



# **Silver Lake Flat Dam Rehabilitation Supplemental Watershed Plan - Environmental Assessment**



**McMILLEN, LLC**

# Public Scoping Meeting Agenda

- 6:00PM – 9:00PM
  - Project Presentation
  - Formal Oral Comment Period
    - Comments, Questions and Concerns
  - Open House



# Silver Lake Flat Dam Rehabilitation

- Project Team

- North Utah County Water Conservation District

- Sponsor and Responsible for Dam Maintenance

- Natural Resources Conservation Service

- Funding Agency through the Small Watershed Rehabilitation Amendments (PL 106-472)

- Utah Division of Water Resources

- Project Engineer

- United States Forest Service

- Property Owner

- McMillen, LLC

- NEPA Consultant



# National Environmental Policy Act

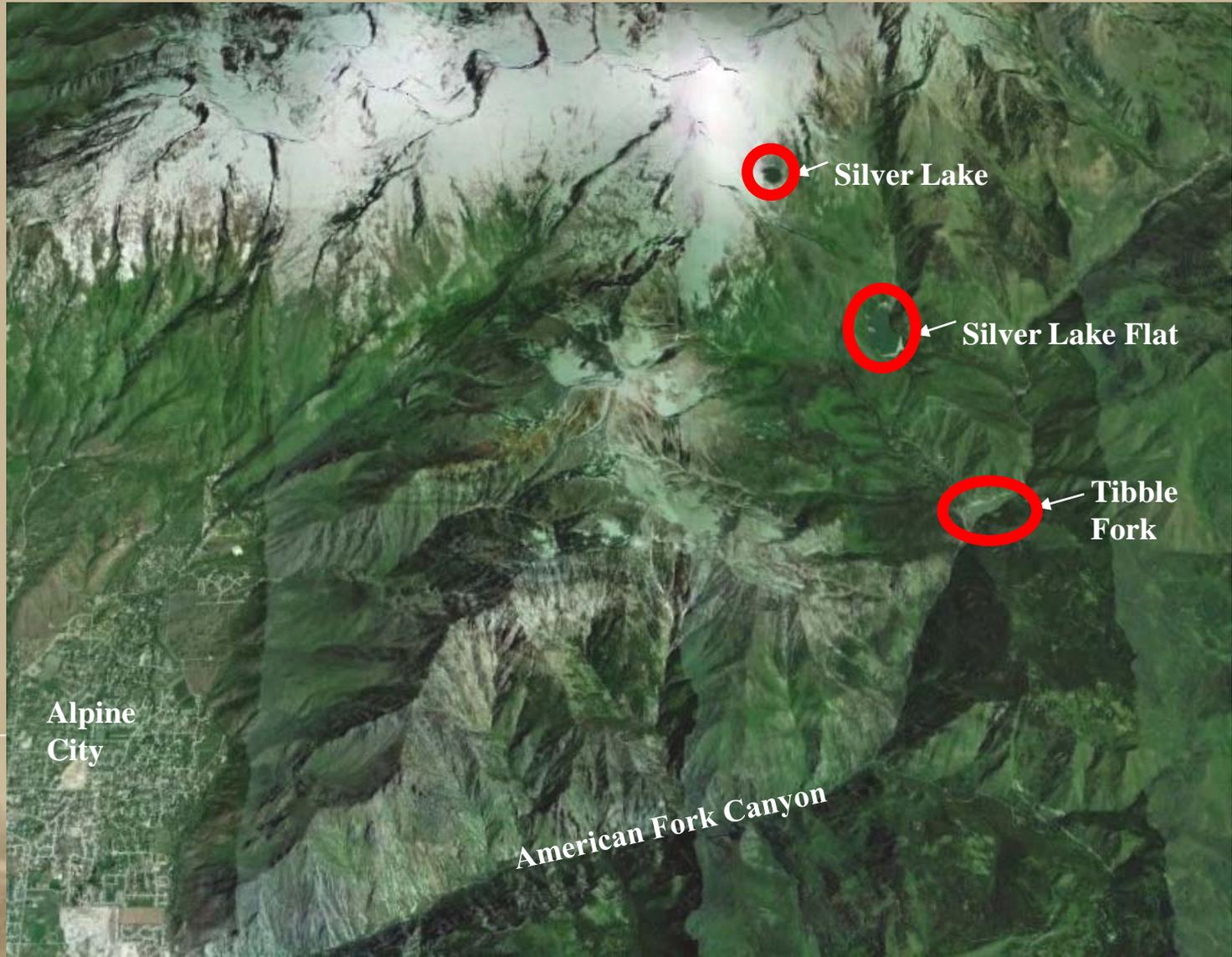
- NEPA

- National Environmental Policy Act (NEPA) of 1969 (Public Law 91-190) and the Council on Environmental Qualities regulations at 40 CFR Parts 1500-1508
- NRCS is the funding agency for the project (65%)
- USFS is a cooperating agency
- Public comment during the public scoping and draft environmental assessment

- Supplemental Watershed Plan - Environmental Assessment

- NRCS and USFS NEPA requirements

# Vicinity Map



# Silver Lake Flat Dam Rehabilitation (Contd.)

- Project Purpose
  - Meet Utah Dam Safety Regulations and Engineering Standards
  - Extend the Life of the Dam
  - Increase Reservoir Storage Capacity

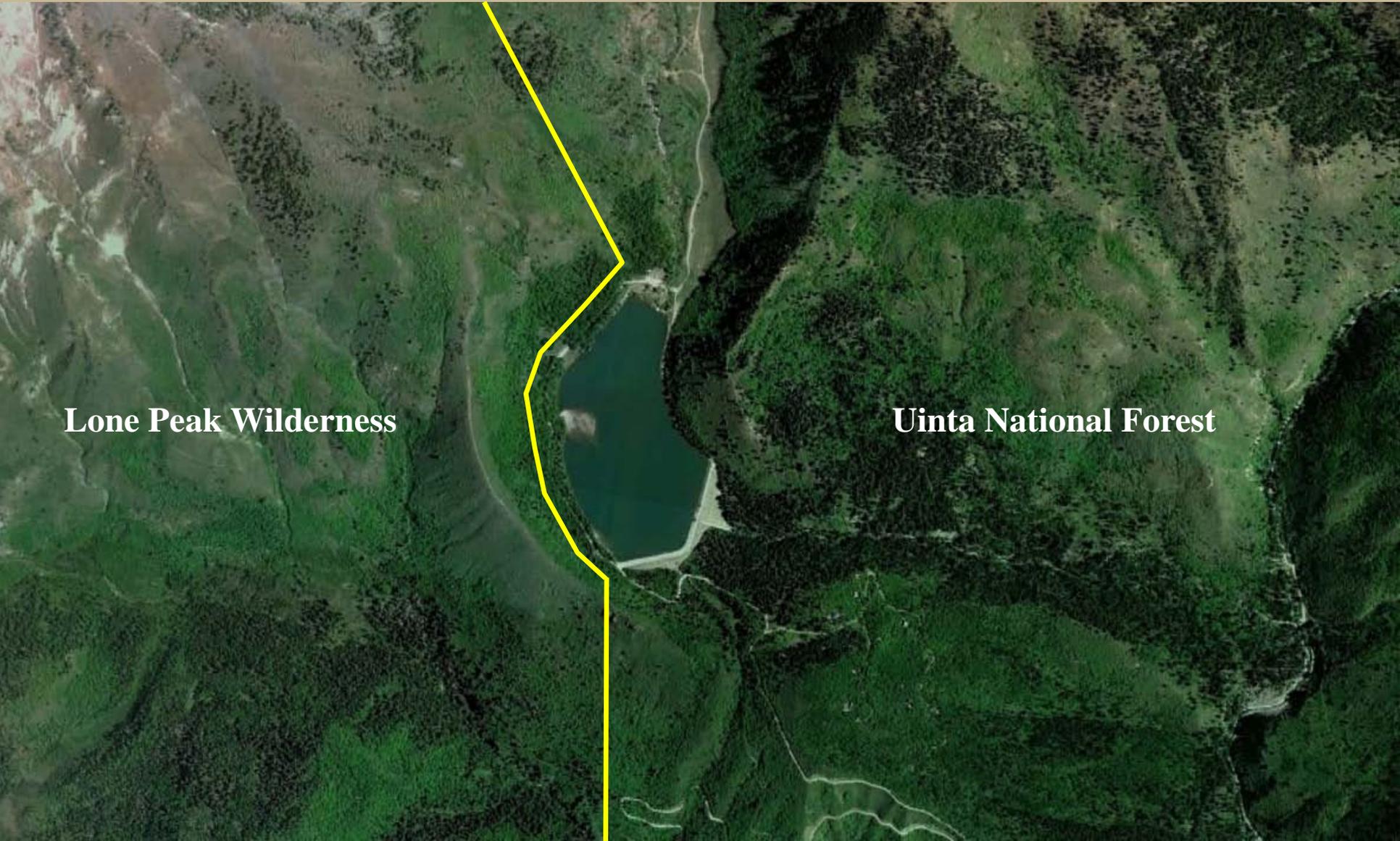


# Silver Lake Flat Dam History

- Completed in 1971
- Classified as a Class “C” High Hazard Dam
- Originally built for irrigation storage
  - Flood Retention
  - Sediment Retention
  - Recreation
- 50-year life



# Silver Lake Flat Map

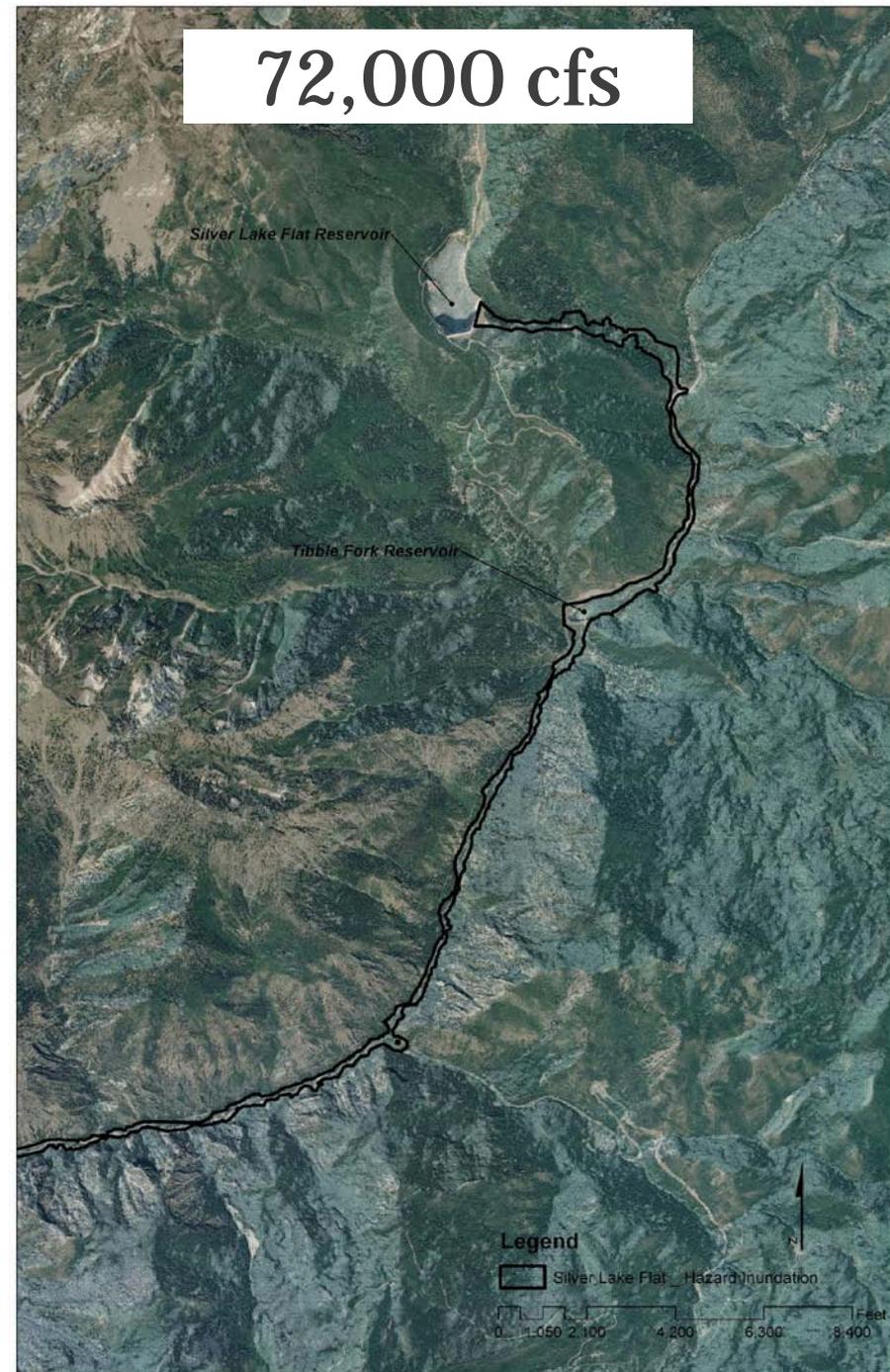


**Lone Peak Wilderness**

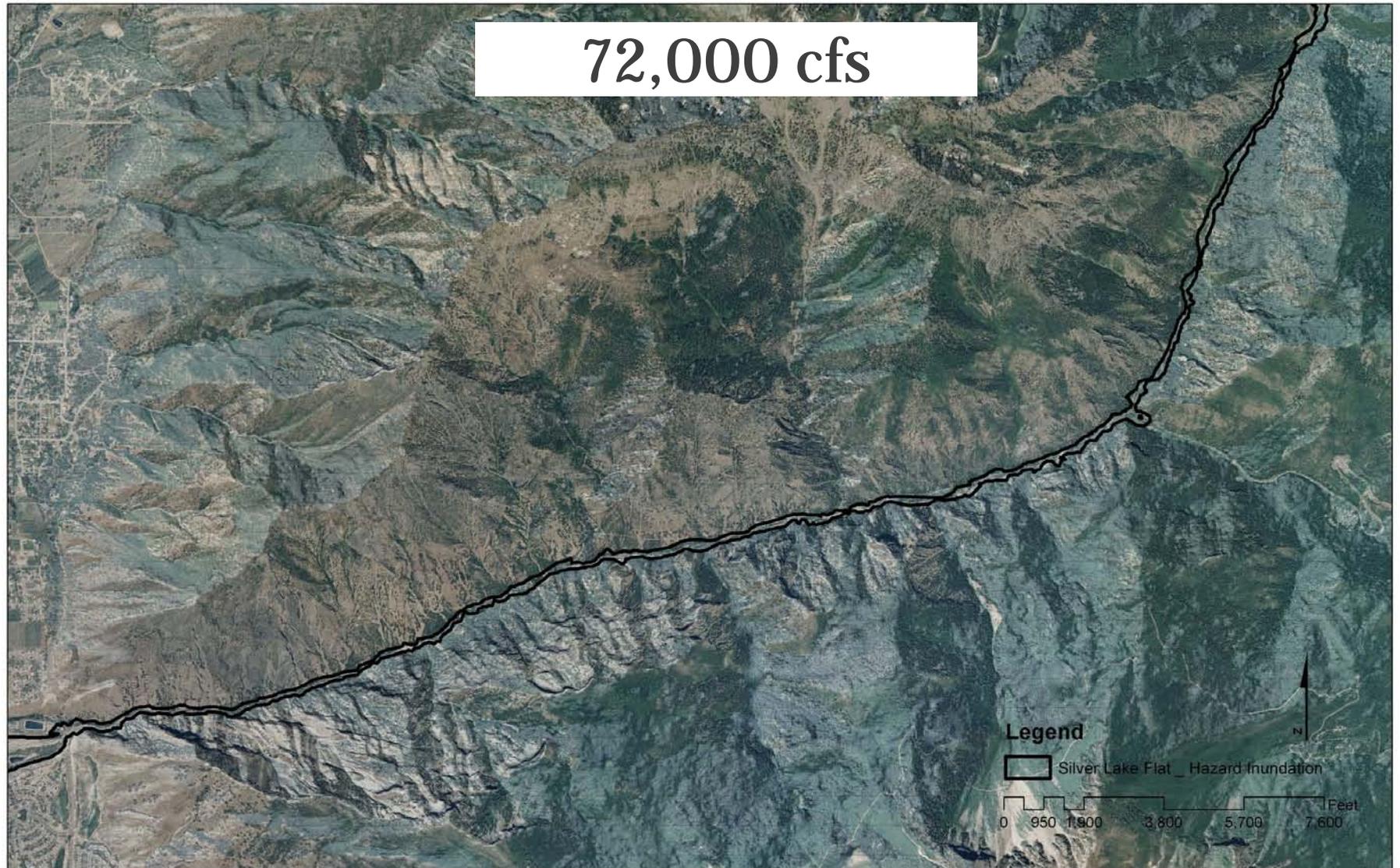
**Uinta National Forest**

# Dam Breach Map 1

- Breach in Left Abutment

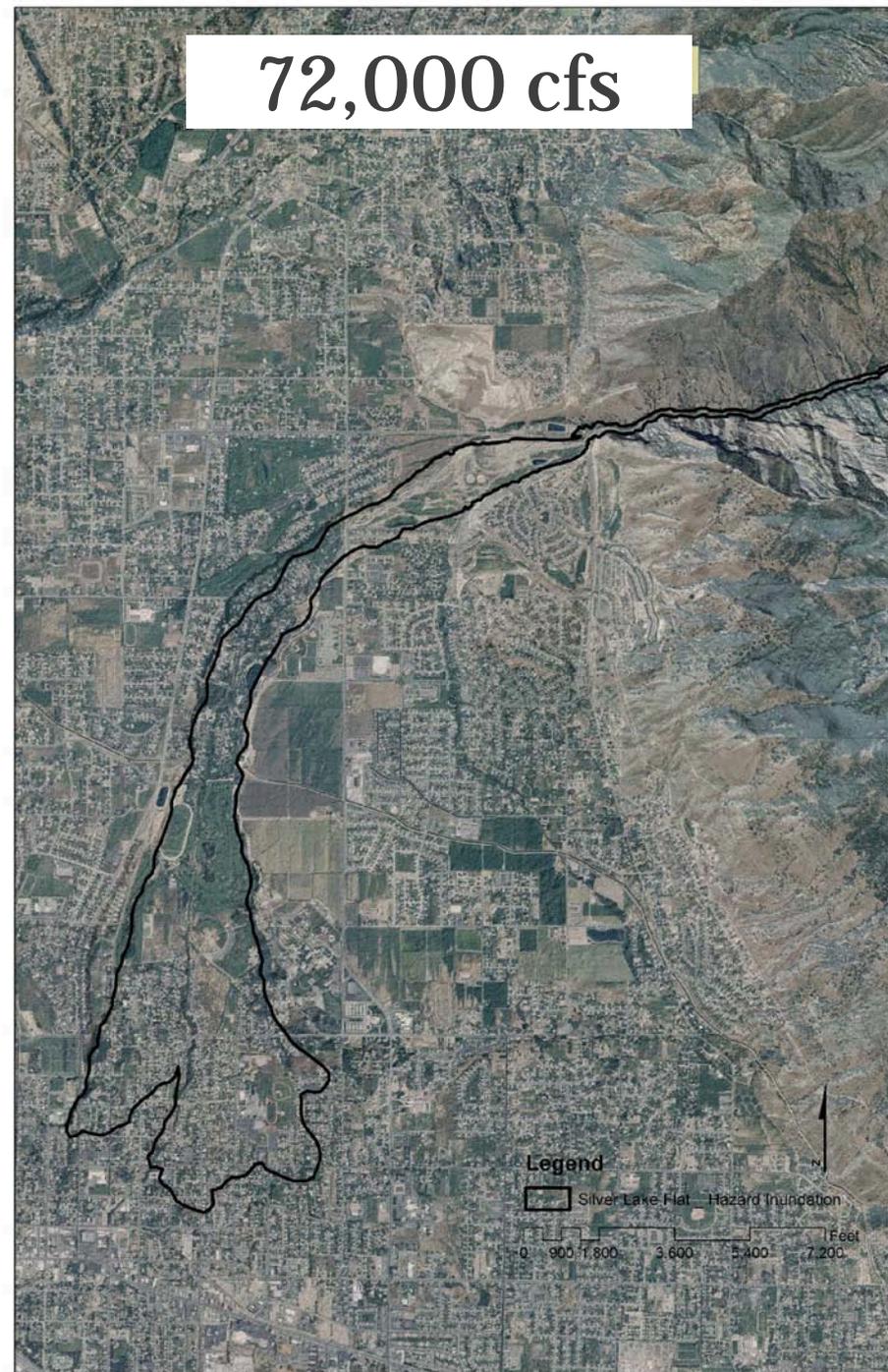


# Dam Breach Map 2



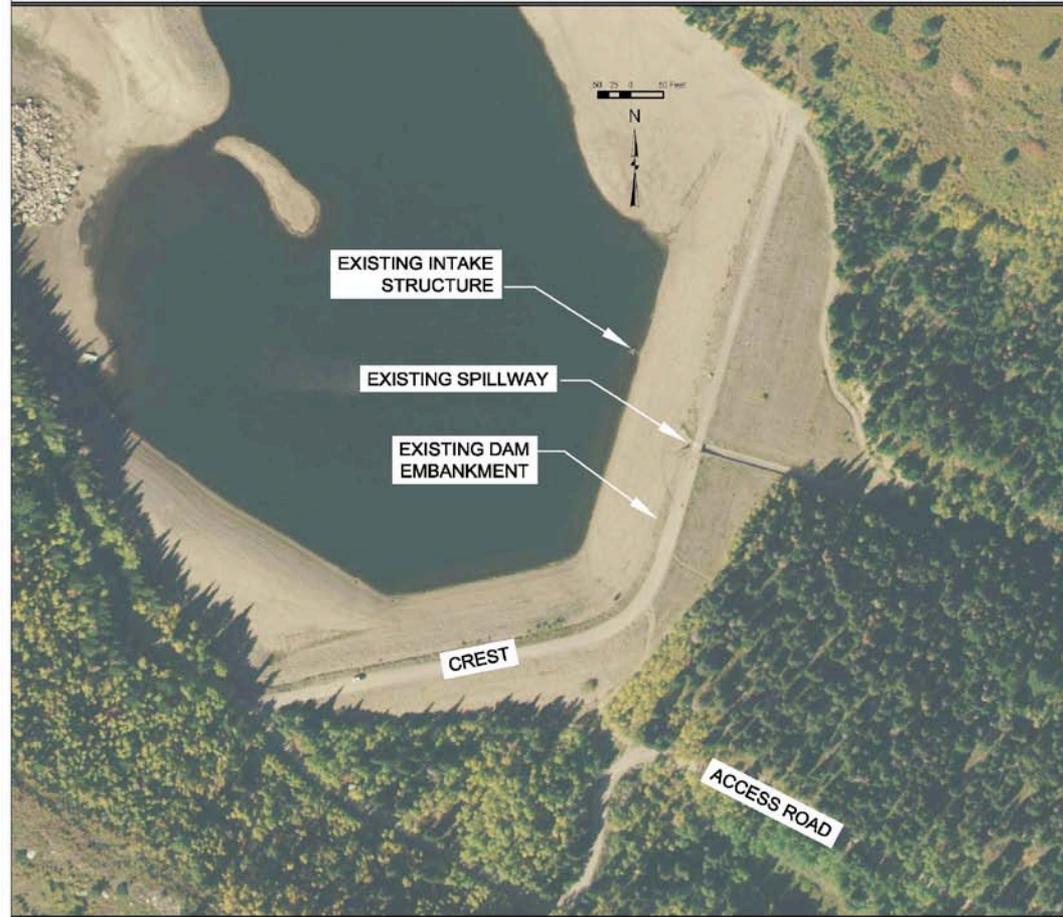
# Dam Breach Map 3

- Highland
- American Fork



# Existing Conditions

## Silver Lake Flat Dam Existing Conditions of Dam



**LEGEND:**

CREST ELEV. 7534'  
EXISTING SPILLWAY ELEV. 7525'  
CURRENT STORAGE = 1033 ac ft



# Project Alternatives

- No Action
- Dam Decommissioning
- Dam Rehab Replace Spillway
- Dam Rehab New Spillway



# No Action

- Leave Dam and Reservoir “As-Is”

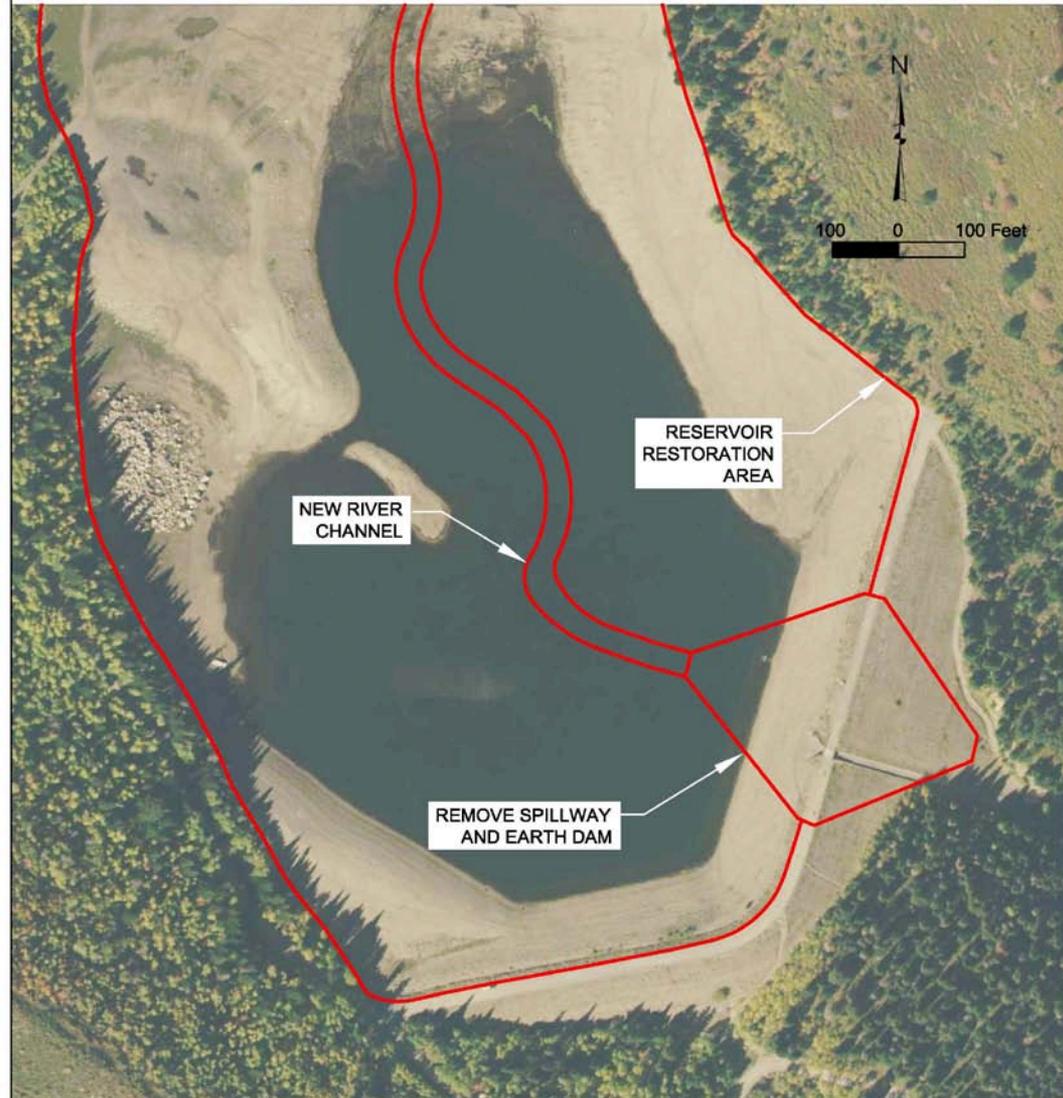


# Dam Decommissioning

- Create Breach in Dam
  - Unobstructed Natural Flow
  - Create River Channel
  - Restore Pool Area

## Conceptual Silver Lake Flat Dam Decommissioning

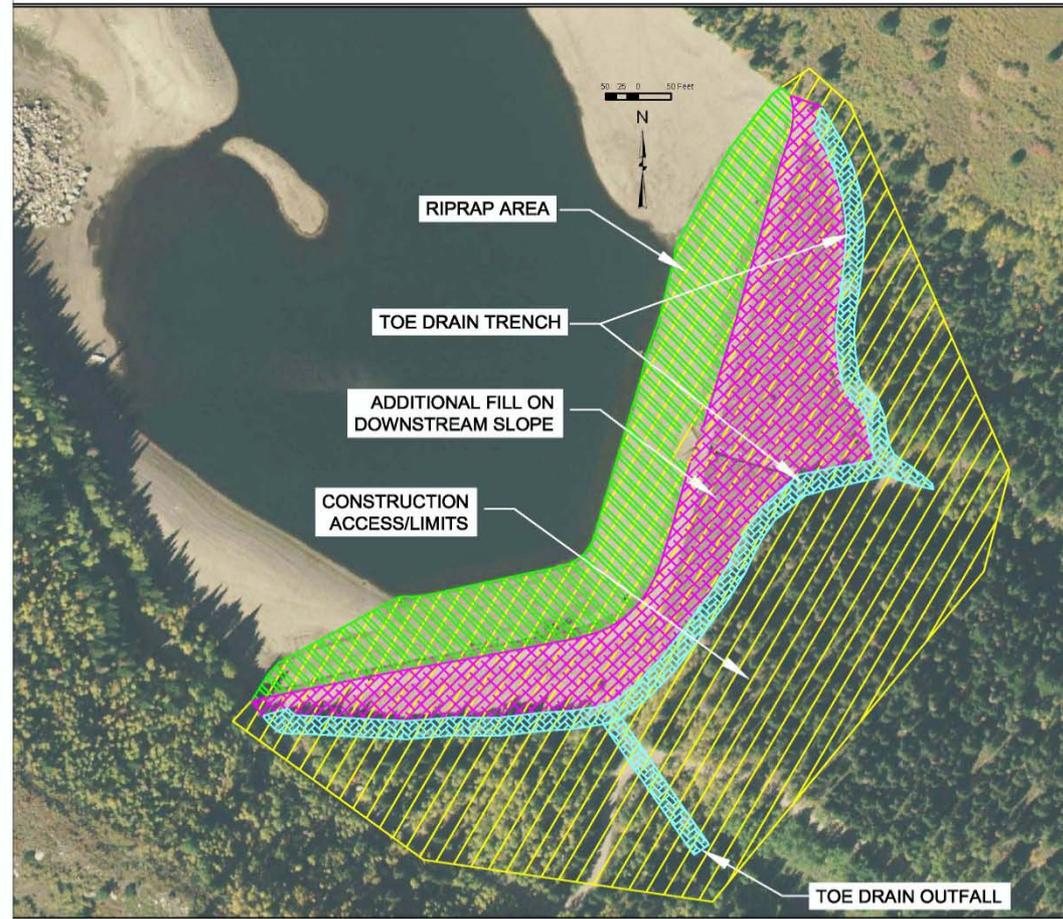
~125,000 Cubic Yards



# Dam Rehab Alternatives

- Riprap on the upstream face
- Fill on the downstream face
- Install toe drain
- Upgrade the existing spillway capacity
- Replace outlet gate

## Silver Lake Flat Dam Work Plan



### LEGEND:

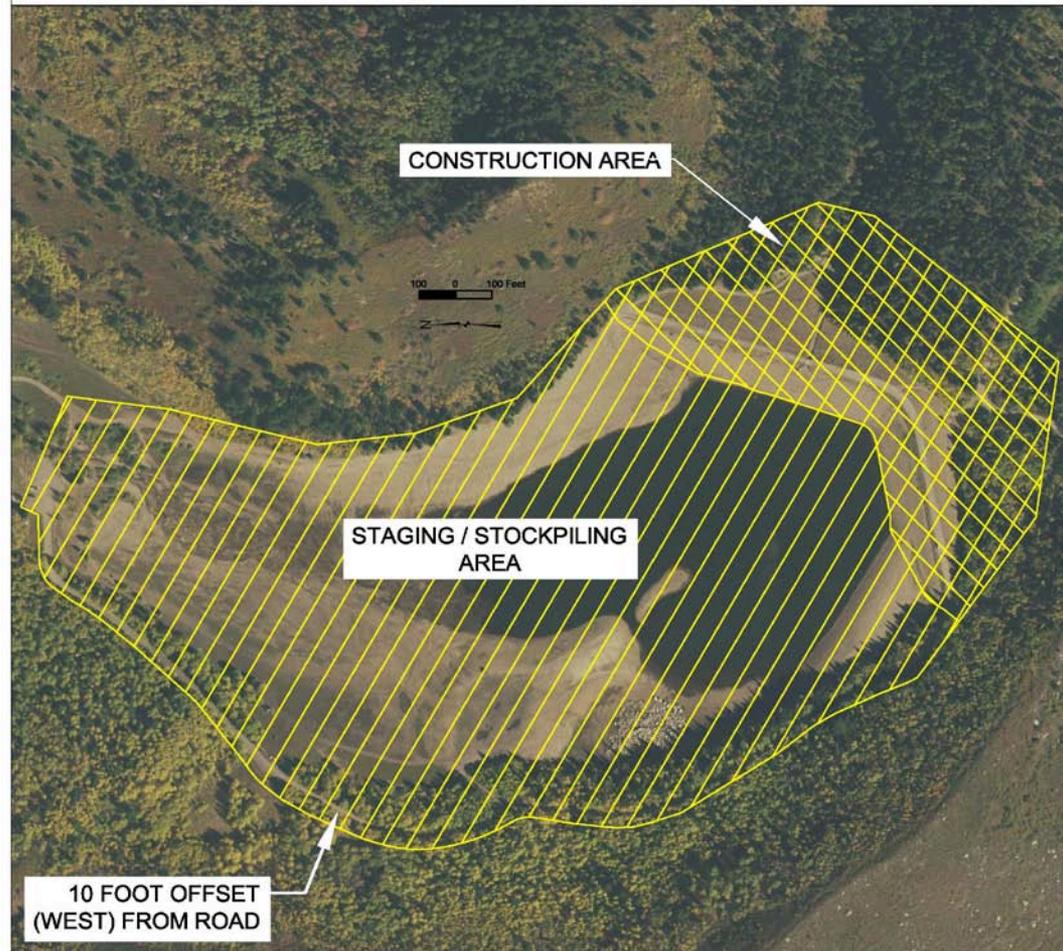


NEW CREST = 7535.5'  
NEW SPILLWAY = 7526.5'  
NEW STORAGE = 1100.7 ac ft

# Dam Rehab Alternatives Work Area

- Construction Area
- Staging/Stockpiling Area

## Silver Lake Flat Dam Staging Area





# Dam Rehab Storage Capacity

- Currently 7.5 feet of freeboard to spillway crest
- Raise dam fill and spillway crest 1.5 feet
- Increase spillway capacity approx. 4x

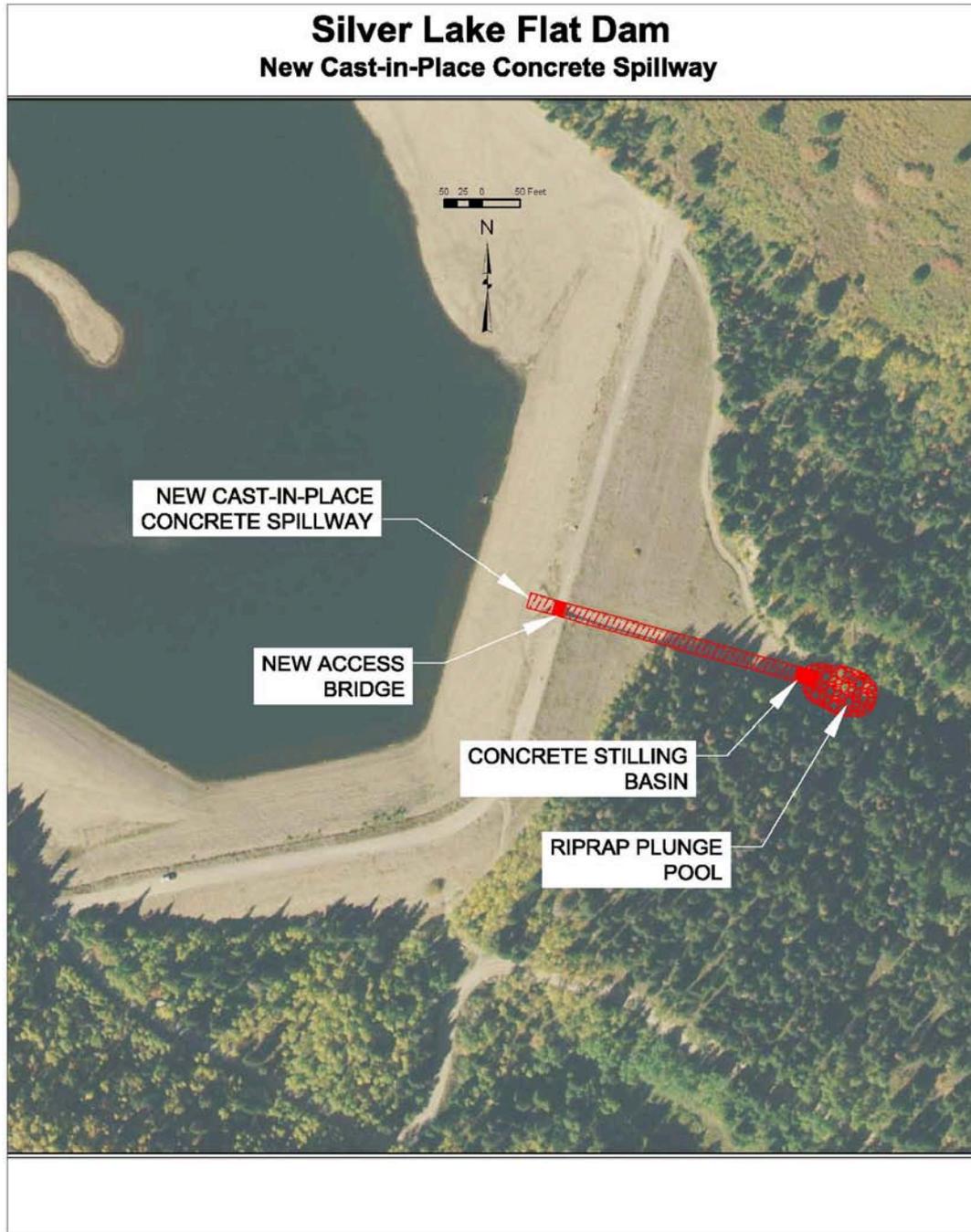
## Silver Lake Flat Raise 1.5 Feet



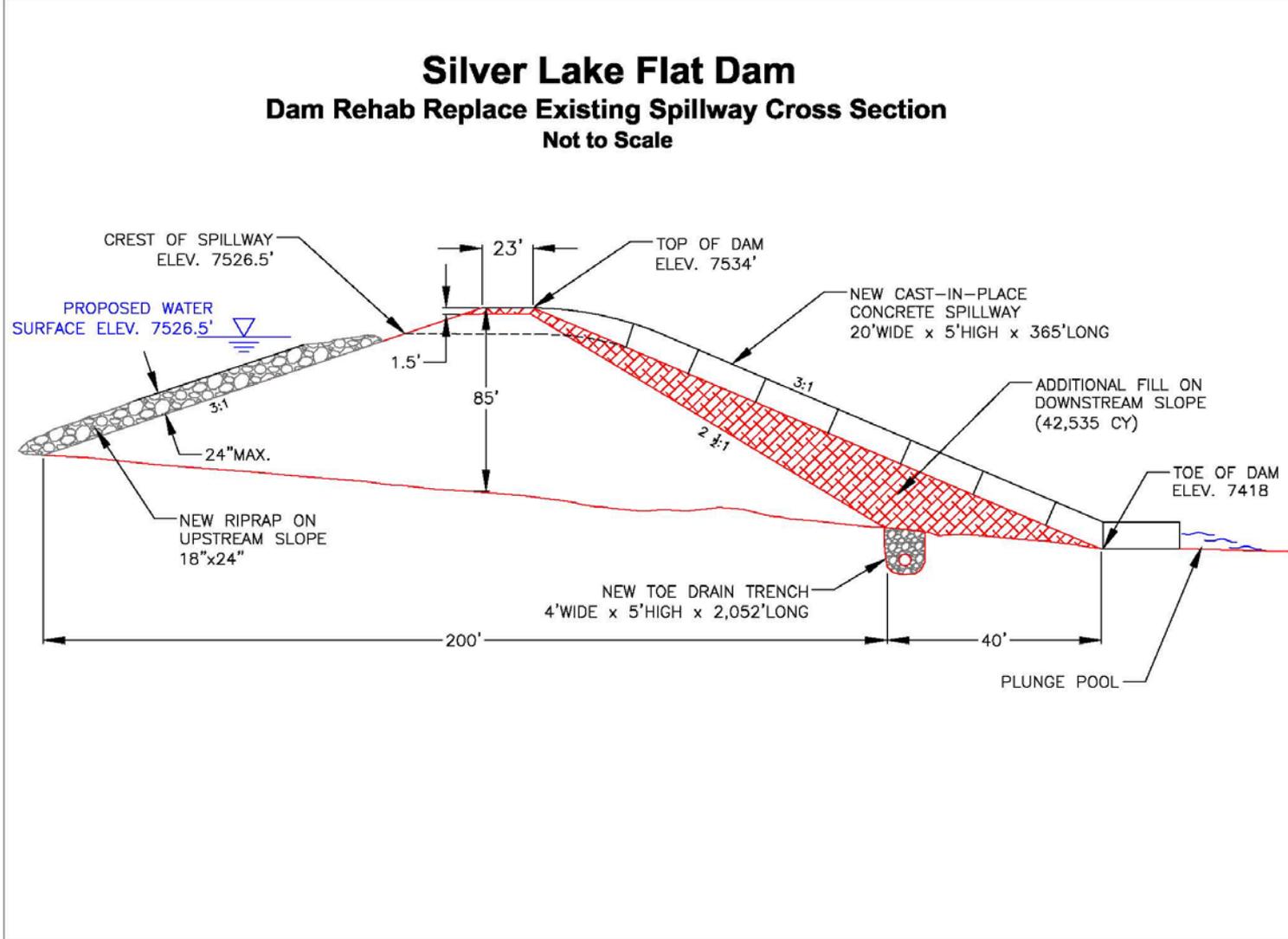
# Dam Rehab

## Replace Spillway

- Demolish existing spillway
- Install spillway in same location



# Dam Rehab Replace Spillway Typical Cross Section



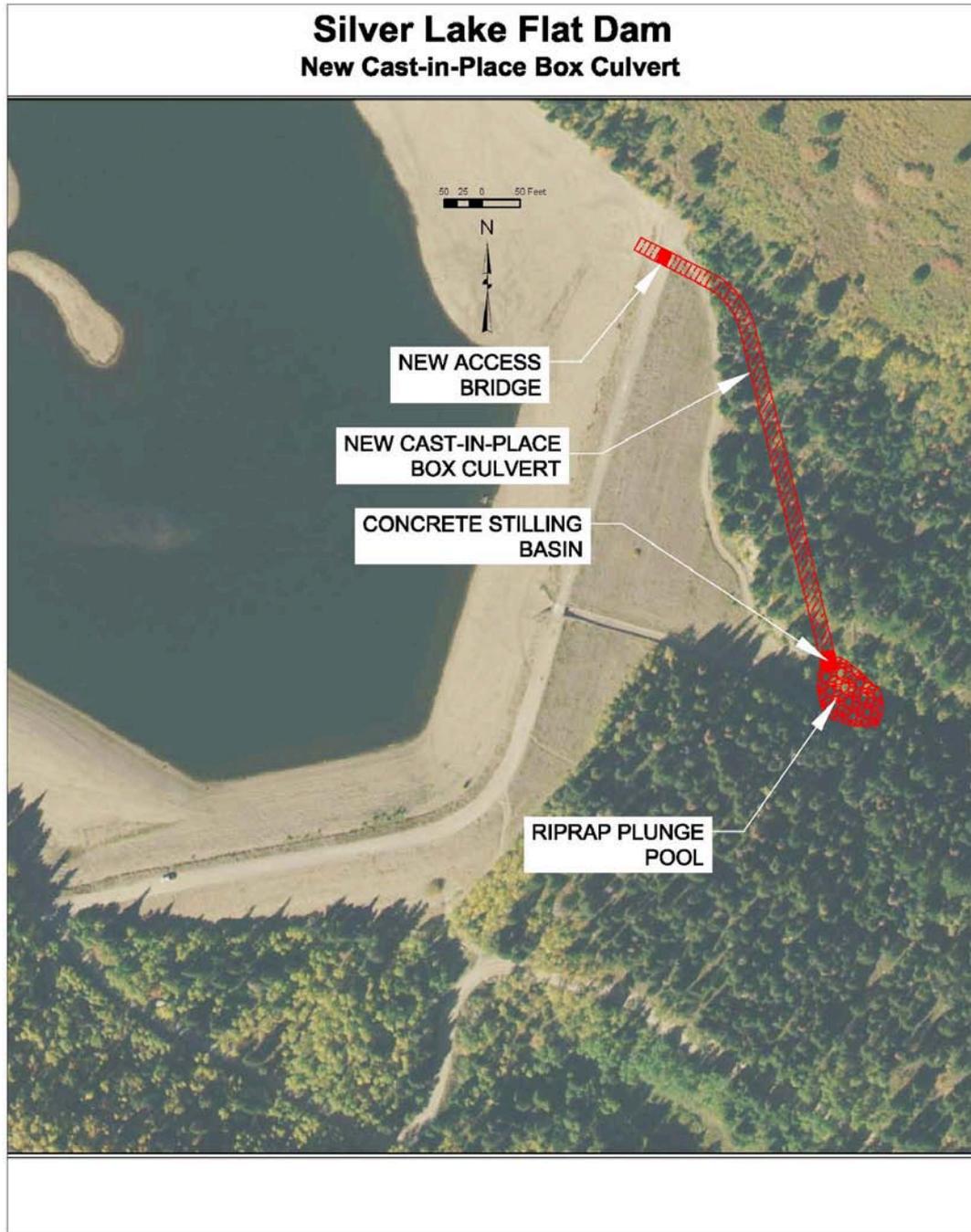






# Dam Rehab New Spillway

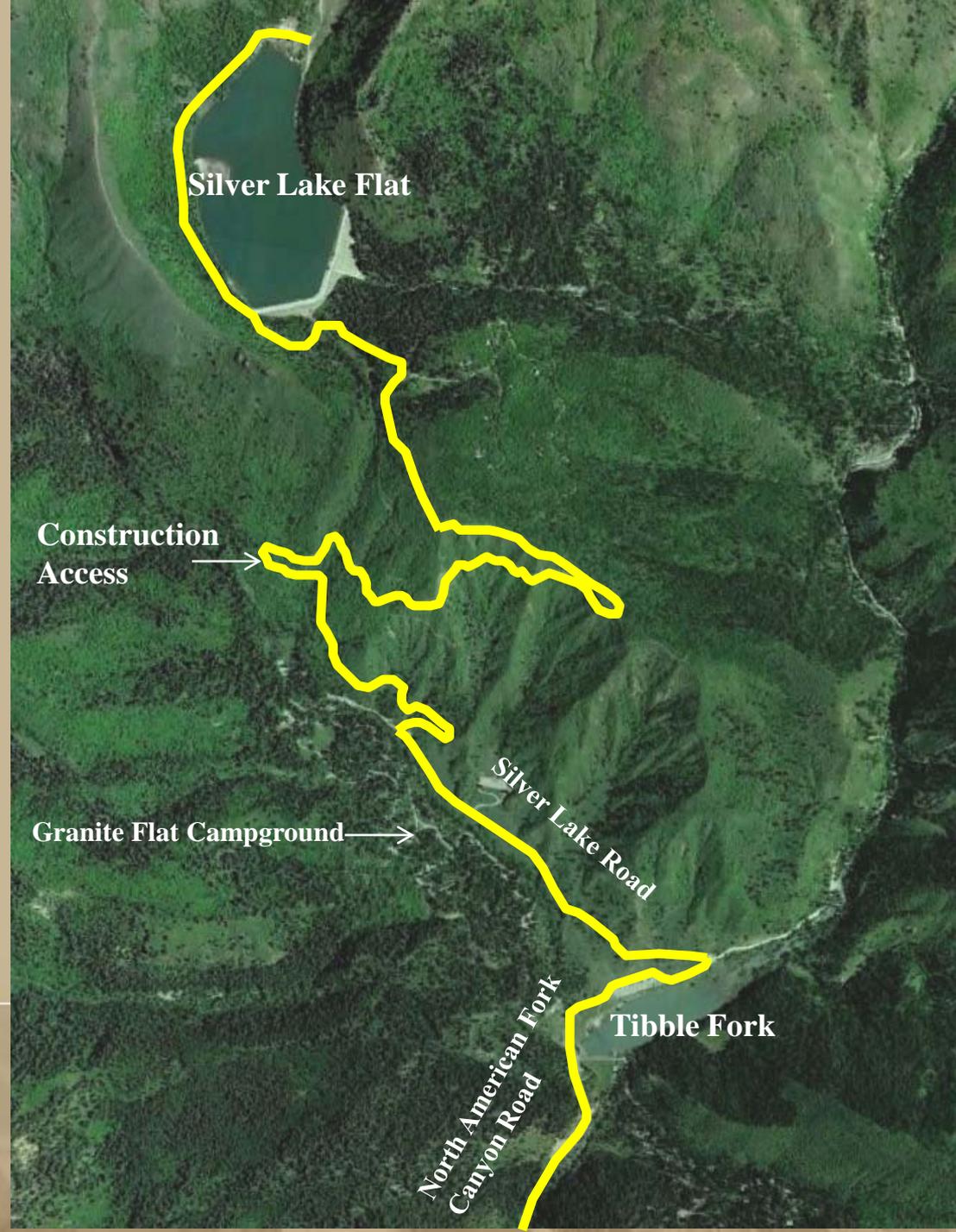
- Demolish existing spillway and fill
- Install new spillway on left abutment





# Construction Access Map

- Approx. 10 - 30 trucks per day (Monday – Friday excluding holidays)
- Season 1
  - Start: May 1, 2013
  - End: October 31, 2013
- Season 2
  - Start: May 1, 2014
  - End: October 31, 2014



# Preliminary Resource Concerns

- Geology and Soils
- Water Quality/Quantity
- Fish
- Wildlife
- Plants
- T and E Species
- Cultural
- Recreation
- Visual and Noise
- Transportation
- Socioeconomics



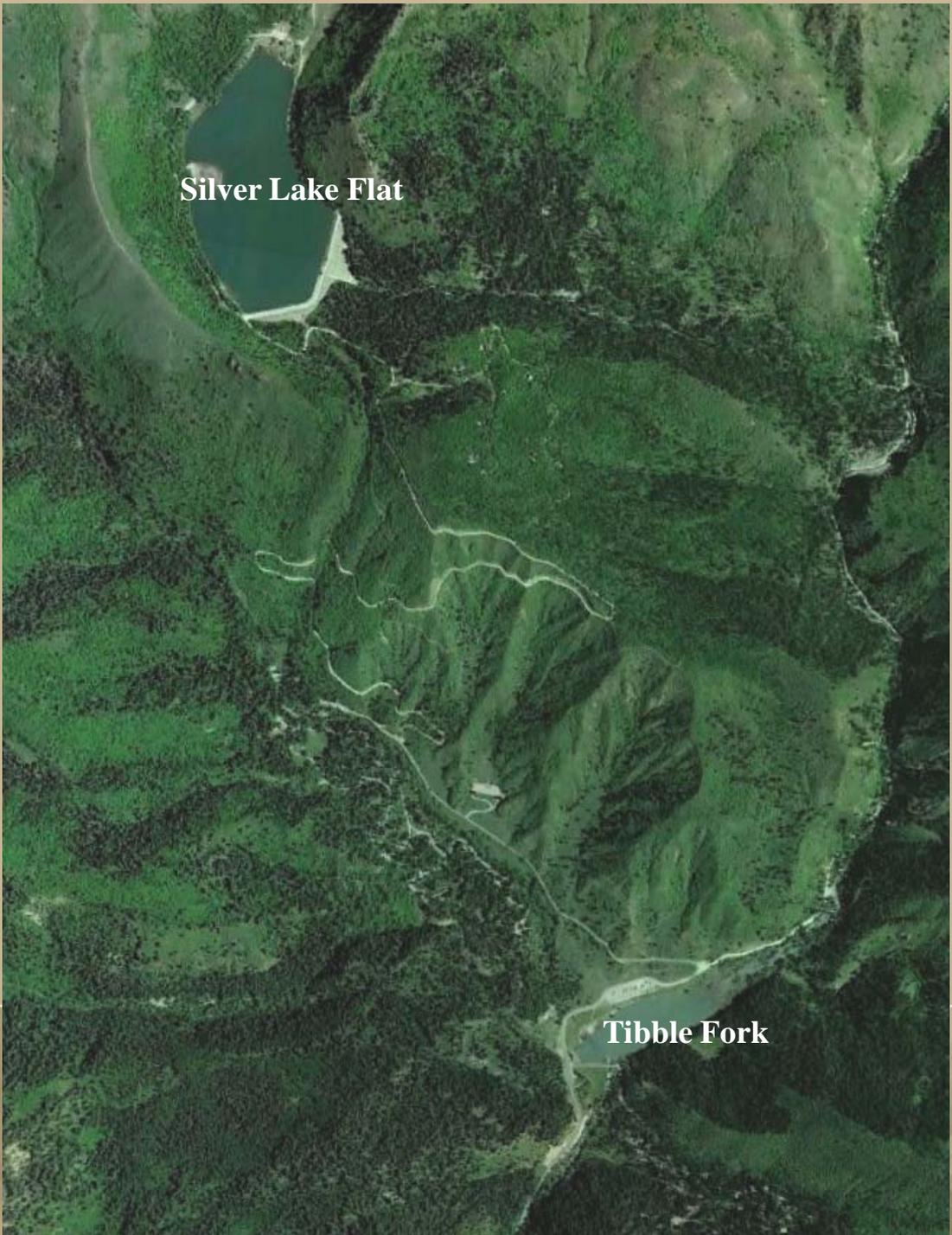
# Public Scoping Scoping

- Questions, Comments and/or Concerns
- Oral Comment
- Written Comment
  - Email
  - Mail
  - Fax
- Public Scoping Comment Period  
Ends May 11, 2012



**McMILLEN, LLC**



An aerial photograph of a mountainous region. A large, irregularly shaped lake is situated in the upper left quadrant. A river flows from the bottom center towards the right side of the image. The terrain is covered in dense green vegetation, with some lighter-colored areas that could be roads or cleared land. The overall scene is a natural, rugged landscape.

**Silver Lake Flat**

**Tibble Fork**





50 25 0 50 Feet

N

EXISTING INTAKE  
STRUCTURE

EXISTING SPILLWAY

EXISTING DAM  
EMBANKMENT

CREST

ACCESS ROAD

