

RECREATIONAL AND ECOLOGICAL SIGNIFICANCE OF NOMINATED JEMEZ WATERS



Dr. Robert R. Parmenter
Division Chief, Science and Resource Stewardship
Valles Caldera National Preserve
National Park Service



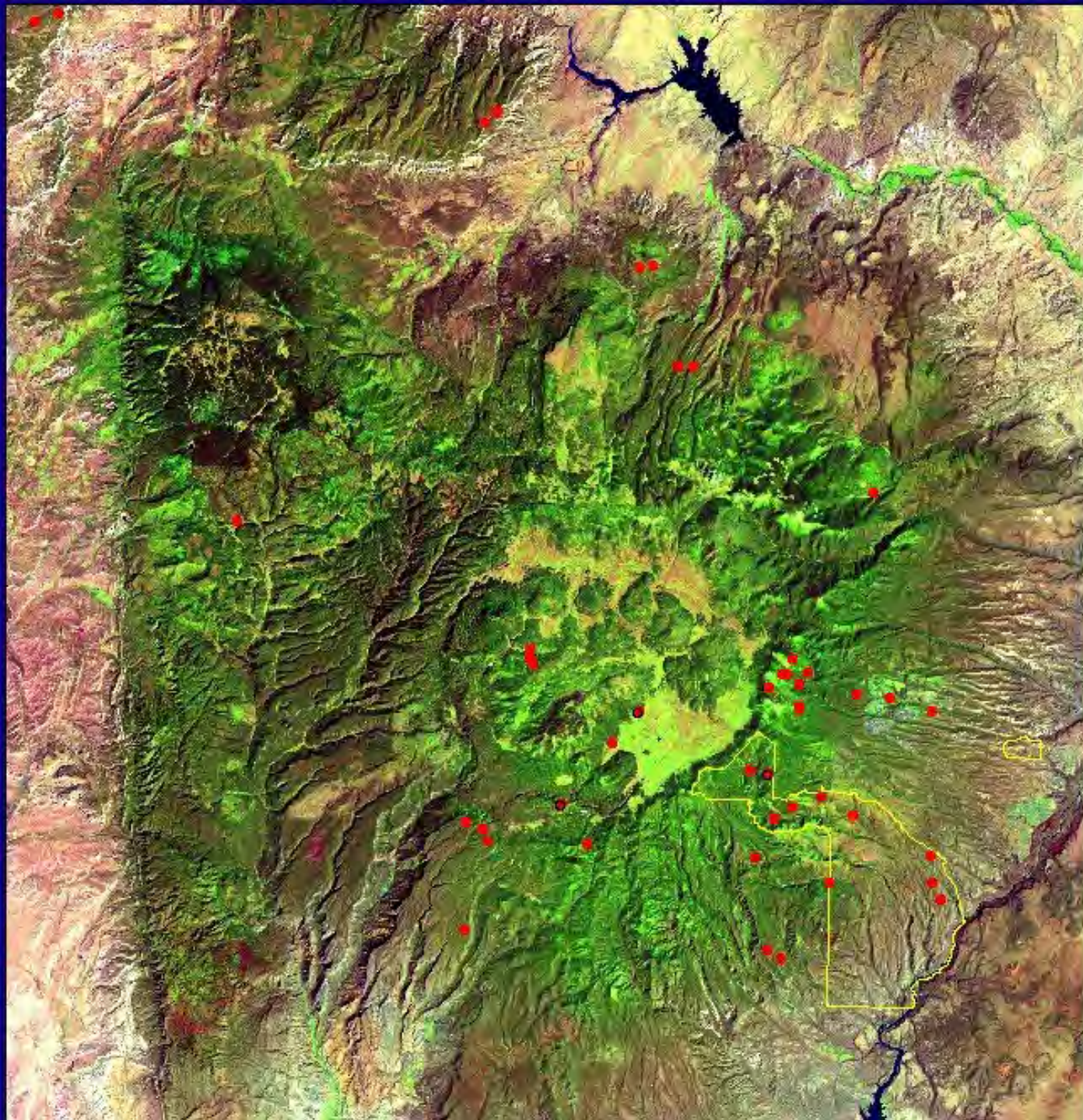
Santa Fe

Albuquerque

NEW
MEXICO

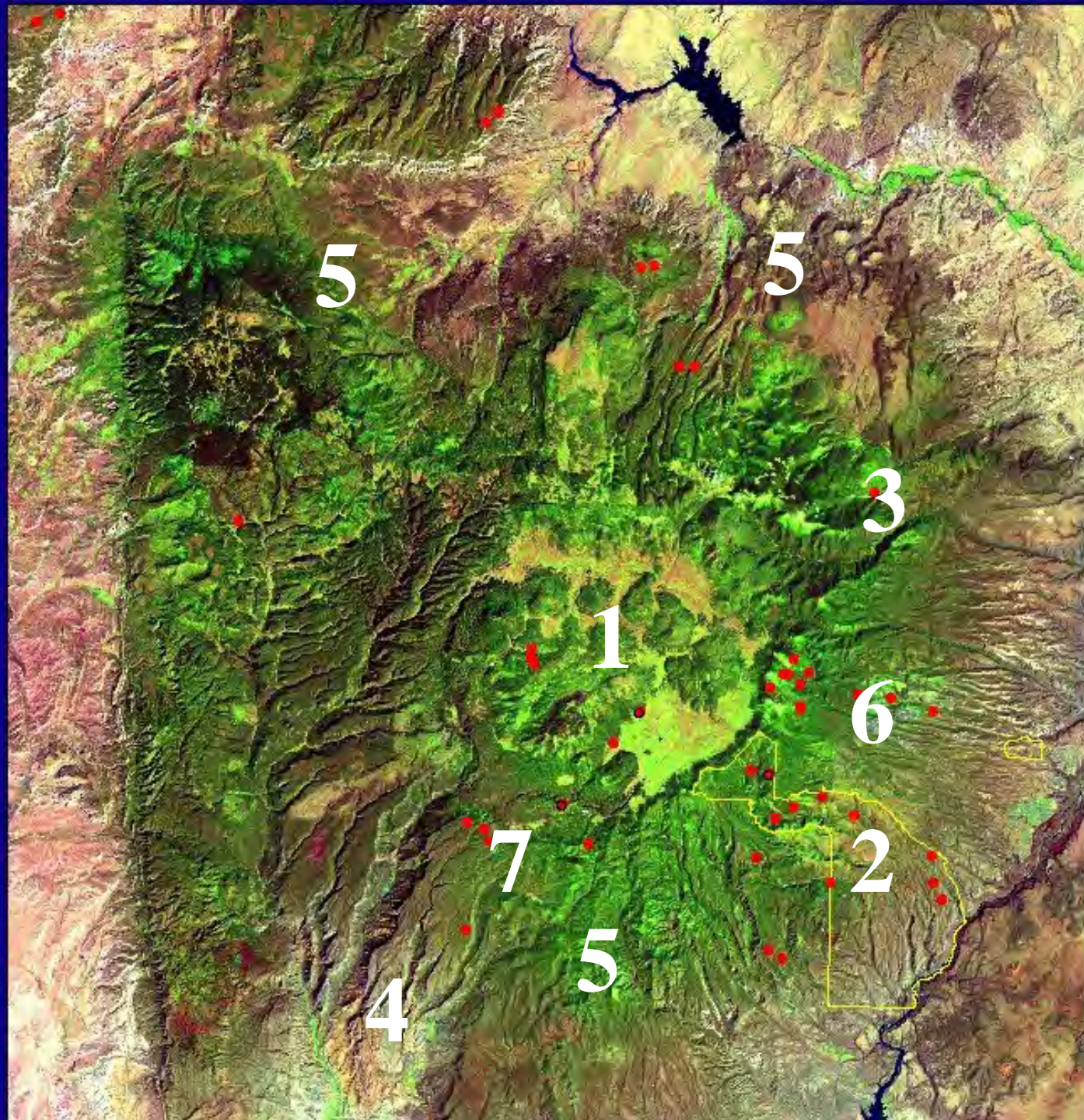


**Jemez
Mountains
and the
Valles Caldera
National
Preserve,
New Mexico**



Jemez Mountains Land Ownership or Management:

- 1. Valles Caldera
National Preserve,**
- 2. Bandelier National
Monument,**
- 3. Santa Clara
Pueblo,**
- 4. Jemez Pueblo,**
- 5. Three Ranger
Districts of Santa
Fe National Forest,**
- 6. Los Alamos,**
- 7. Many small
communities and
scattered
residences**



VALLES CALDERA



- **The Valles Caldera formed 1.23 million years ago from a volcanic eruption, creating an 11-15 mile wide circular caldera**
- **VCNP is renowned for its mountain meadows, meandering streams, and abundant wildlife**
- **Use of the caldera dates to prehistoric times by indigenous peoples. Many tribes, Spanish, Mexican and American settlers used the caldera for hunting, livestock grazing, timber and mining**

San Antonio Creek



San Antonio Creek

Photo: D. Usner



Photo: D. Usner



Photo: D. Usner



Photo: D. Usner

Valles Caldera - Variety of recreational opportunities, including trout fishing.



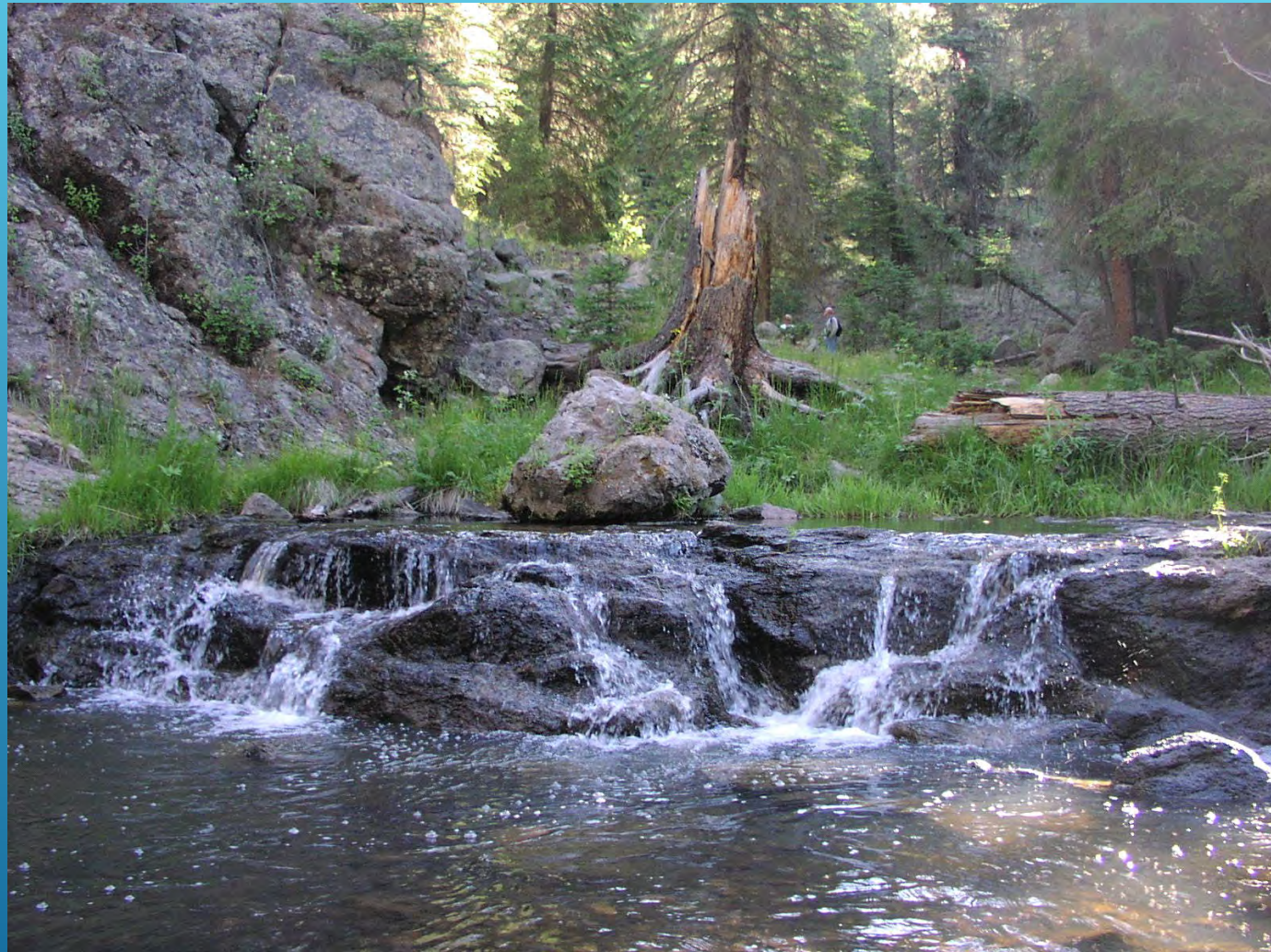
Valles Caldera National Preserve

- **Open to the public**
- **The top of the Jemez River watershed.**
- **89,000 acres.**
- **~75 miles of perennial streams.**
- **1st, 2nd and 3rd-order streams.**
- **Extensive wetlands and fens**



➤ **Riparian
habitats
range from
secluded
canyons...**

**East Fork Jemez
River in Hidden
Valley (west end of
Valle Grande)**



➤ ... to valle wetlands and fens.

East Fork Jemez River in Valle Grande



Don J. Usner



EXCEPTIONAL RECREATIONAL VALUE

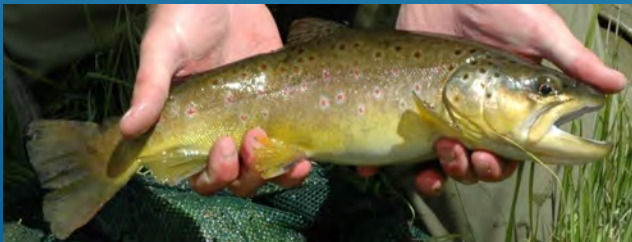
- **76,000 annual visitor contacts**
- **1,657 daily fishing permits in 2021(June-Dec.)**
- **Up to 35 backcountry vehicle passes each day**
- **San Antonio Creek and East Fork Jemez River are most visited streams; Redondo Creek is fifth**

East Fork Jemez River

EXCEPTIONAL FISHING ACROSS THE JEMEZ WATERSHED



- **East Fork Jemez: excellent for rainbow trout and brown trout**
 - **2020-21 NM license year: had more than 67,000 visitor days and 23,000 anglers**
- **San Antonio Creek: excellent for brown trout**
 - **2020-21 NM license year: had more than 32,800 visitor days and 13,700 anglers**



- **Early fish surveys found these streams have one of highest values of fish density and biomass in the western United States**
- **More than two fish per 100 meters of stream**

**Anglers on
San Antonio
Creek (Photo:
Don Usner)**





➤ **Many brown trout in 8-12” size, but some reach 18-22”**

Photo: Colleen Caldwell

EXCEPTIONAL RECREATIONAL OPPORTUNITIES



- All 3 streams are highly popular recreation spots, attracting hikers, backpackers, wildlife and bird watchers, picnickers, mountain bikers, snow shoeing, horseback riders, and wildlife photographers
- Streams are accessible to the public

EXCEPTIONAL ECOLOGICAL VALUE



- **Each stream is critical to maintaining water resources and adjacent wetlands and fens**
- **The East Fork and San Antonio contribute to water storage and water table maintenance**
- **Redondo Creek provides habitat for the federal and state endangered New Mexico meadow jumping mouse**

HABITAT PROTECTION



- **Livestock is grazed in upland pastures, with no perennial streams, ensuring jumping mouse habitat is undisturbed**
- **VCNP's collaborating partners have obtained grants to restore willows and other riparian shrubs to protect the streams**
- **Enhancing jumping mouse habitat and preparing for beaver recolonization**

➤ **Redondo Creek**

CONSERVATION



Rio Grande Chub



Rio Grande Sucker



Longnose Dace

- **VCNP staff have successfully reintroduced the Rio Grande chub and Rio Grande sucker, both native fish, to the San Antonio Creek**
- **Both are Species of Greatest Conservation Need (SGCN), and are being considered for federal protection**
- **Both species, plus the longnose dace, now have stable, reproducing populations in San Antonio Creek and East Fork Jemez River**

CONSERVATION



- **VCNP staff have reintroduced the extirpated northern leopard frog, also an SGCN, to the streams and wetlands in the preserve**
- **These frogs have dispersed in large numbers to the watersheds of San Antonio, East Fork, and Redondo watersheds**
- **ONRW designation will enhance protections for these at-risk species**

Northern Leopard Frog reintroduction, 2014

Mirror Lake in upper Redondo Creek watershed



FUTURE ACTIVITIES THAT MIGHT REDUCE WATER QUALITY



- Climate warming, with reduced stream flows and increased temperatures and salinity
- Forest fires – *recent example*:
 - Cerro Pelado fire: ~1,200 acres on Valles Caldera Nat. Preserve
 - VCNP closed during May
- Trespass cattle

Cerro Pelado fire map (5/13/22)



**THE NATIONAL PARK SERVICE AND
VALLES CALDERA NATIONAL PRESERVE
conclude that these streams exhibit exceptional
ecological and recreational qualities, and we support
designation of the East Fork Jemez River, San Antonio
Creek, and Redondo Creek as ONRW streams**





Thank you! Questions?



Photo: Don Usner