

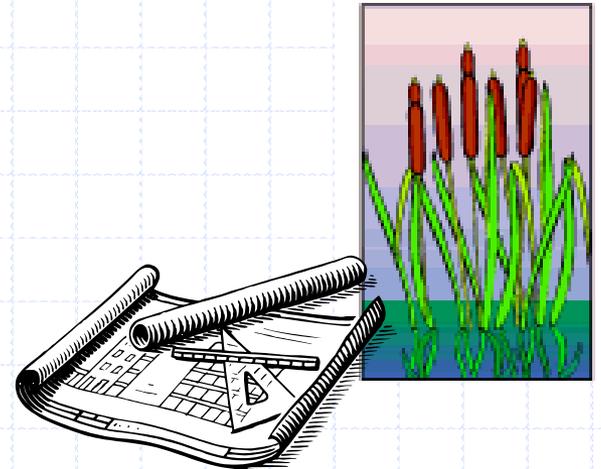
Wetland Creation and Restoration

Partnering with NMDOT

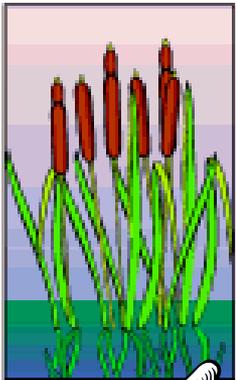


Why Does NMDOT Build Wetlands?

- ◆ The New Mexico Department of Transportation (NMDOT) mitigates for wetland impacts from transportation projects

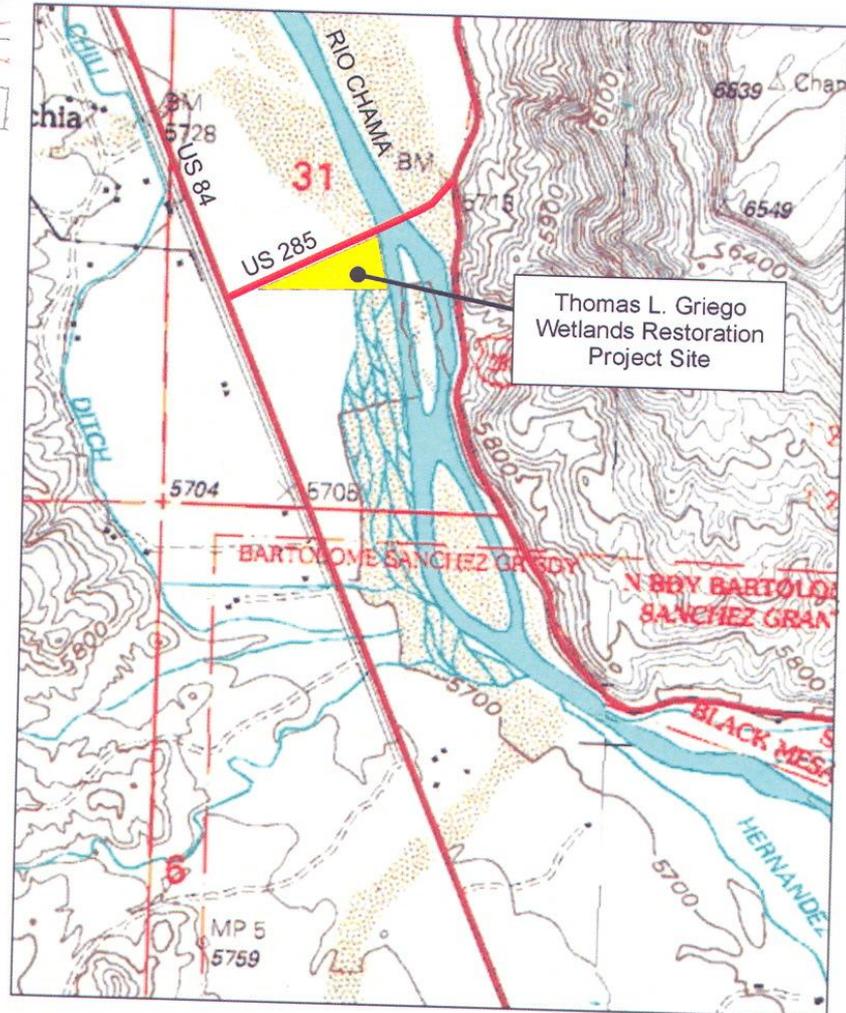


Griego Wetland

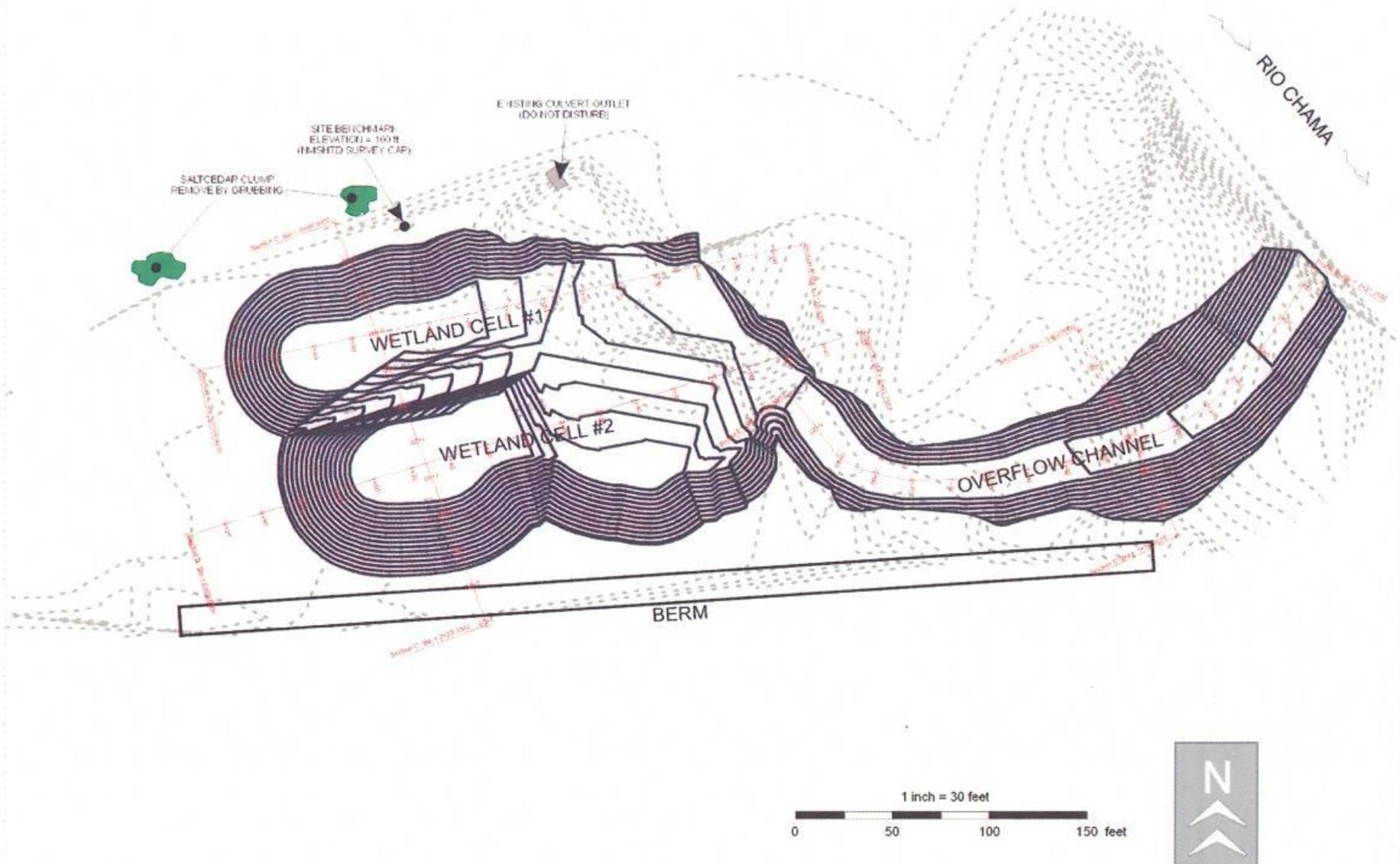


Site Location:
Rio Arriba County, New Mexico
SW 1/4 Sec. 31, T 22 N, R 8 E (NMPM)
36° 5' 34" N, 106° 7' 52" W

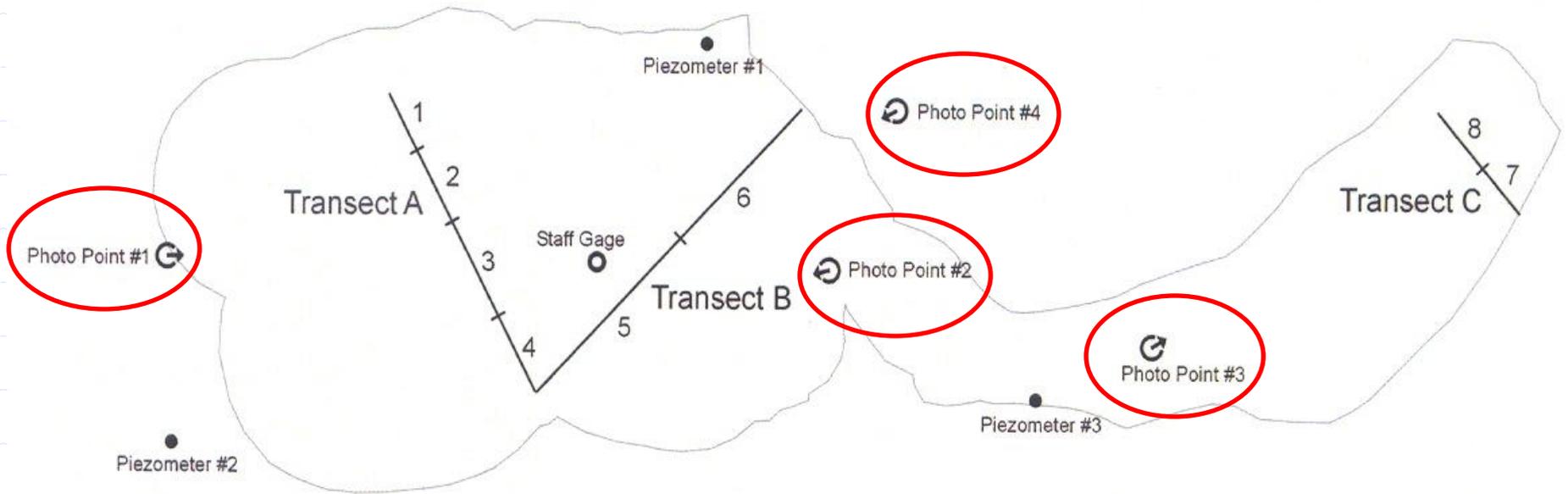
Elevation:
1,734 m (5,690 ft) ASL



Griego Wetland Plan



Griego Wetland Photo Points



Griego Wetland Photo Point 1

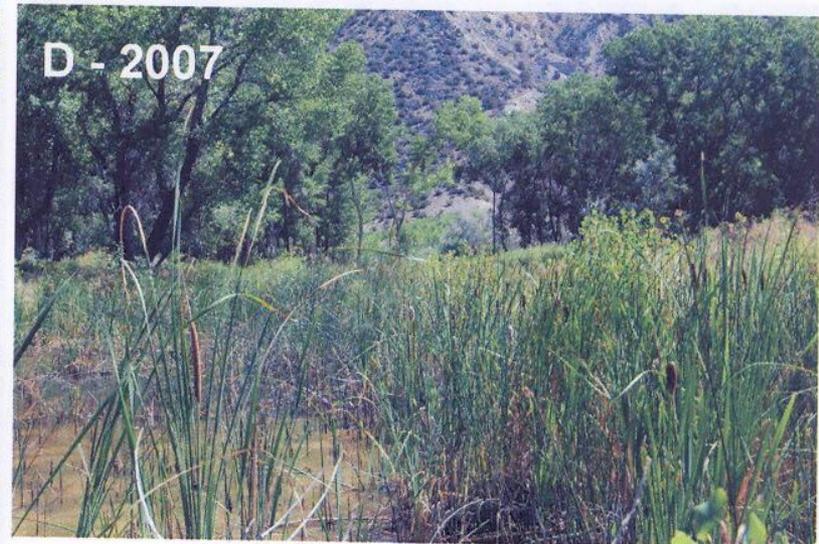
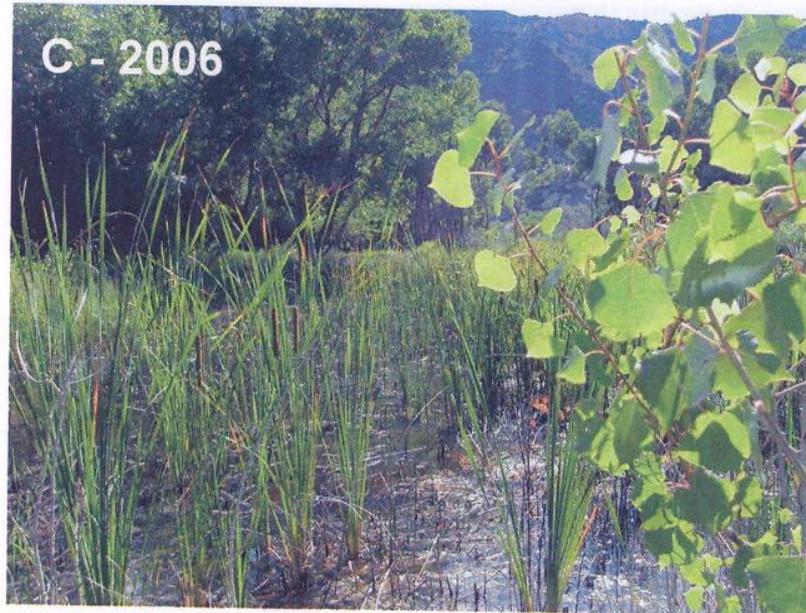
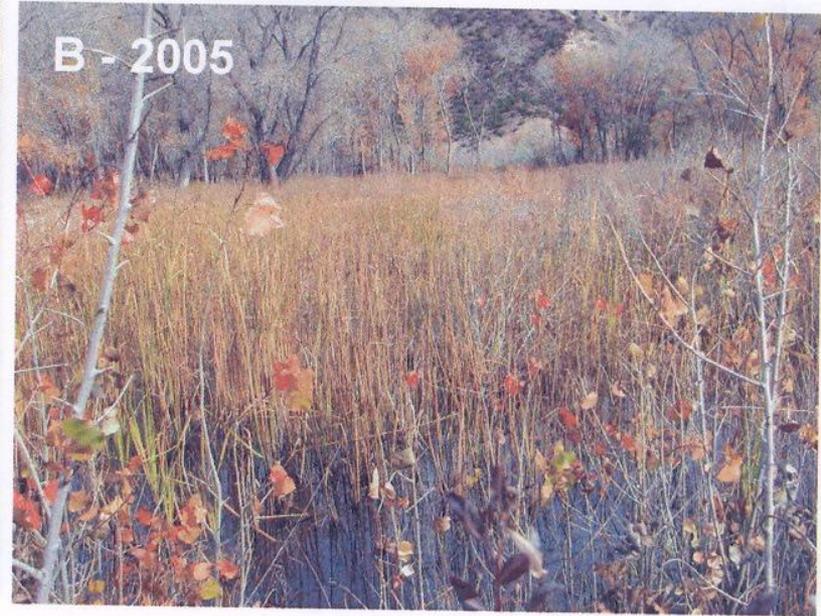


Figure 4. Photo point #1 on 16 August 2004.



Figure 5. Photo point #1 on 30 May 2003, immediately following surface grading.

Figure 8. Photo point #1 on 16 August 2004 (A), 9 November 2005 (B), 18 August 2006 (C), and 28 August 2007 (D).



Griego Wetland Photo Point 2



Figure 6. Photo point #2 on 16 August 2004.

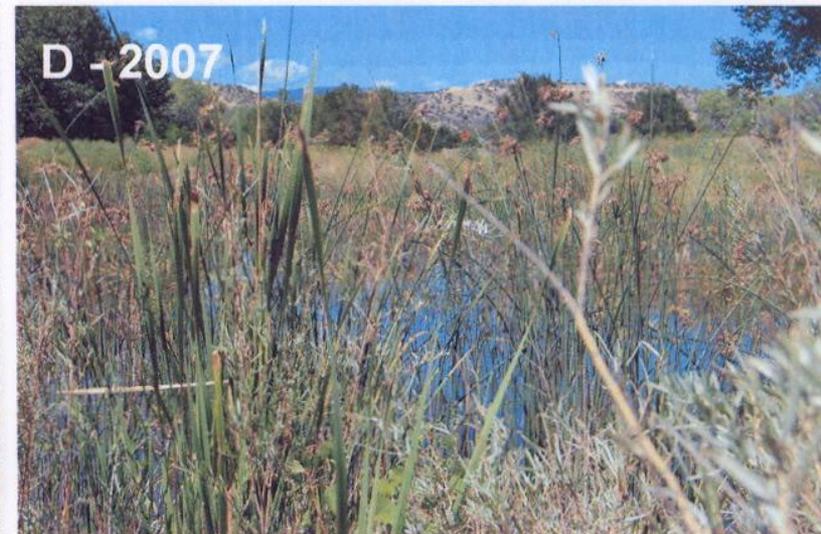
Figure 8. Photo point #3 on 16 August 2004.



Figure 7. Photo point #2 on 30 May 2003, immediately following surface grading.

Figure 9. Photo point #3 on 30 May 2003, immediately following surface grading.

Figure 9. Photo point #2 on 16 August 2004 (A), 9 November 2005 (B), 18 August 2006 (C), and 28 August 2007 (D).



Griego Wetland Photo Point 3



Figure 8. Photo point #3 on 16 August 2004.

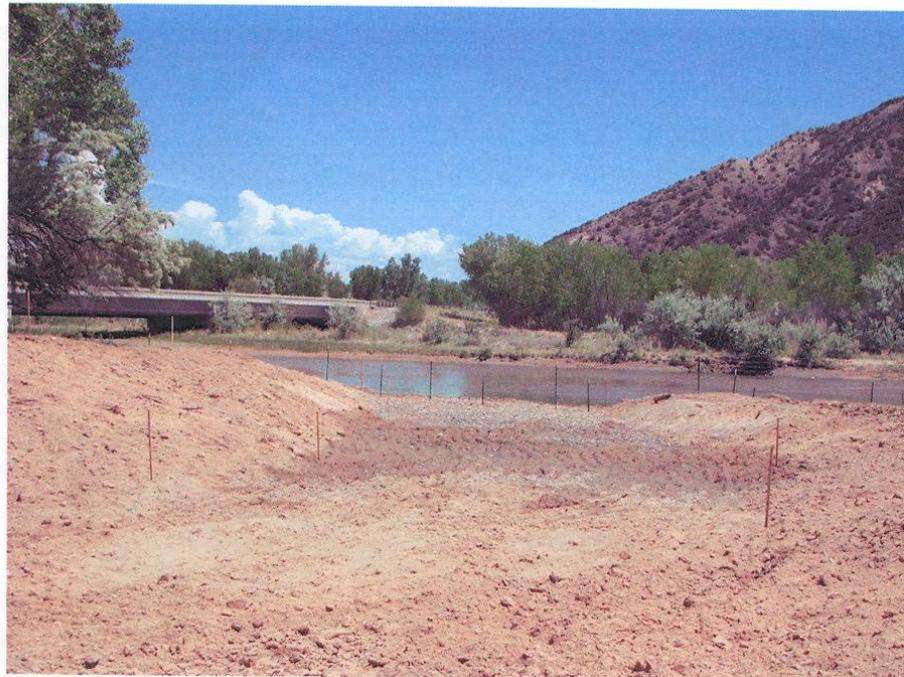
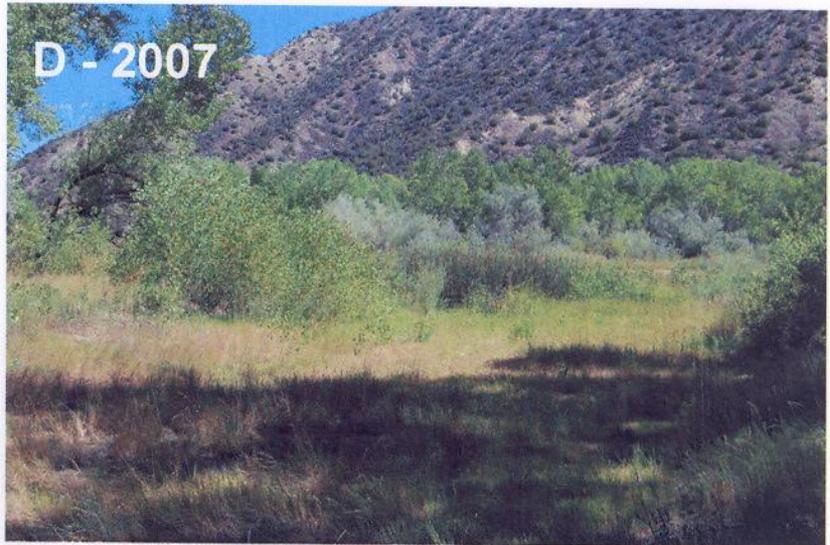


Figure 9. Photo point #3 on 30 May 2003, immediately following surface grading.

Figure 10. Photo point #3 on 16 August 2004 (A), 9 November 2005 (B), 18 August 2006 (C), and 28 August 2007 (D).



Griego Wetland Photo Point 4

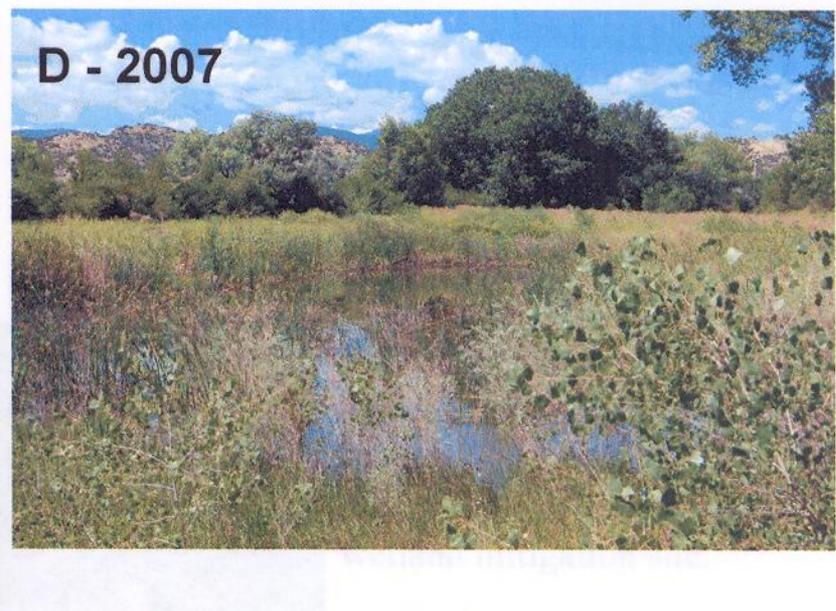


Figure 10. Photo point #4 on 16 August 2004.

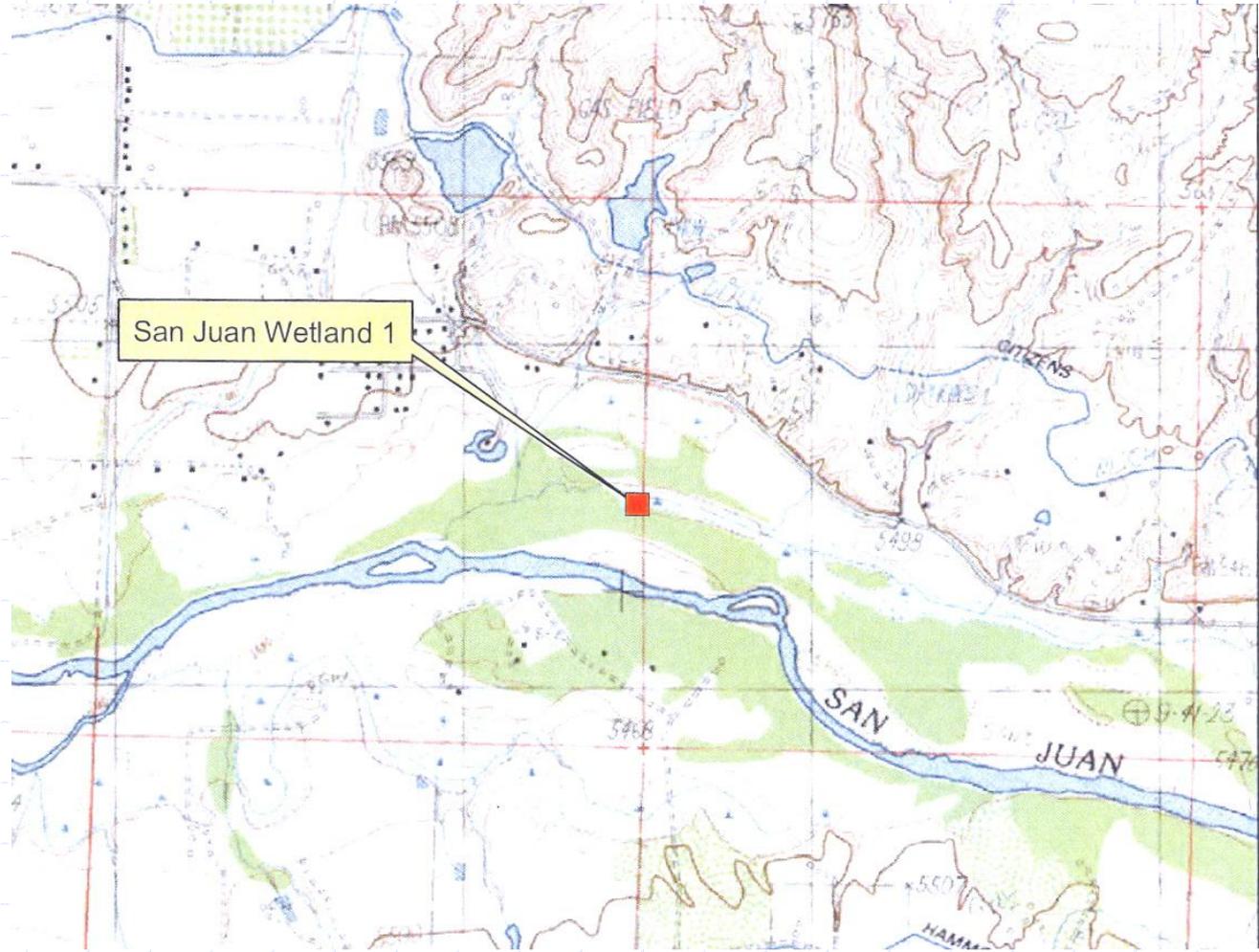
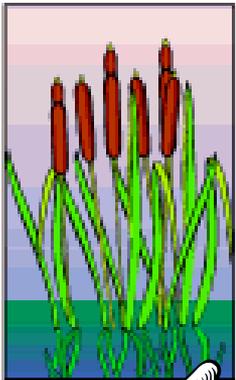


Figure 11. Photo point #4 on 30 May 2003, immediately following surface grading.

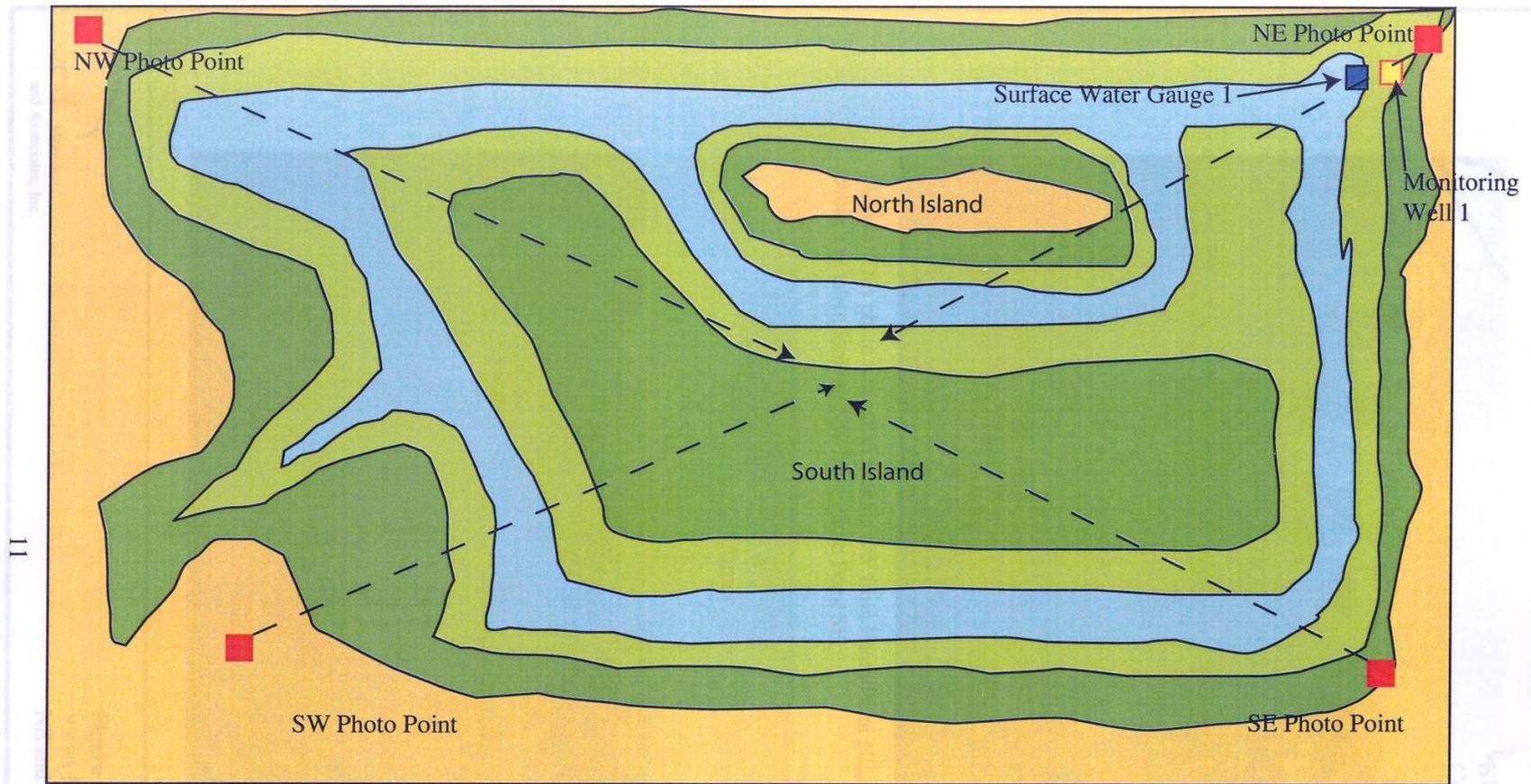
Figure 11. Photo point #4 on 16 August 2004 (A), 9 November 2005 (B), 18 August 2006 (C), and 28 August 2007 (D).

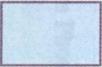
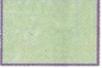
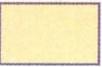


Bloomfield Wetland



Bloomfield Wetland Plan

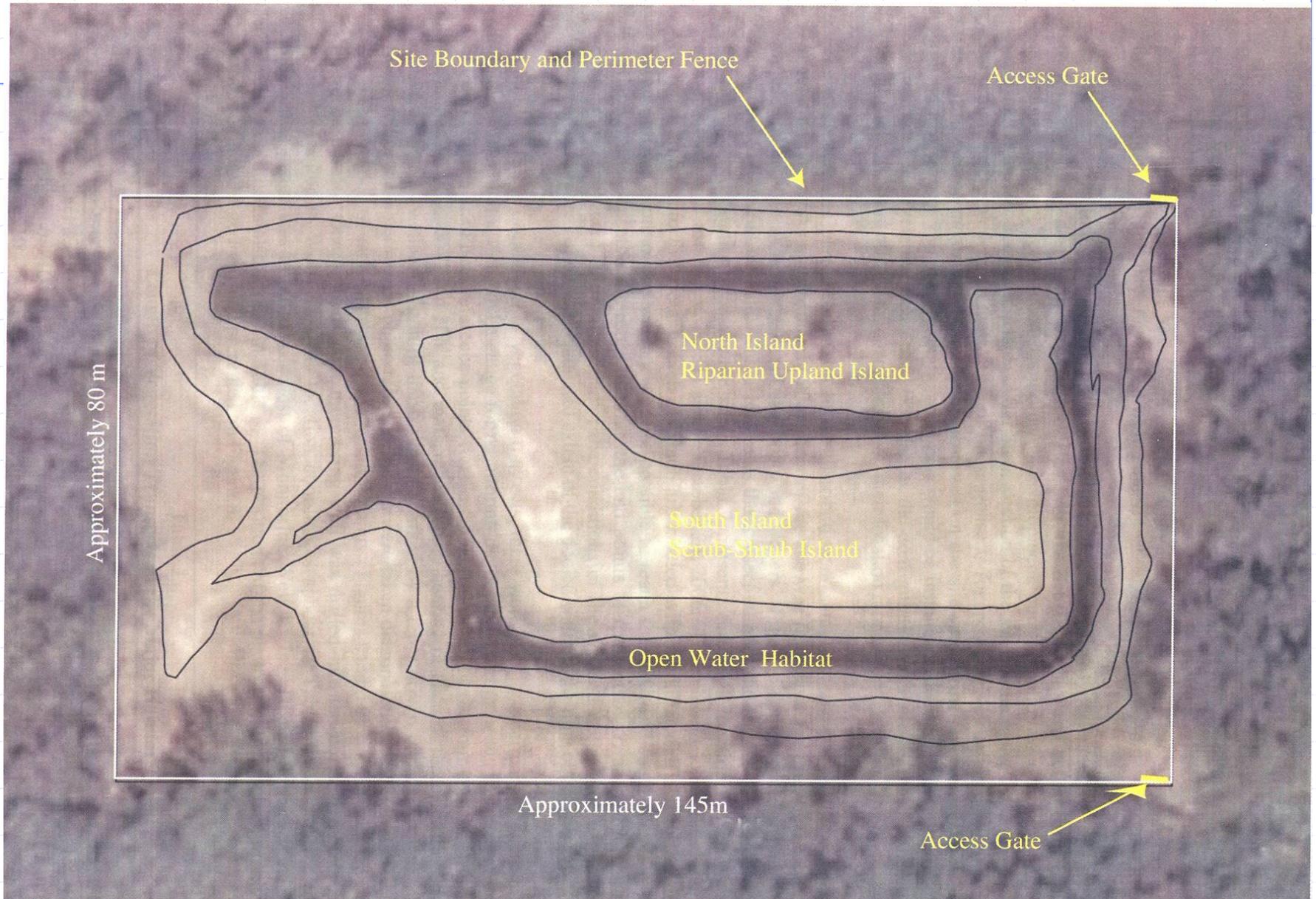


-  Open Water Habitat
-  Palustrine Emergent Habitat
-  Scrub-Shrub Habitat
-  Riparian Upland

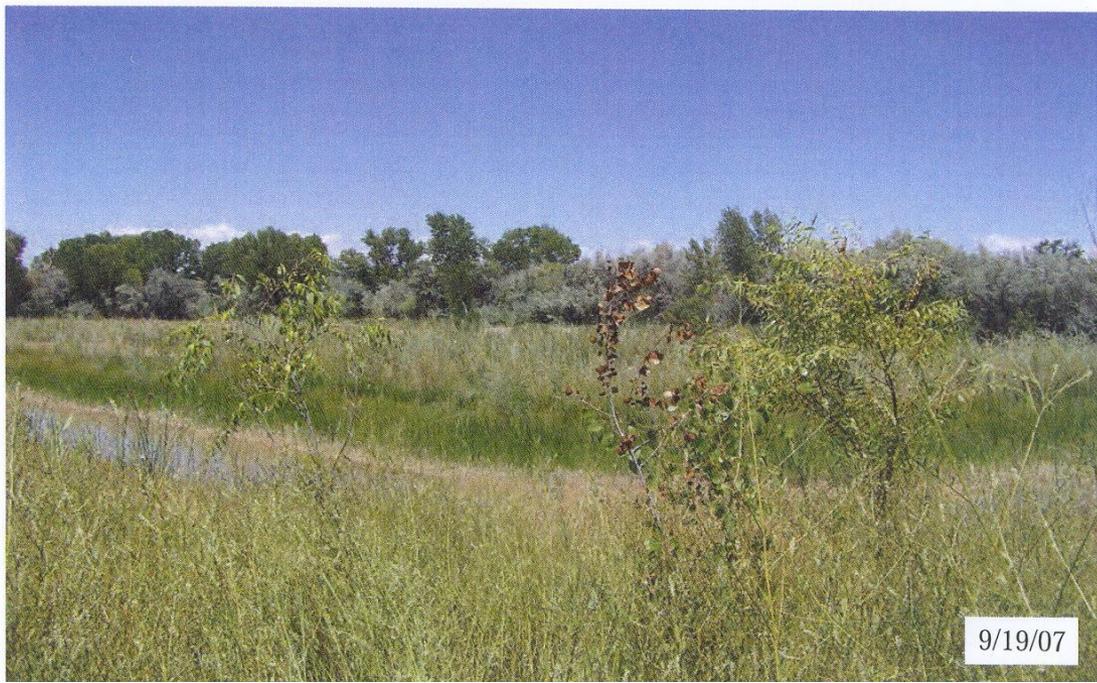


25m
Scale Approximate

Completed Bloomfield Wetland Aerial



Bloomfield
Wetland
Photo
NW Corner



Bloomfield
Wetland
Photo
SW Corner



Bloomfield
Wetland
Photo
NE Corner



Bloomfield
Wetland
Photo
SE Corner



Bloomfield Wetland Was Designed For



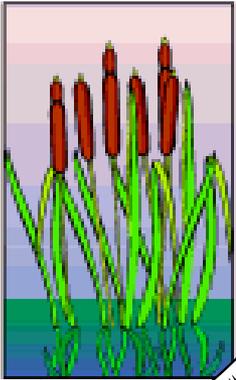
Northern Leopard Frog (*Rana pipens*)

Other Visitors....



Placer Creek Project Area

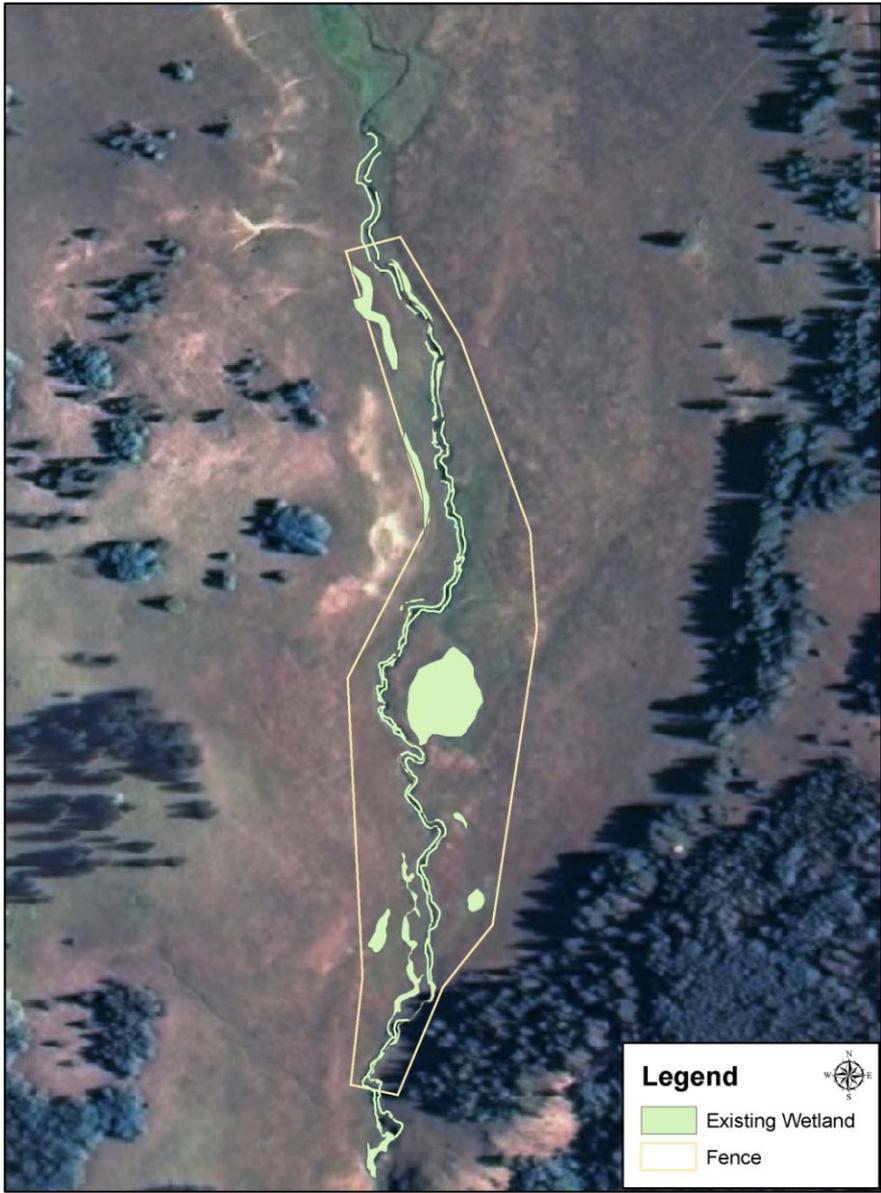
Placer Creek



Placer Creek Wetland Creation and Habitat Restoration



Placer Creek Existing Wetland Areas



500 250 0 500 Feet

Placer Creek Wetland Mitigation Project Projected Created Wetland Area



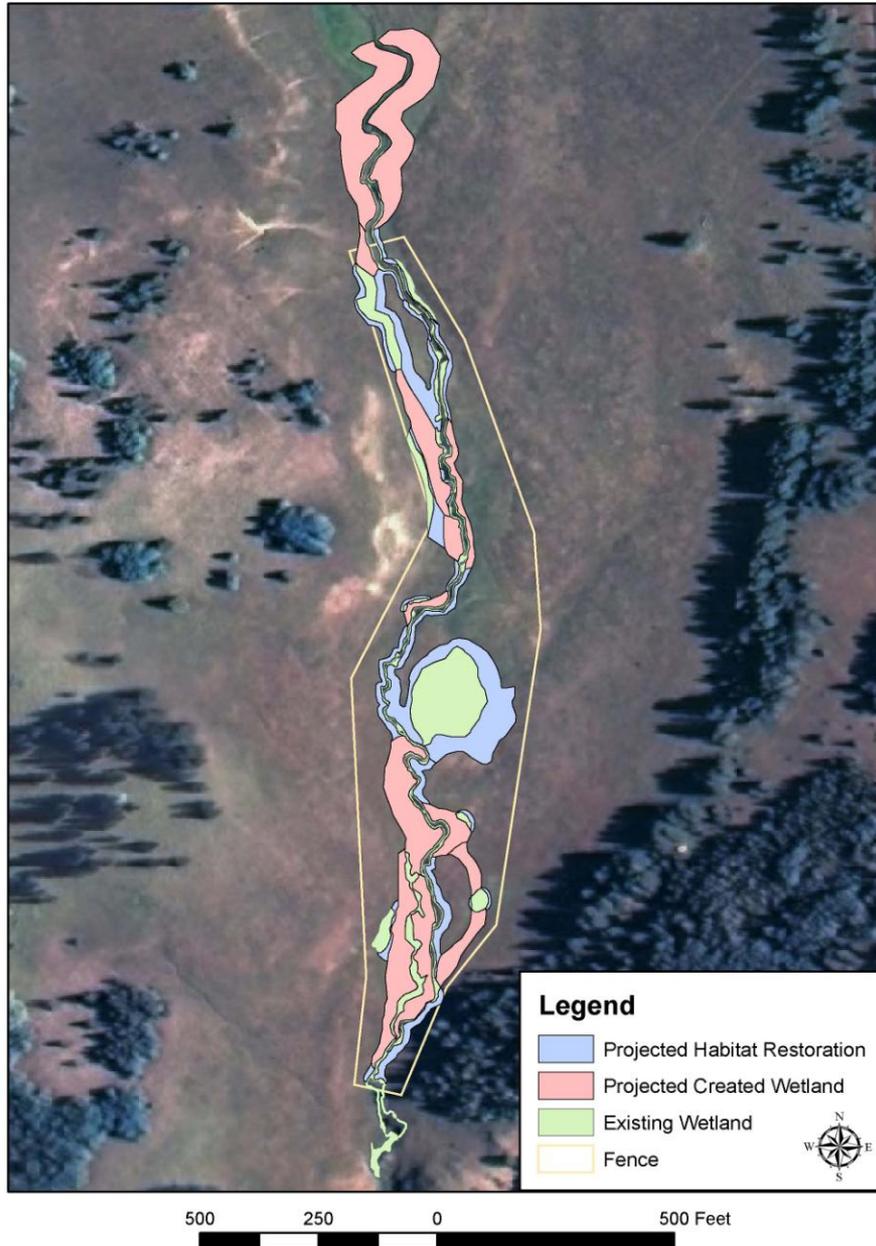
500 250 0 500 Feet

Placer Creek Wetland Mitigation Project Projected Habitat Restoration Area



500 250 0 500 Feet

Placer Creek Wetland Mitigation Project Projected Created Wetland and Habitat Restoration Areas



Staking Locations for Instream Structures



Head cut



2009.08.04

Installing Double Zuni Bowl



Completed Double Zuni Bowl



10.15.2009 11:20

One Year Later....



One Rock Dam Prep



2009.08.05



One
Rock
Dam
Install

2009.08.04



Completed
One
Rock
Dam

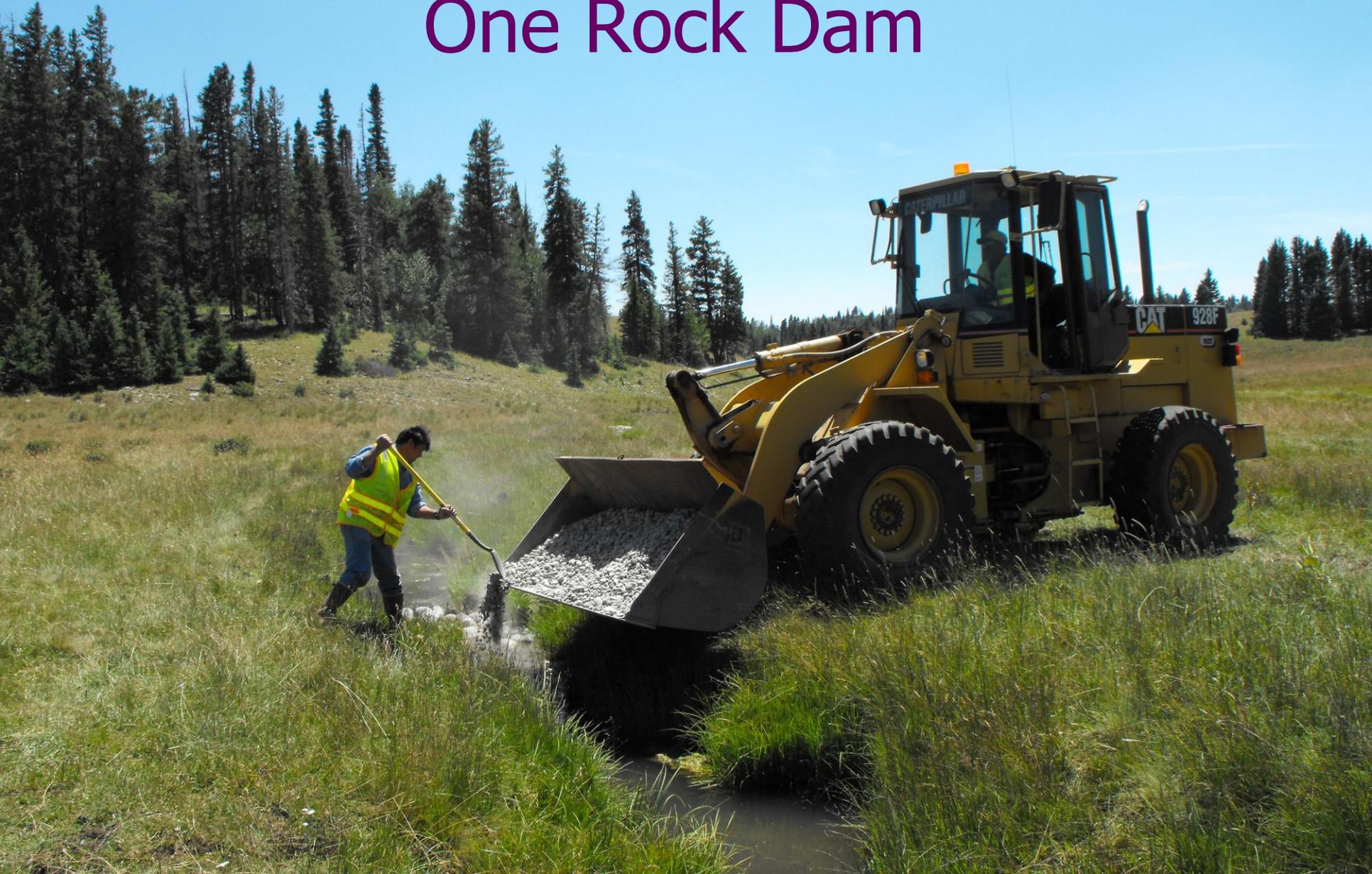
One year later...



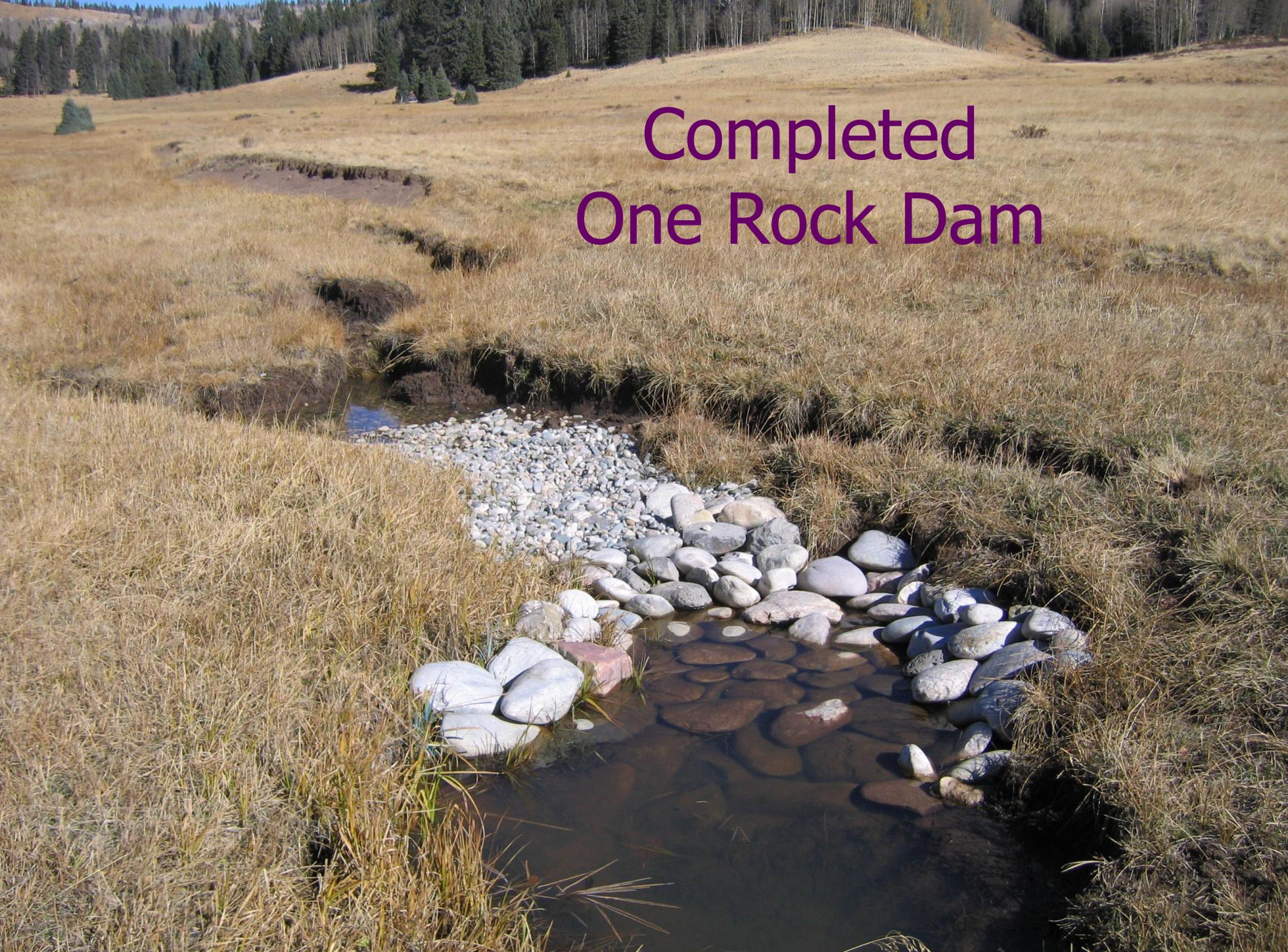
Using Mechanical Equipment during One Rock Dam Installations



Installing a Glide Leading to a One Rock Dam



Completed One Rock Dam



One Year Later...



Completed One Rock Dam

10.15.2009 13:03

One Year Later...





Fish Scaling of Rock

10.15.2009 13:03

Installing a Cross Vane



2009.08.10



Completed
Cross Vane
View Downstream

10.15.2009 11:57



Completed
Cross Vane
View Upstream

One Year Later...



Completed Sod Baffle



One Year Later...



Fence Installed



Deeper Pools for Fish



Wetland Creation/Restoration Site Requirements



- ◆ Mitigation sites must be designed to
 - Support wetland vegetation
 - Sustain independent wetland hydrology
 - Create wetland type soils
 - Meet mitigation and restoration objectives

Wetland Creation, Monitoring, and Maintenance



- ◆ NMDOT performs site evaluations (biological and cultural resources surveys) and obtains and regulatory permits
- ◆ NMDOT constructs the wetland/restoration site
- ◆ NMDOT performs annual maintenance and monitoring of mitigation sites following construction for a specified time frame

Where's the \$\$\$\$?



- ◆ Funding for building wetland/restoration mitigation projects is tied to NMDOT roadway construction project funds
- ◆ Wetland/restoration mitigation projects must be built concurrently or ahead of the roadway construction project

What Does This Mean?



- ◆ Mitigation projects have to be in the vicinity/same watershed as the roadway project
- ◆ Mitigation project location and type must meet approval of the US Army Corps of Engineers

How Can I Partner With NMDOT on My Project?



- ◆ Contact us
- ◆ Provide project location, size, type, and land ownership
- ◆ If your project meets our mitigation requirements, then we can discuss an agreement to build the project

Partnership Agreements



- ◆ Formal agreements are entered into with land owners/managers for all NMDOT created wetlands to remain wetlands for a designated amount of time
- ◆ Agreements must allow the NMDOT to monitor and maintain the site to meet regulatory requirements

Examples of Current and Past Partnerships

- ◆ Carson National Forest
- ◆ Bureau of Land Management
- ◆ State Land Office
- ◆ New Mexico State Parks
- ◆ Vermejo Park Ranch
- ◆ Piojo Ranch
- ◆ Mescalero Apache
- ◆ Jicarilla Apache



When Will it Happen?

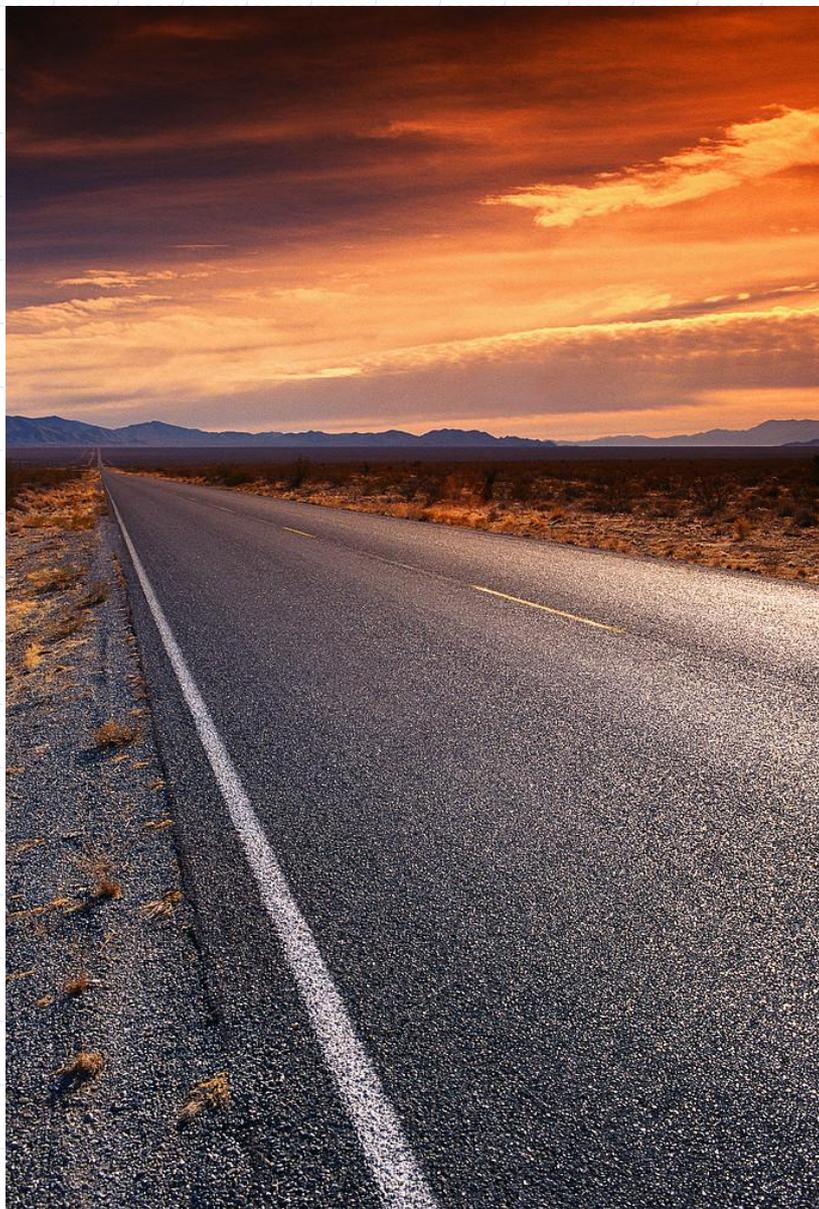


- ◆ Contact with us with your wetland creation/restoration project locations
- ◆ We will keep track of them by watershed location
- ◆ When we have a roadway project in your area that needs mitigation, your project will be evaluated for suitability

Our Current Needs

- ◆ We are currently looking riparian areas to plant/restore in the Las Cruces area
Contact Curt Frischkorn (505) 827-1874
Email: curt.frischkorn@state.nm.us





NMDOT Environmental Division Contacts

◆ Christina Kelso
(505) 827-1873
christina.kelso@state.nm.us

◆ Lori Walton
(505) 490-2649
lori.walton@state.nm.us