Uintah Basin Replacement Project

An Overview of Environmental Mitigation with Emphasis on the Stabilization of Thirteen High Mountain Lakes

CUP Completion Act

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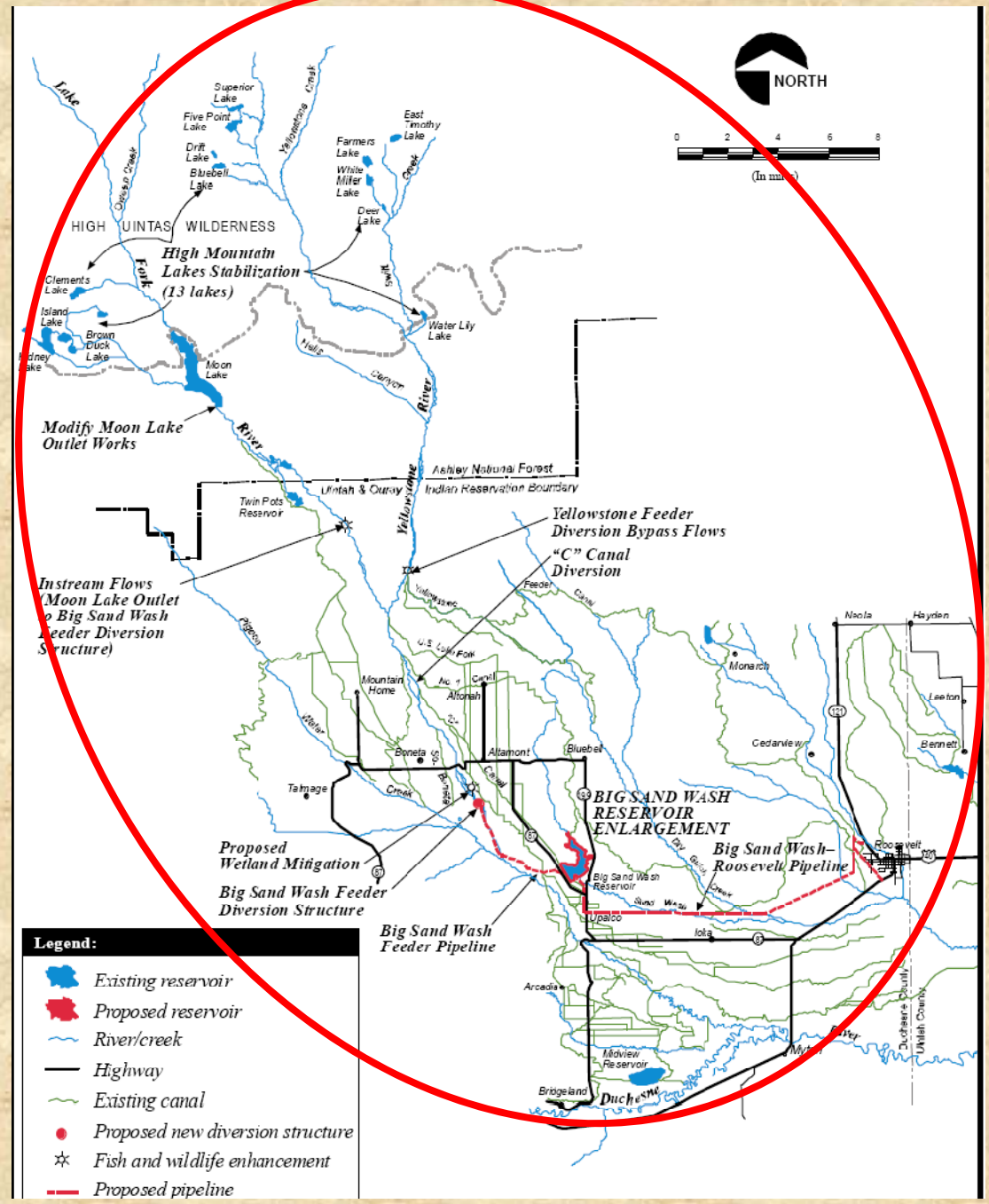
Utah Reclamation Mitigation
and Conservation Commission

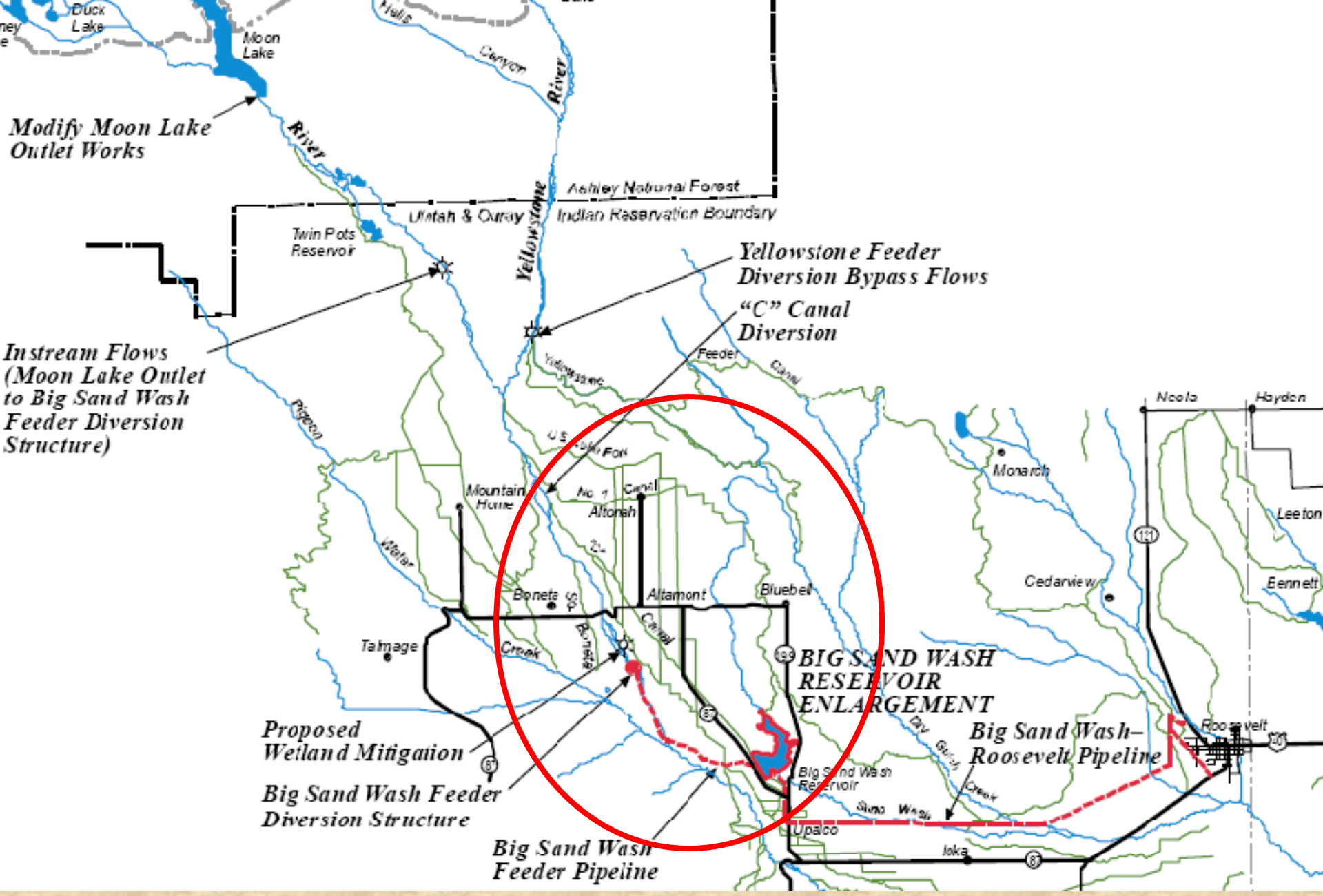
Uintah Basin Replacement Project

- CUPCA Section 203 authorized the Uintah Basin Replacement Project (UBRP), which could be built in conjunction with or separate from the Uintah and Upalco Units
- CUWCD and DOI issued a Draft Environmental Assessment on the UBRP in February 2001, and a Final in October 2001
- Construction began in 2003



The UBRP Project is a smaller-scale project than either of the original Uintah Unit or Upalco Unit proposals.

Provides supplemental irrigation water; M&I water to Roosevelt; and environmental mitigation and conservation


Modify Moon Lake Outlet Works
Instream Flows (Moon Lake Outlet to Big Sand Wash Feeder Diversion Structure)
Yellowstone Feeder Diversion Bypass Flows
"C" Canal Diversion
BIG SAND WASH RESERVOIR ENLARGEMENT
Big Sand Wash–Roosevelt Pipeline
Proposed Weiland Mitigation
Big Sand Wash Feeder Diversion Structure
Big Sand Wash Feeder Pipeline
Moon Lake
Duck Lake
Twin Pots Reservoir
Ashley National Forest
Uintah & Ouray Indian Reservation Boundary
Yellowstone River
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Mountain Home
Altonah
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Bluebell
Boneta
Tabiona
Talmage
Monarch
Cedarview
Neola
Haydon
Leeton
Bennett
Roosevelt
Upalco
Ioka
Big Sand Wash Reservoir
Dry Gulch Creek
Sims Wash

Big Sand Wash Diversion Dam and Feeder Pipeline

Completed in March 2004

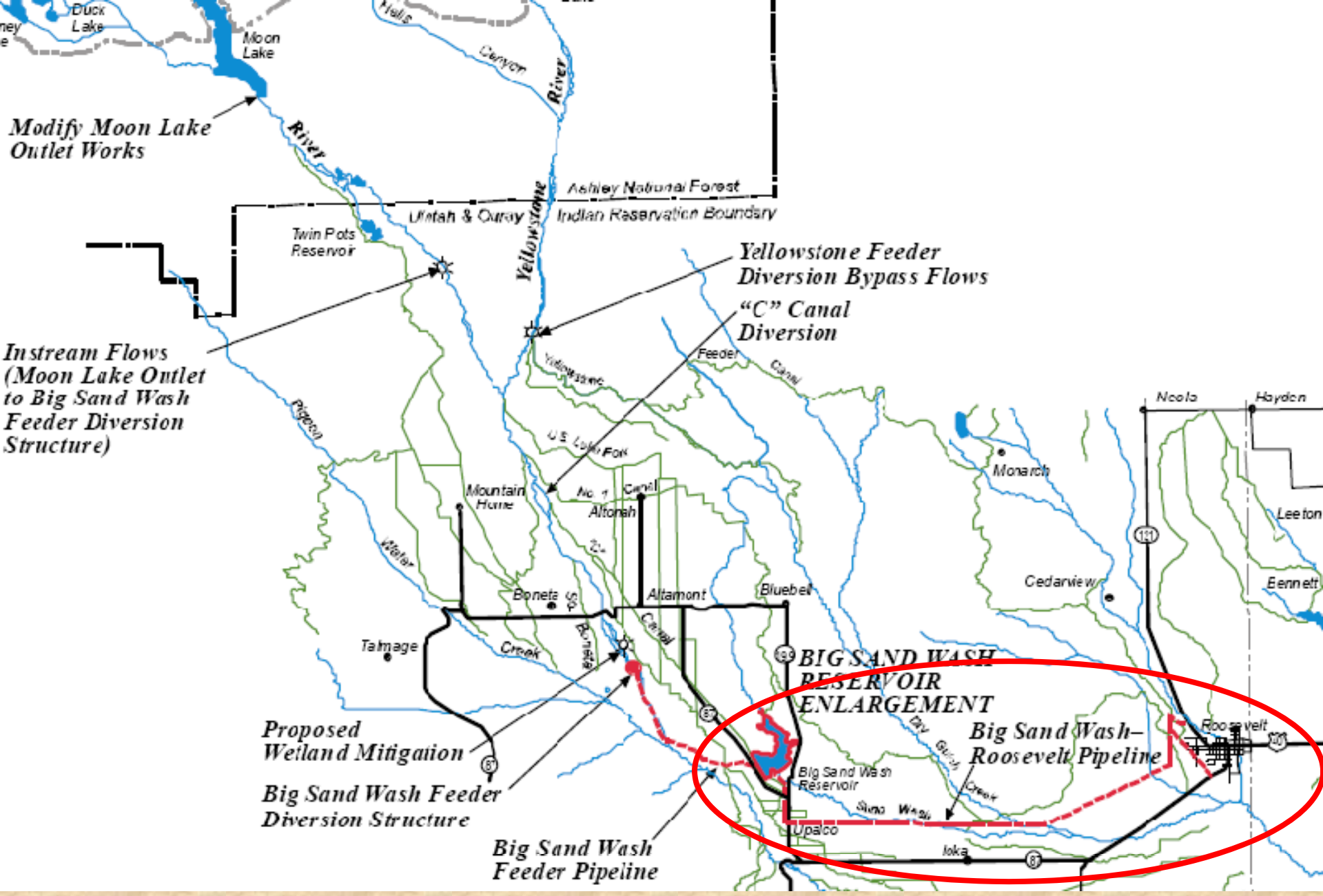
Big Sand Wash Dam and Reservoir Enlargement

Dam is complete and expected to fill in 2007

Big Sand Wash Reservoir Enlargement

Dam	Existing	Enlarged
Structural Height (ft)	**110**	**136 (+26 ft)**
Embankment Volume (cubic yards)	**0**	**300,000 additional**
Conservation Pool	**1,200 acre-feet**	**1,200 acre-feet**
Active Pool	**10,900**	**22,900**
Total Pool	**12,100**	**24,100**

+ 12,000 acre-feet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BSW to Roosevelt Pipeline

Main 32” pipe is ~58% complete and should be completed in 2007

Environmental and Mitigation Features Include

- Wetland Mitigation
- Stabilization of thirteen high mountain lakes

- Instream Flows and Fish Passage

Wetland Mitigation for BSW Reservoir Enlargement

- Analysis showed 5.69 acres of permanent impact
- Initial plan approved by the Army Corps of Engineers under the Section 404 Permit was for creation of 7.5 acres of wetlands downstream of BSW Dam
- We are developing an alternate plan for the mitigation

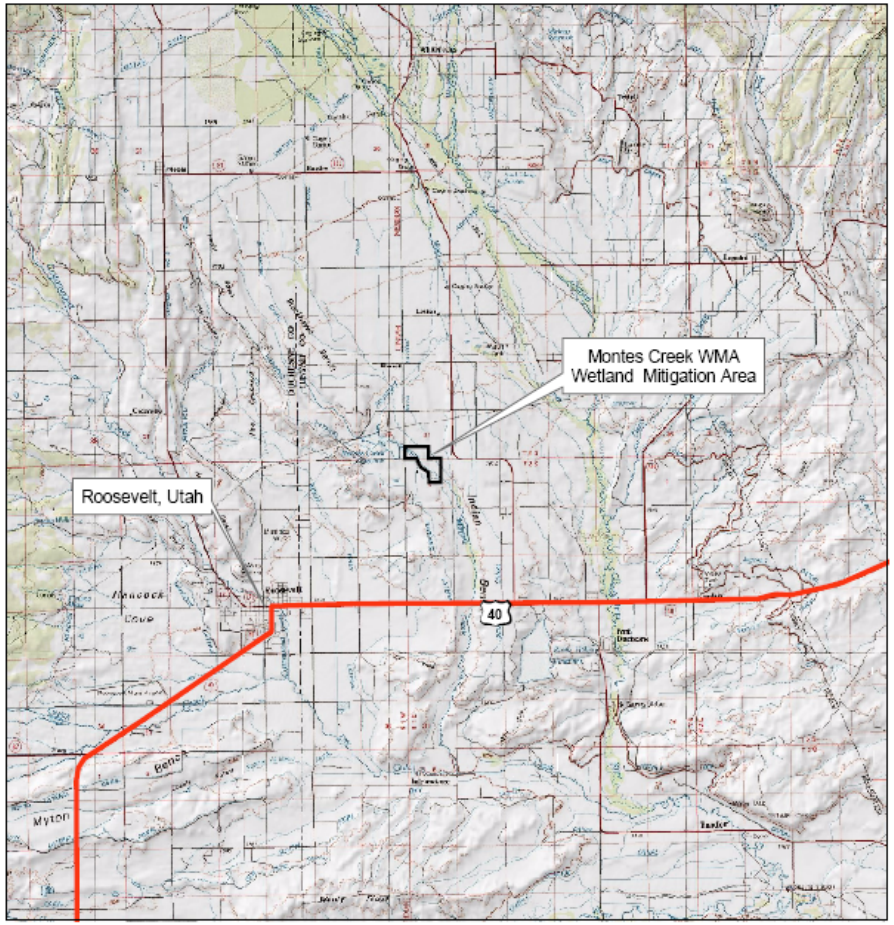
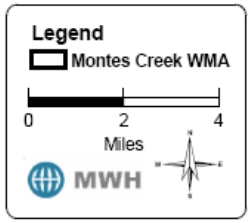
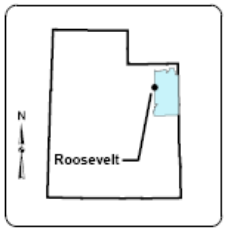
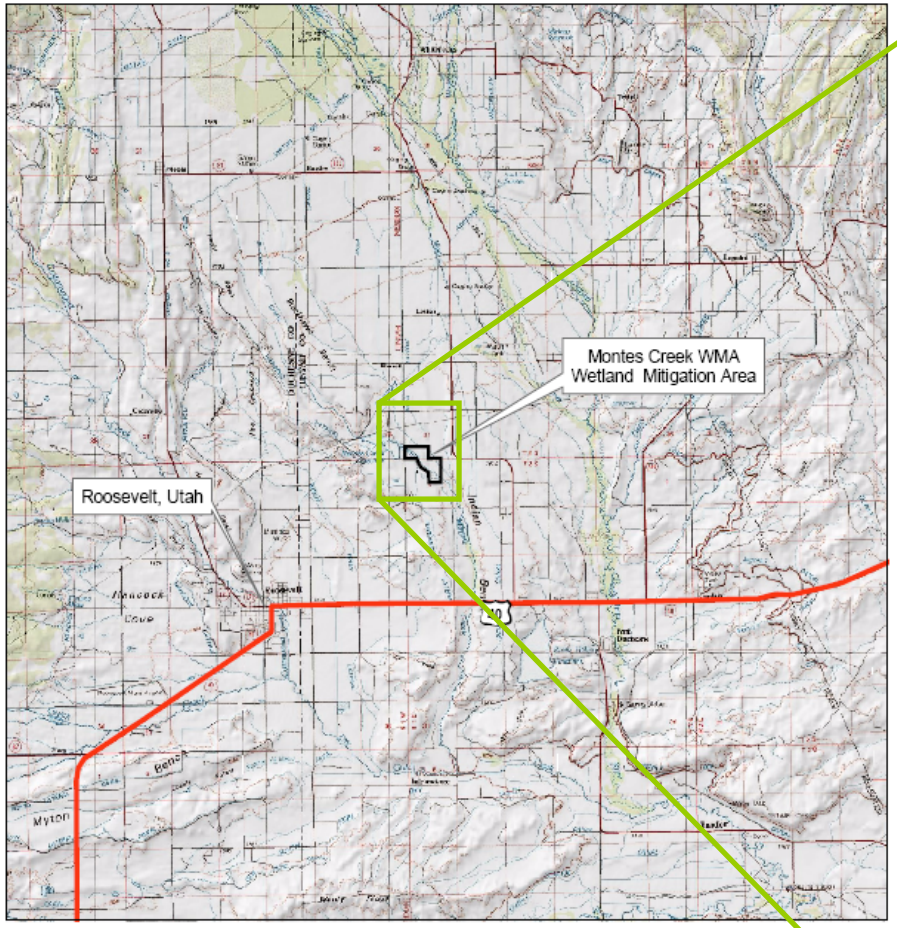


Figure 1
Montes Creek WMA Location Map





The selected site is already owned by the State of Utah, managed by the Utah Division of Wildlife Resources



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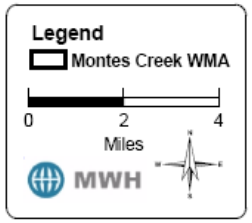

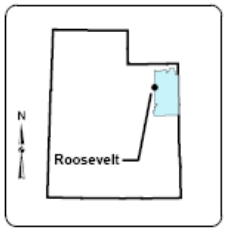

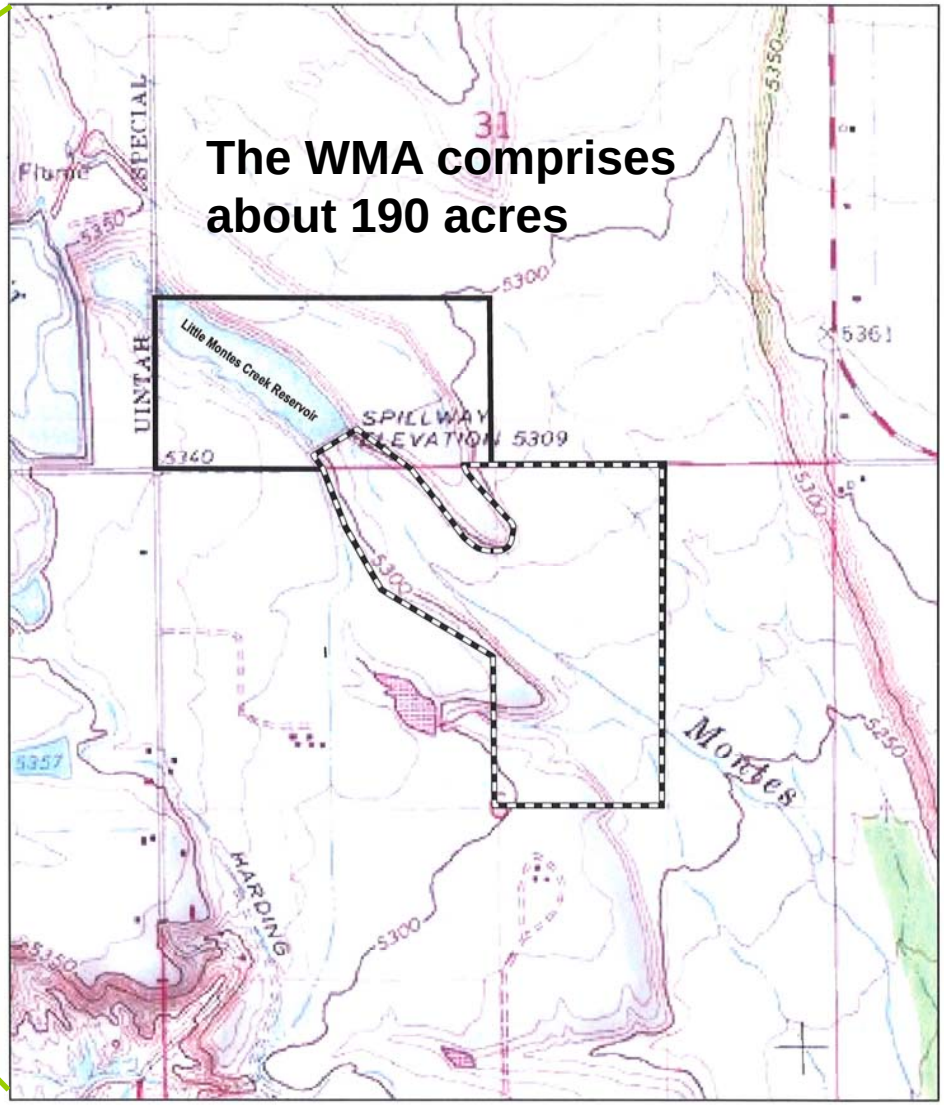

Figure 2
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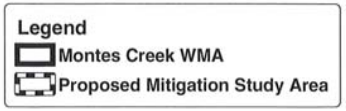
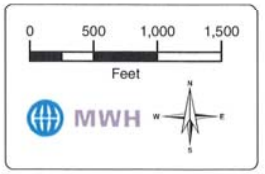
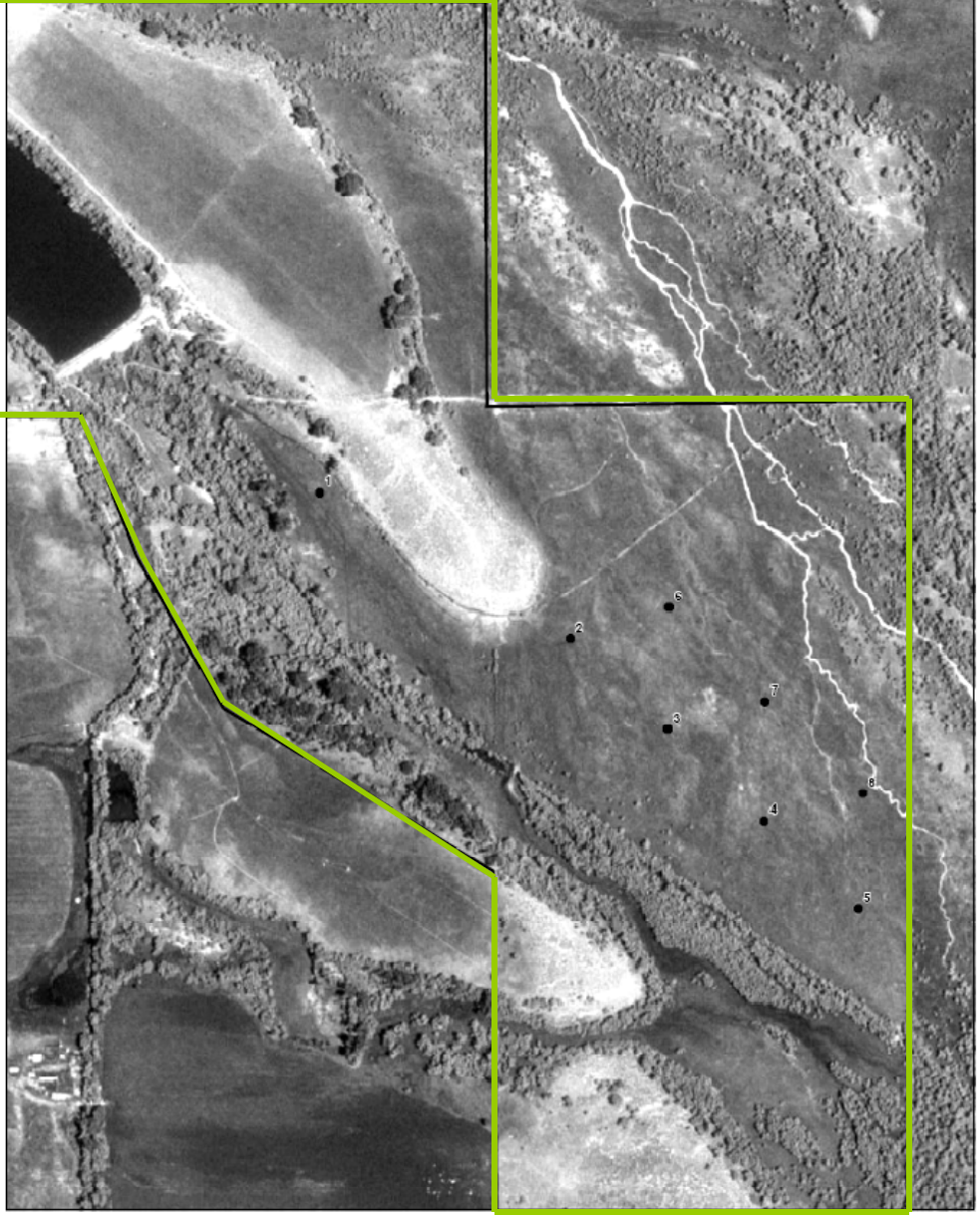






Legend
Montes Creek WMA
Auger Boring/Piezometer
0 200 400
Feet
MWH

Big Sand Wash Reservoir Off-Site Wetland Mitigation
Montes Creek Wildlife Management Area
Proposed Auger Boring/Piezometer Locations

The Montes Creek WMA is also a site being used to mitigate wetlands impacts from reconstruction of the Whiterocks State Fish Hatchery

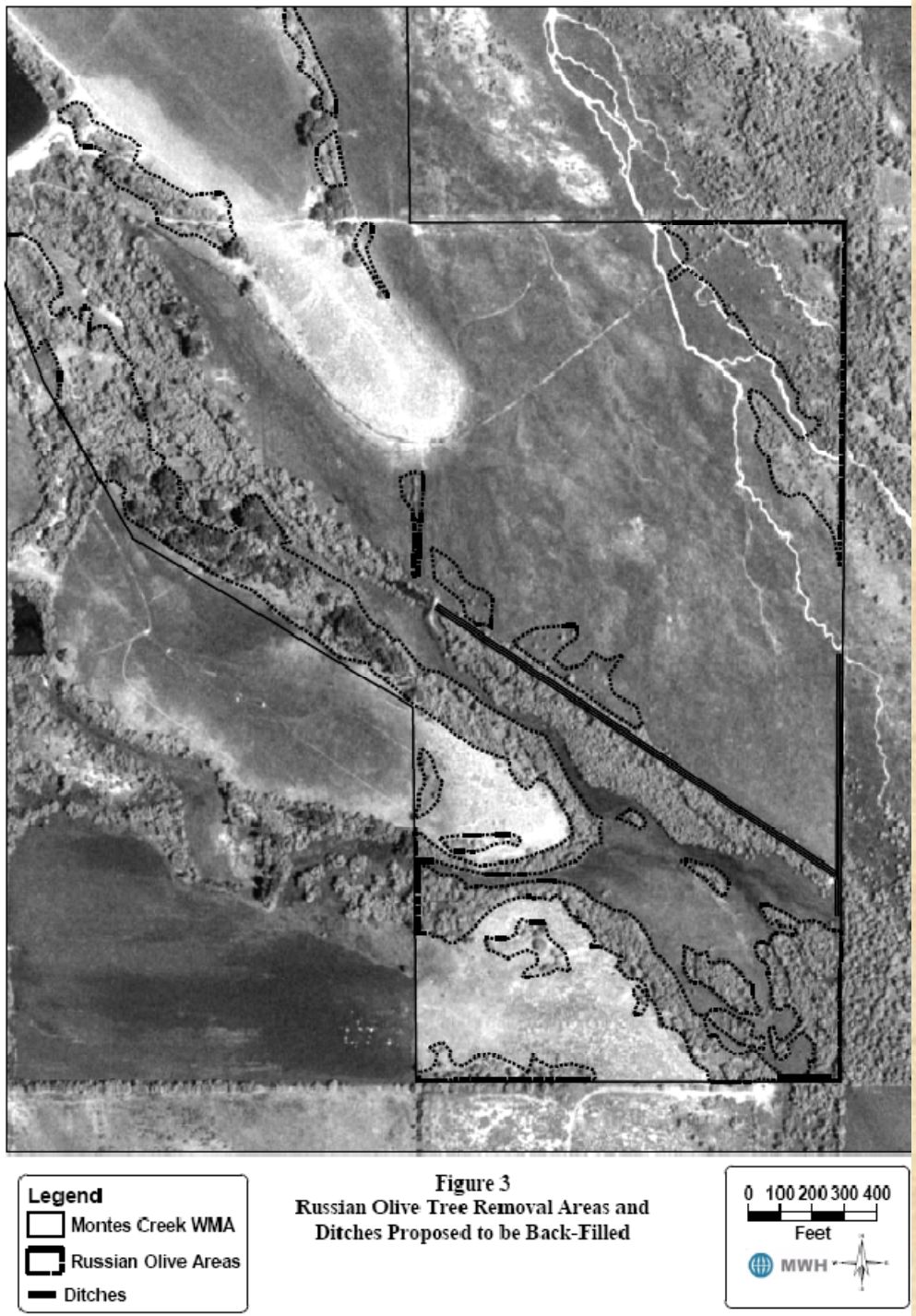
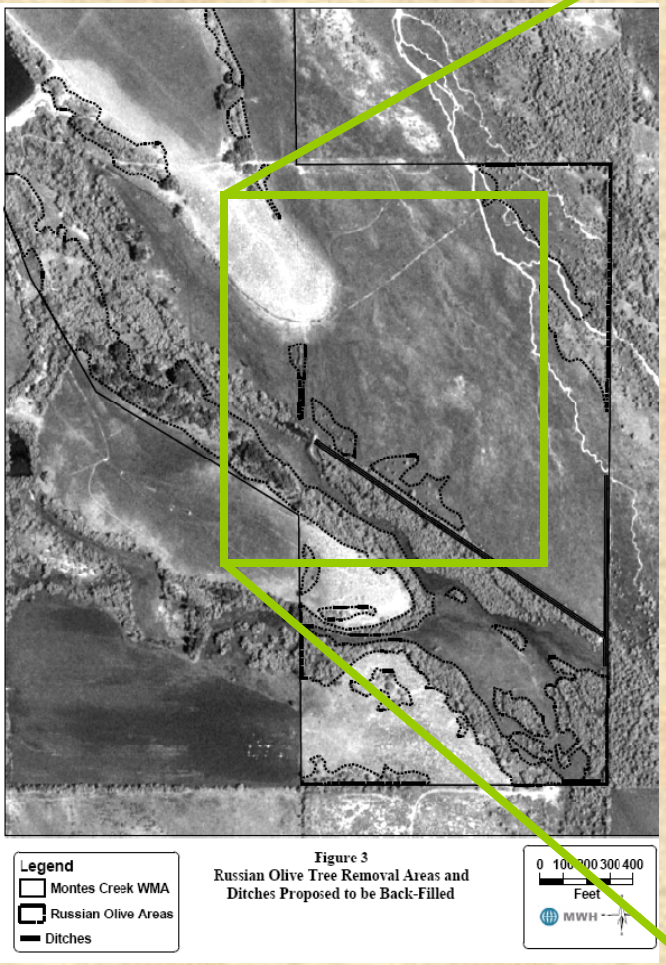


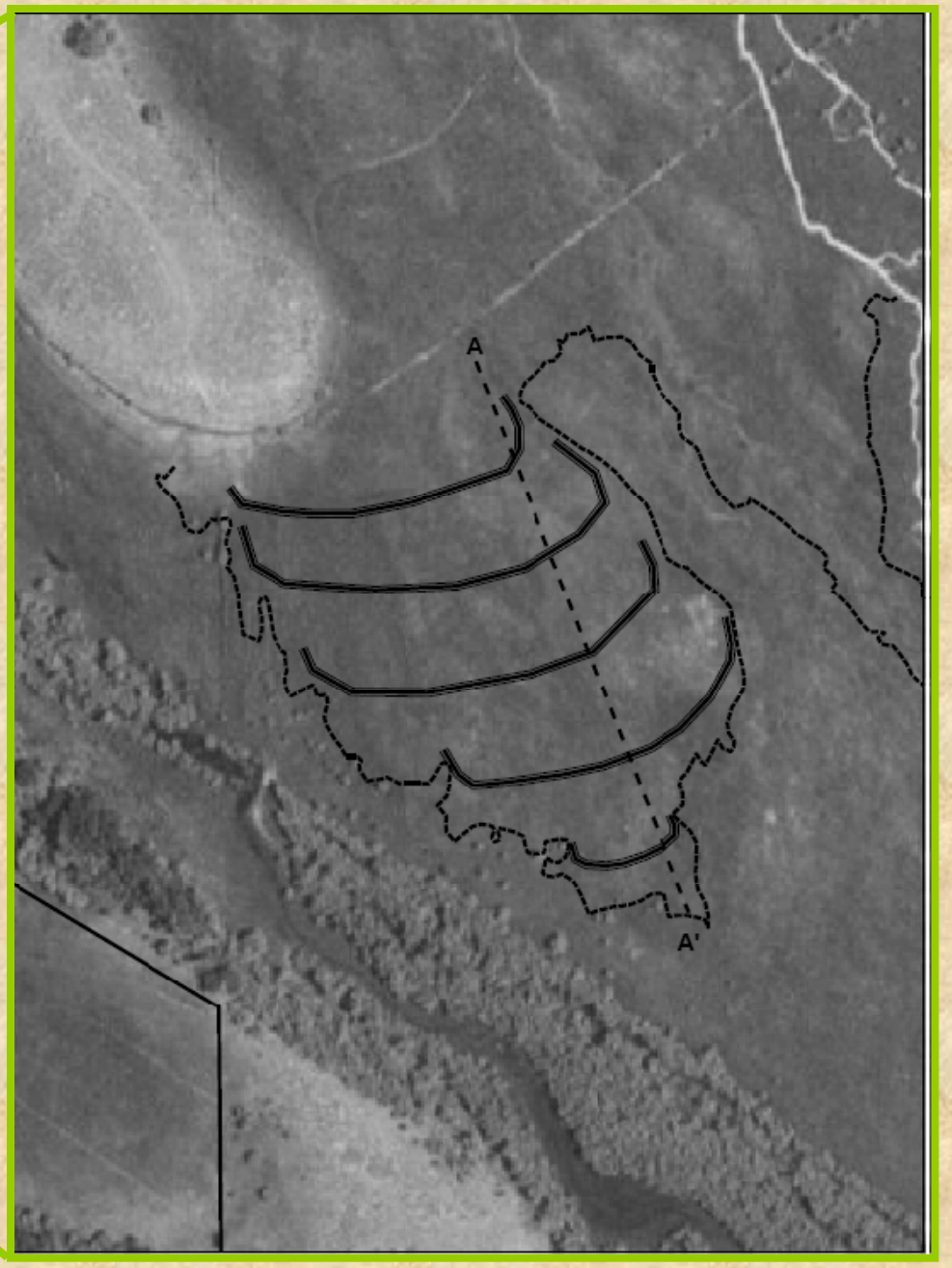
Figure 3
Russian Olive Tree Removal Areas and Ditches Proposed to be Back-Filled

Proposed Russian Olive Treatment Area

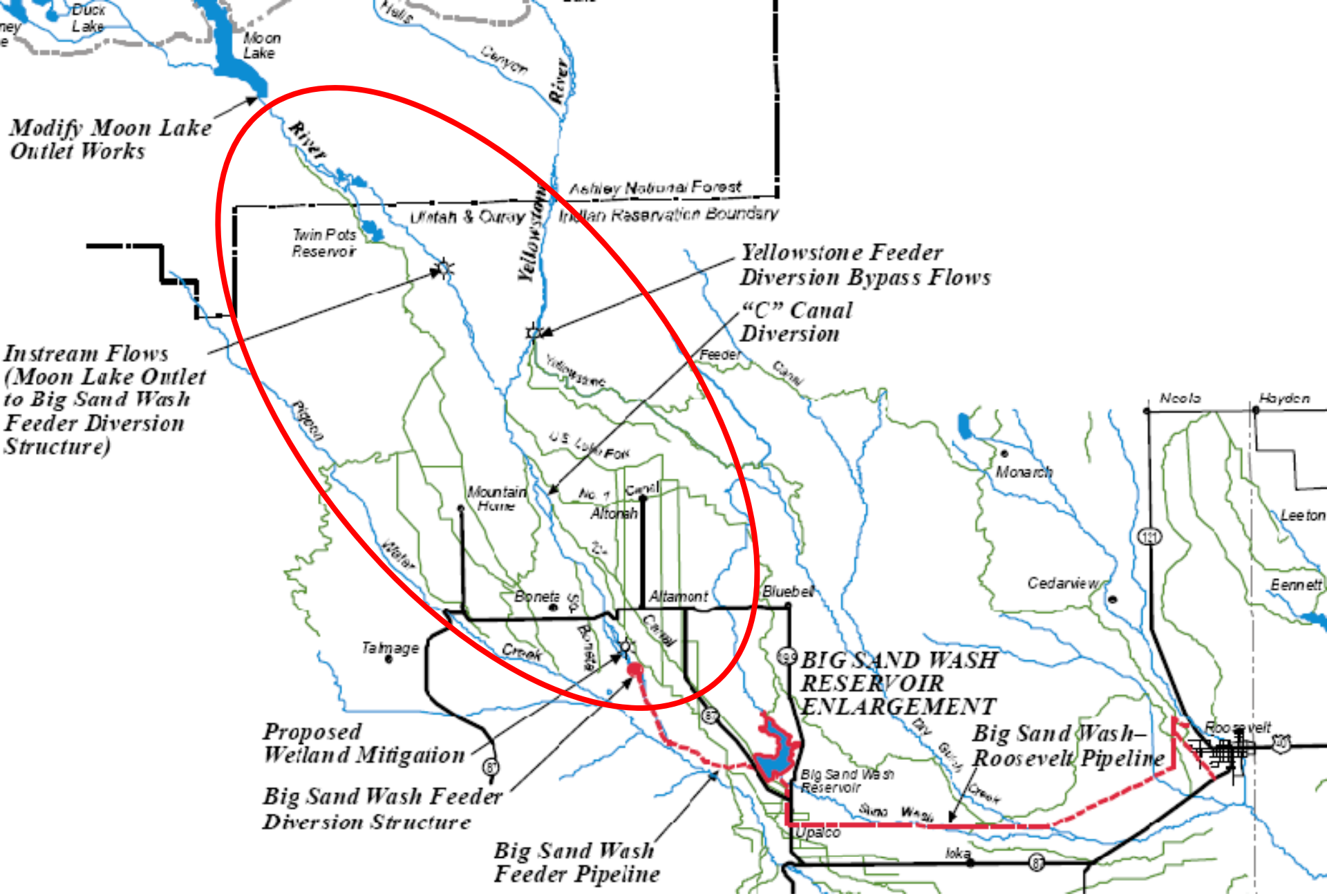
- About 24 acres of riparian vegetation will be treated

Proposed Wetland Creation Area





6.4 acres of wetland will be created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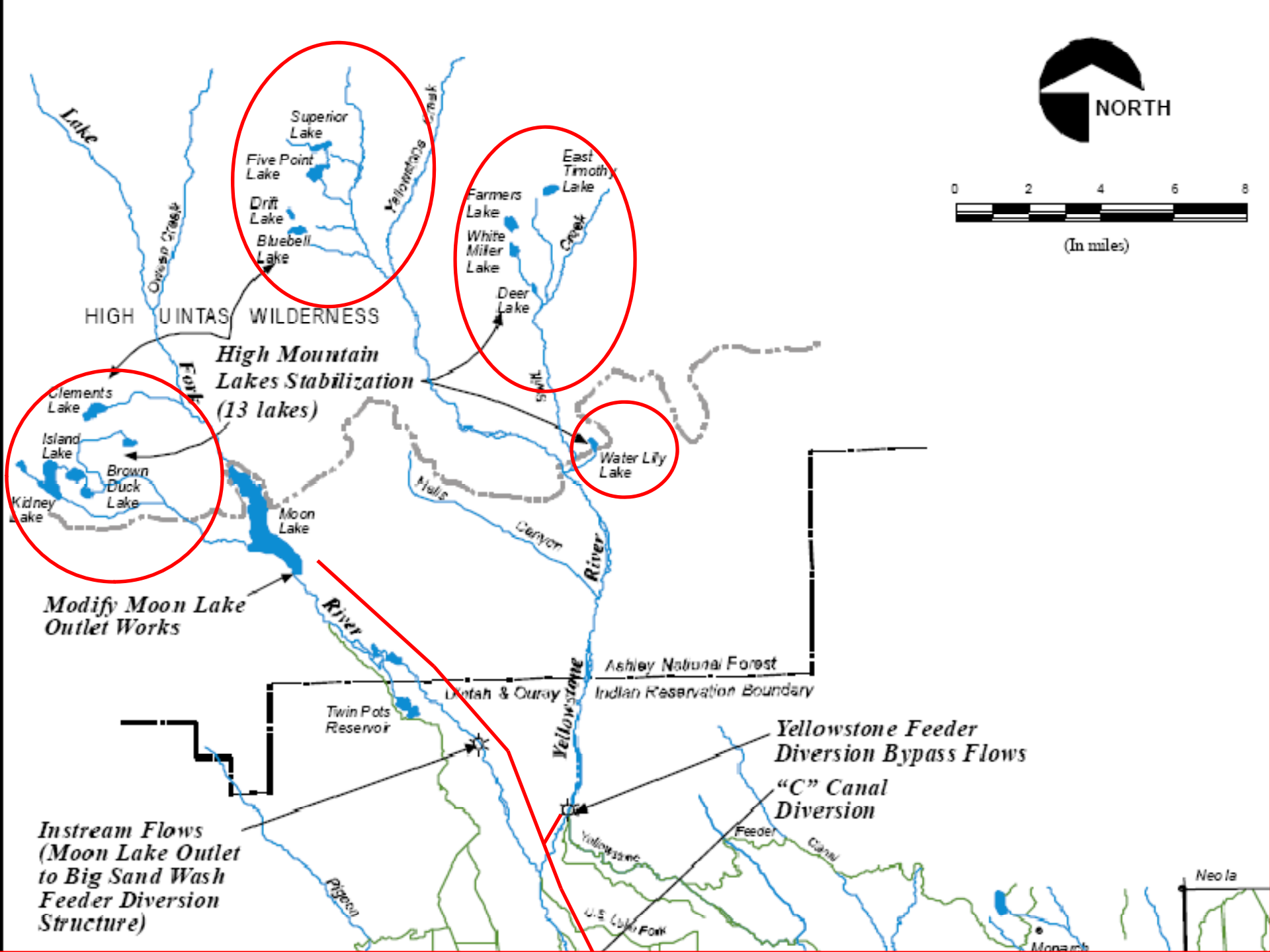
No. 1 Canal
Pigeon Water Creek
Lake Fork
Bottle Hollow Creek


NORTH
0 2 4 6 8
(In miles)
Superior Lake
Five Point Lake
Drift Lake
Bluebell Lake
Yellowstone Creek
East Timothy Lake
Farmers Lake
White Miller Lake
Deer Lake
Miller Creek
Lake Canyon Creek
HIGH UINTAS WILDERNESS
High Mountain Lakes Stabilization (13 lakes)
Clements Lake
Island Lake
Brown Duck Lake
Kidney Lake
Moon Lake
Water Lily Lake
Mills Canyon
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Instream Flows (Moon Lake Outlet to Big Sand Wash Feeder Diversion Structure)
Pigeon
Neola

Stabilization of the Thirteen Uinta Mountains Lakes

- Overriding Goal is to stabilize at “No Hazard” levels and conditions
  - No flood risk greater than natural conditions
  - No maintenance required
  - No inspections required

- Thirteen Lakes in 3 Basins
  - Brown Duck Basin (LF)
  - Garfield Basin (YS)
  - Swift Creek Basin (YS)

Cultural Resource Issues

- **The lakes have interesting and nationally significant cultural resource value**

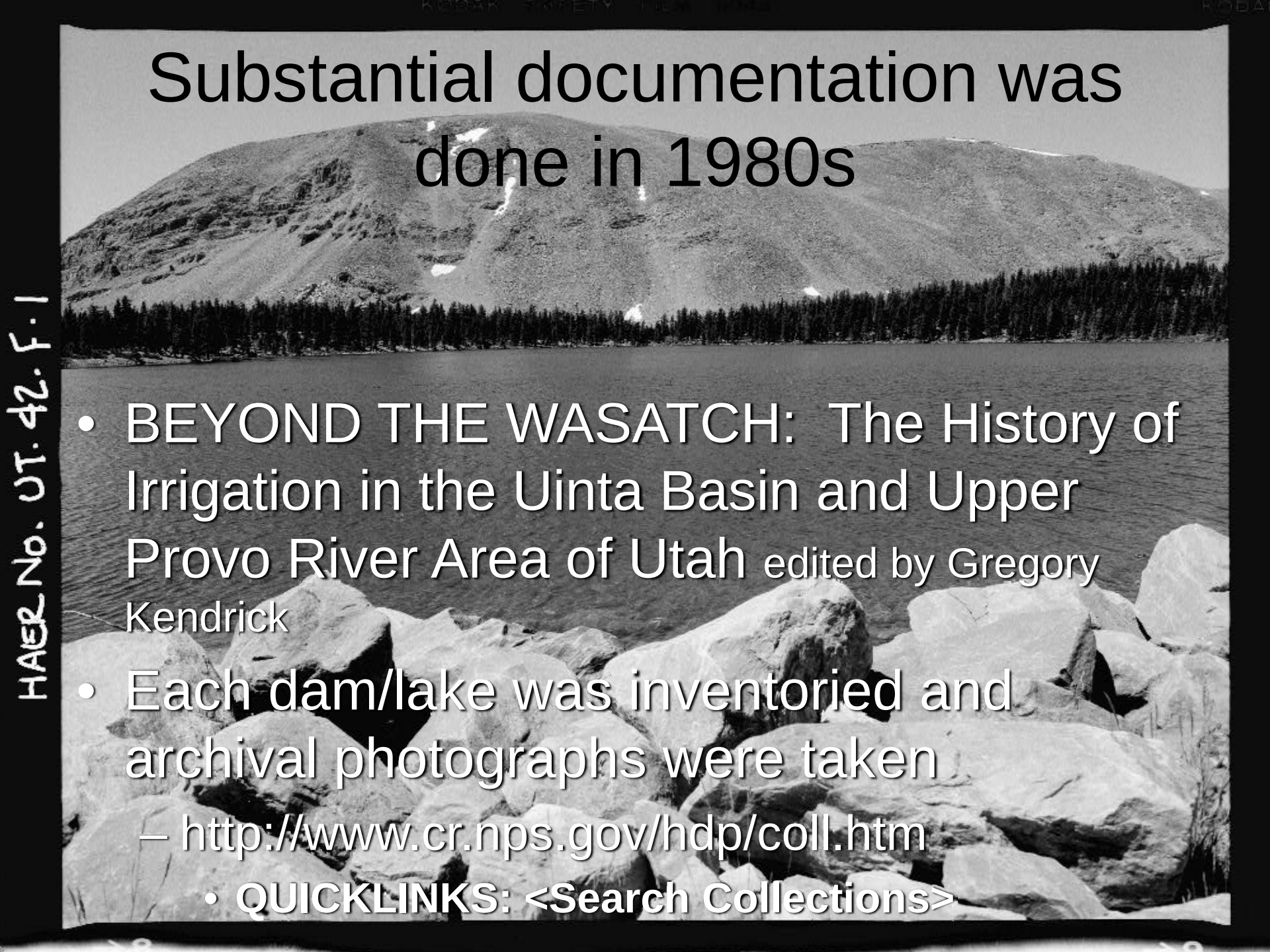
- **All Dams are on the National Register of Historic Places**

Mitigation for Adverse Effects

- **Leave portions of dams intact**

•HAER Documentation
Interpretive displays at 2 USFS sites (trailheads or campgrounds)

Substantial documentation was done in 1980s



- BEYOND THE WASATCH: The History of Irrigation in the Uinta Basin and Upper Provo River Area of Utah edited by Gregory Kendrick
- Each dam/lake was inventoried and archival photographs were taken
  - http://www.cr.nps.gov/hdp/coll.htm
    - **QUICKLINKS: <Search Collections>**