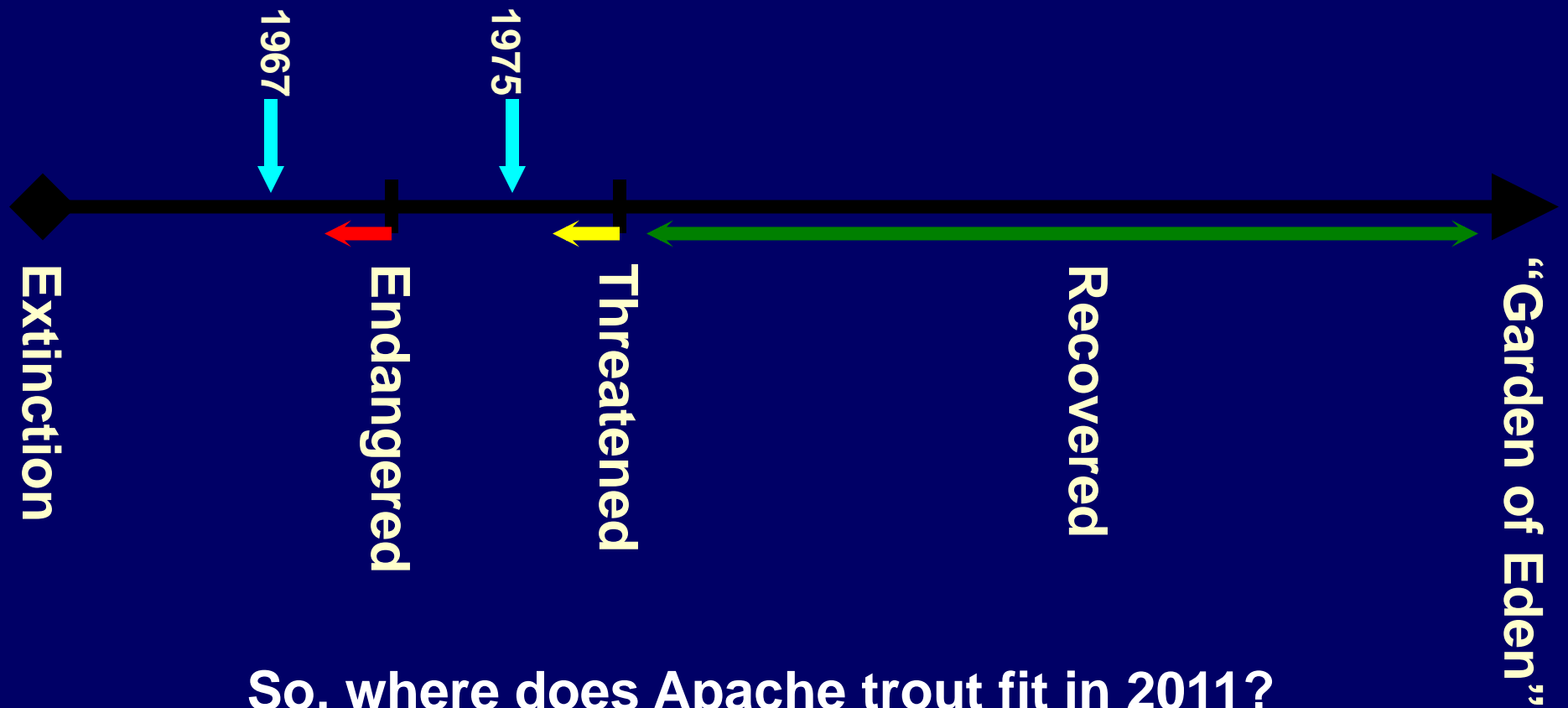


Is Recovery Achievable?

- **manageable threats**
- **committed resources – long term**
- **State, Federal, Tribal, NGO commitment**
- **relatively low controversy**
- **“five factors” analysis of current/future threats**
- **application of the definitions of ESA**
- **long term trends = improving overall status of species**

Endangered: *any species that is in danger of extinction throughout all or a significant portion of its range*

Threatened: *any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range*



So, where does Apache trout fit in 2011?

Discussion/Questions

